

March 2021

# From recovery to expansion

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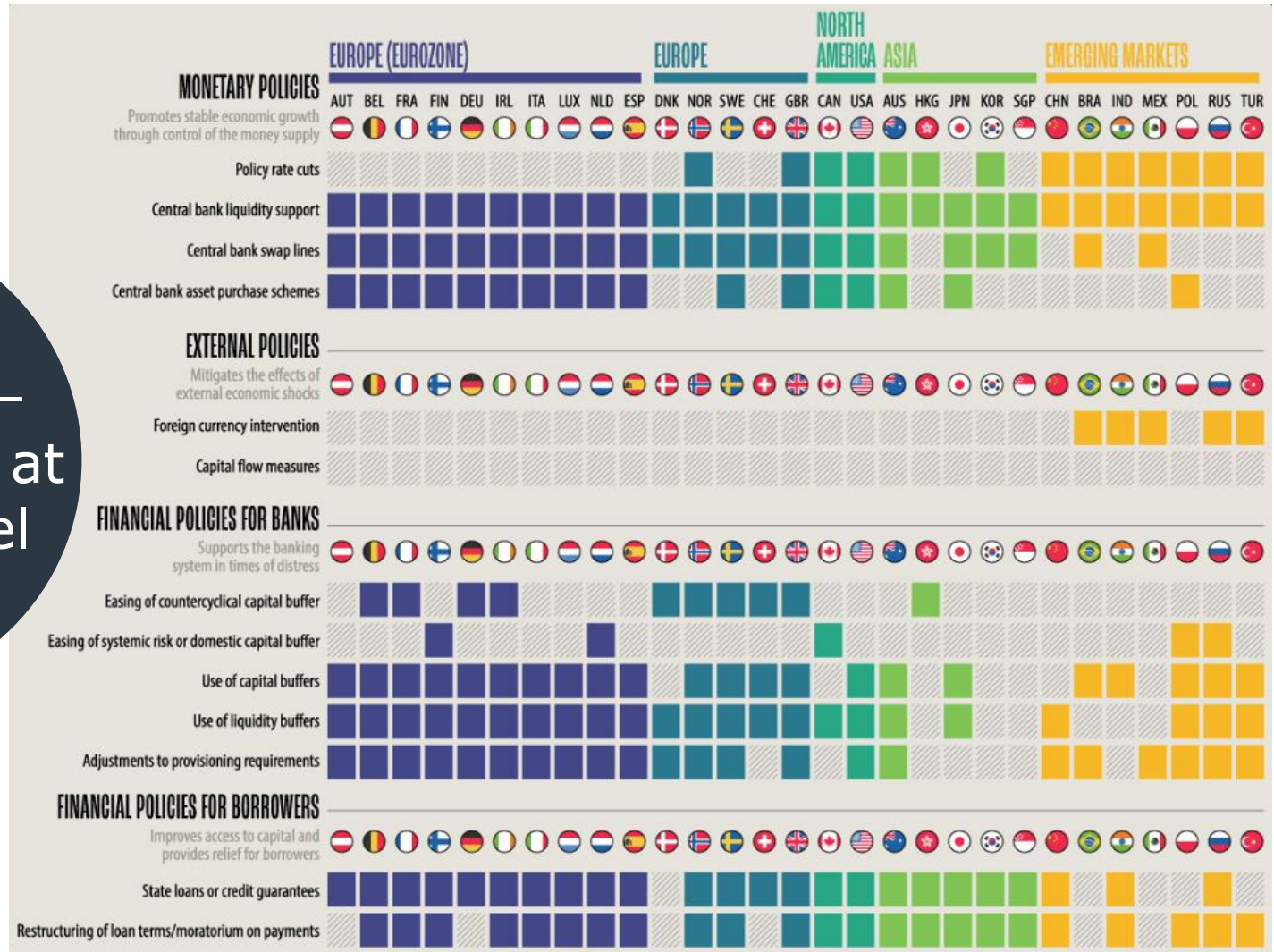
Adjusting the RBA's 2-3% is the  
wrong target

# The policy response has been unprecedented

## The broad-based nature of the policy response in COVID-19

The fiscal response alone has been nearly  
**3x the GFC –**  
**9.9% of GDP at**  
**a global level**  
 compared with 3.7%

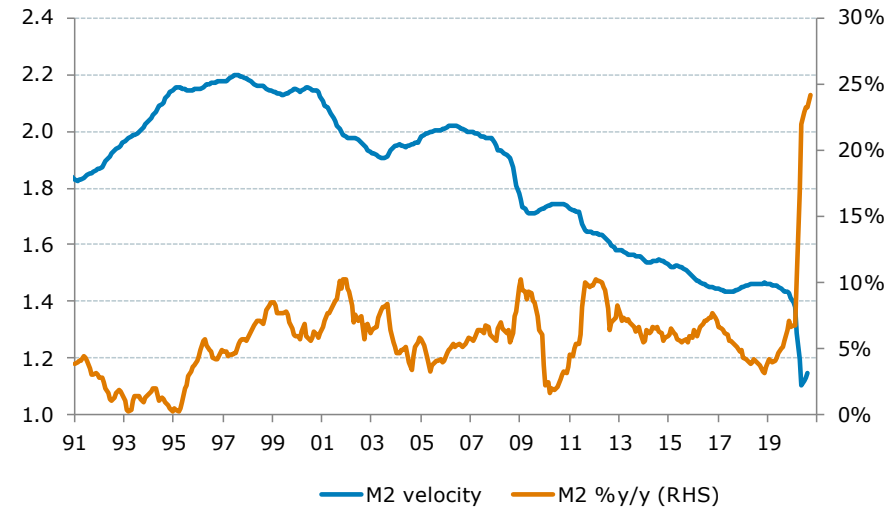
- April 2020  
 IMF Fiscal Monitor



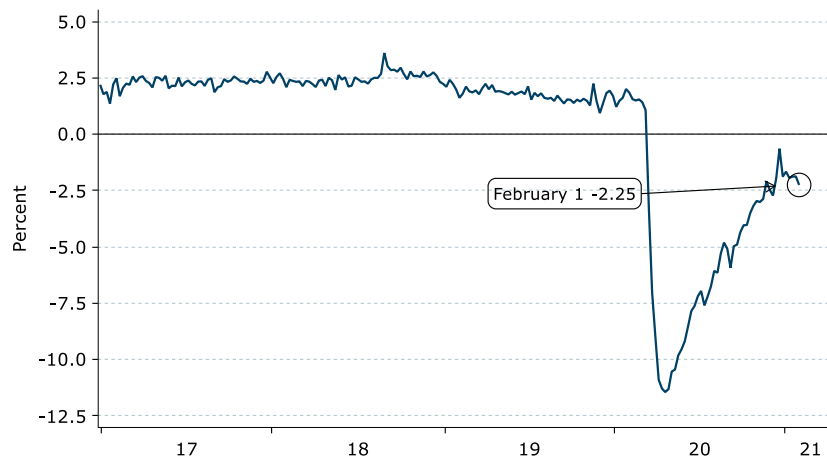
# The pandemic: a health and economic crisis; not a financial crisis

- The policy response prevented a collapse in money supply; in fact money supply globally has risen very sharply.
- Asia has handled the pandemic well.
- Second and subsequent waves in many economies are different:
  - More judicious use of shutdowns
  - Economic policy mechanisms already established
  - Less fear contagion. Lower income earners bear the brunt.

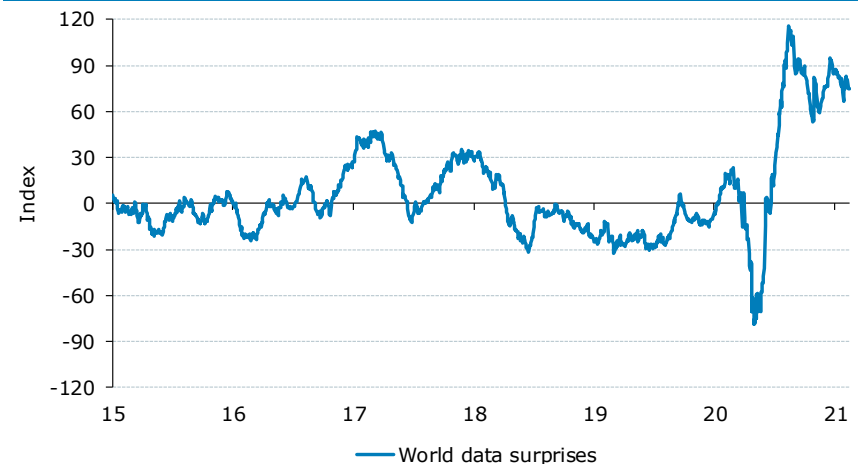
## US money supply



## NY Fed's weekly growth tracker



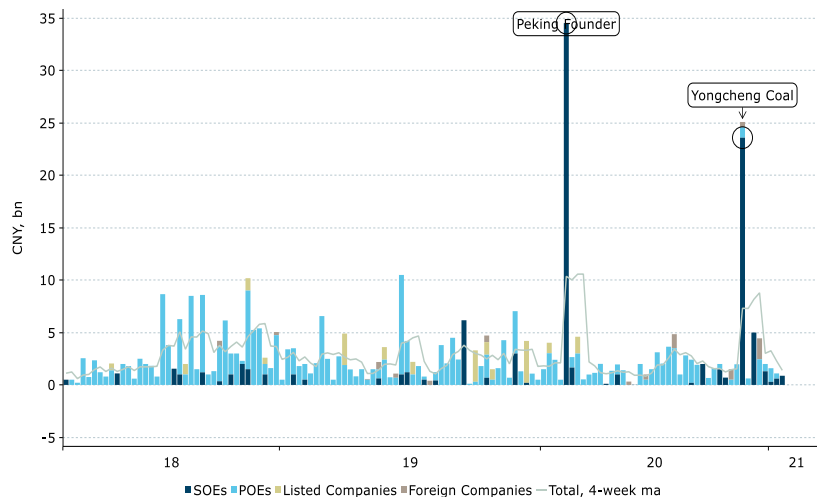
## Data surprises



# The policy response has been crucial: China credit as evidence

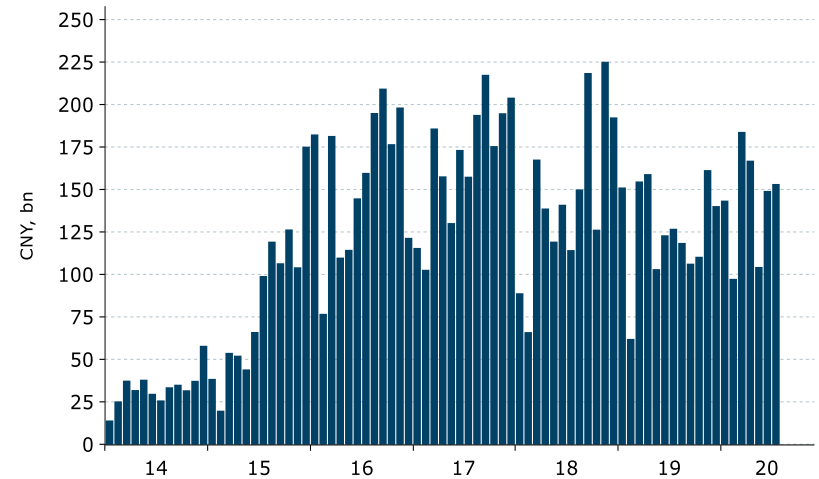
- 90% of outstanding corporate debt in China is issued by SOEs.
- But even within the private sector, defaults have remained extremely low.
- Some of the weakest companies may already have left the market during the 'surge' in defaults in 2018/2019.
- But the policy response has also been robust.
  - From February, firms were permitted to issue new debt to refinance previous bond issues.
  - Monetary policy has been eased.
- Private sector bond issuance has picked up.

## China defaults



Source: , Bloomberg, Macrobond, ANZ Research

## Bond issuance: private sector



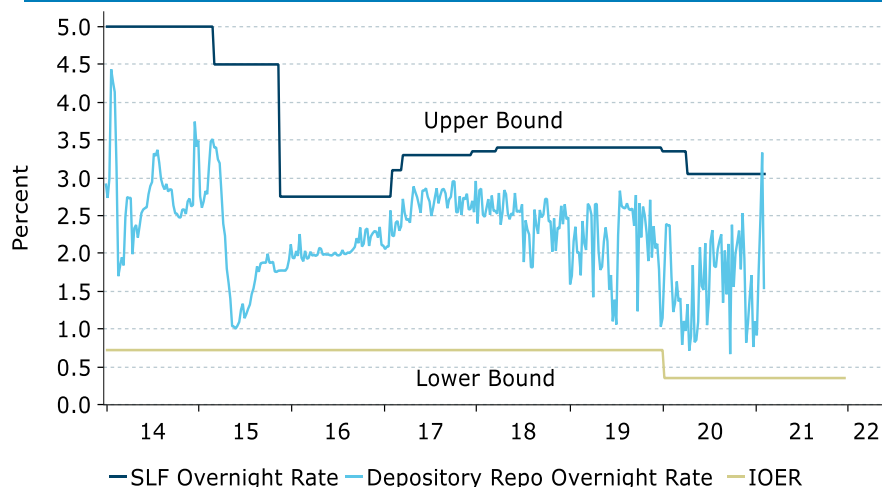
Source: Wind, Macrobond, ANZ Research



# China: A similar, but earlier, recovery

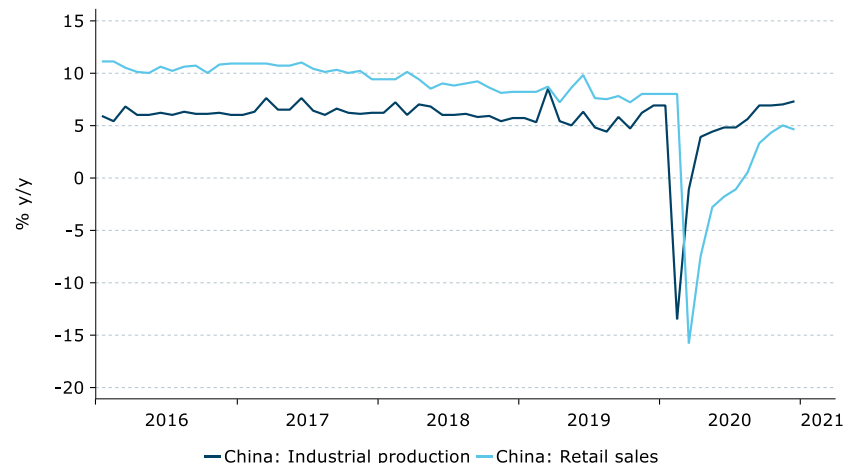
- China's supply side recovery has been robust, and while the rate of increase is slowing, shows few signs of flagging.
- Monetary policy has begun to tighten, but the pace of tightening is likely to be sporadic and cautious. No rate hikes are expected.
  - Fiscal policy remains quite easy. The [IMF](#) projects the augmented general government deficit to have been 18.2% in 2020. Augmented debt is expected to reach 92 percent of GDP.
- Low income households have been hardest hit.
- There were eight SOE defaults in China in 2020. 90% of outstanding corporate debt in China is issued by SOEs. More defaults are likely, but the prospect of a rapid shift to differentiated credit pricing is low. Information access and transparency are the key ingredients.

## Policy shift



Source: ChinaMoney, Bloomberg, Macrobond, ANZ Research

## Supply side out-pacing demand

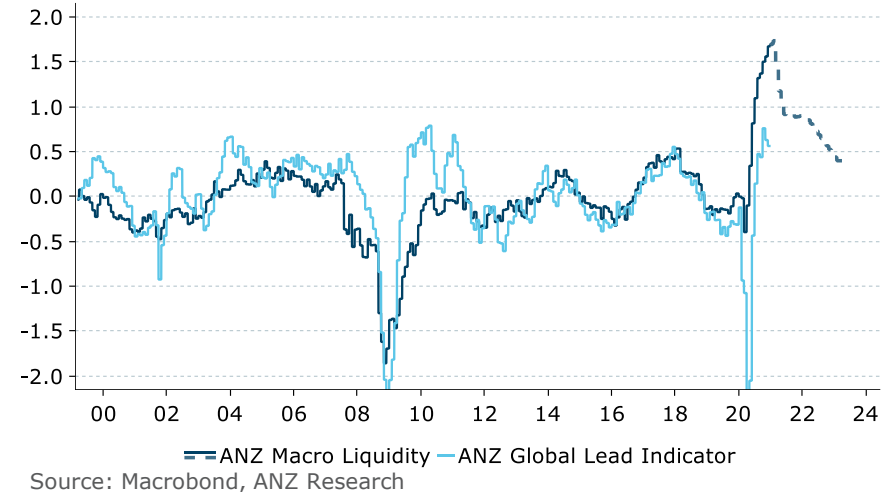


Source: NBS, Bloomberg, Macrobond, ANZ Research

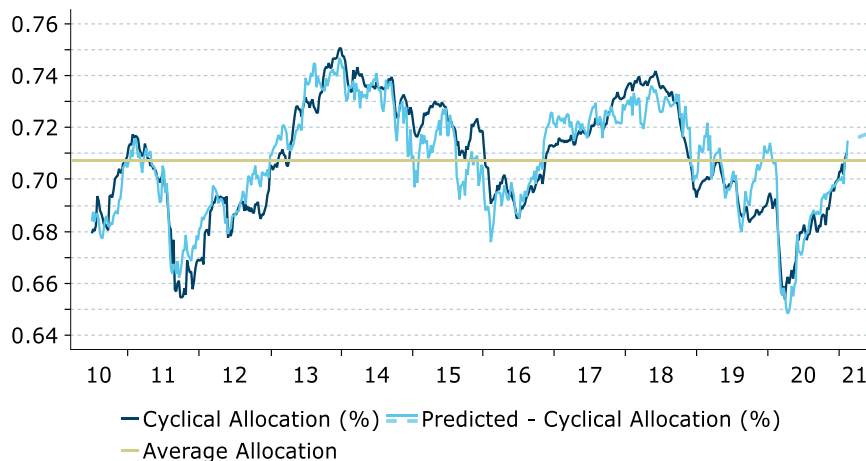
# Macro dynamics remain supportive of asset markets

- The policy response in the US remains focussed on actual inflation employment outcomes rather than forecasts.
- Liquidity will fall, but the index will stabilise close to pre-pandemic peaks. Much of the decline reflects base effects rather than a reduction in liquidity.
- A simple model – growth tempers modestly, inflation expectations stabilize below 2%, and systemic risk declines – suggest ETF allocations should return to 2019 levels.
- In Asia current account balances are improved, capital flows more permanent, and fx is cheap.

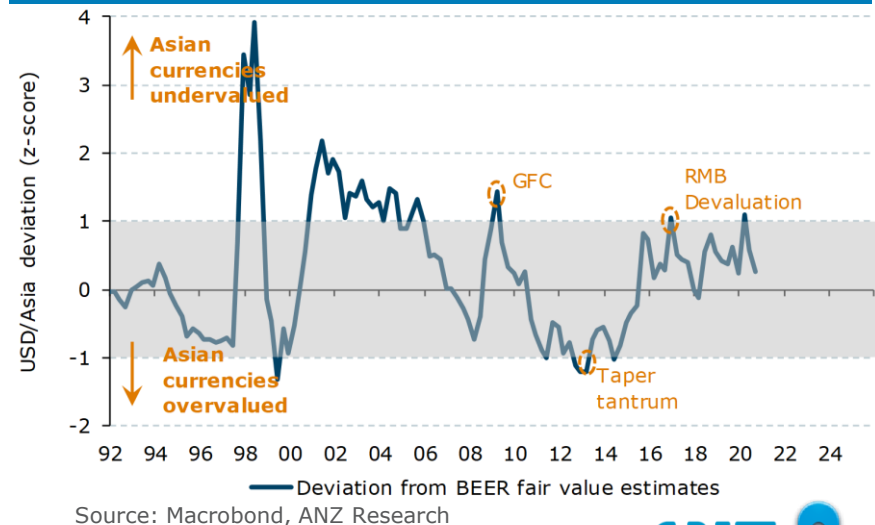
## Liquidity is elevated



## Cyclical ETF allocation further to run



## Asia valuations were a headwind in 2013



# Vaccines: post-COVID normal is within sight

- Vaccines imply we can reach **herd immunity** ( $1-1/R_0$ ).
- Vaccines seem to reduce the risk of **hospitalisation and death** to close to [zero](#).
- The vaccines seem to **reduce transmission**. The Oxford/AstraZeneca vaccine may [reduced the number of positive COVID-19 tests among those vaccinated by 67%](#). [Hospitalisation](#) may be reduced by 85%+.

## Israel: Effectiveness of Pfizer/BioNTech vaccine compared with unvaccinated native population

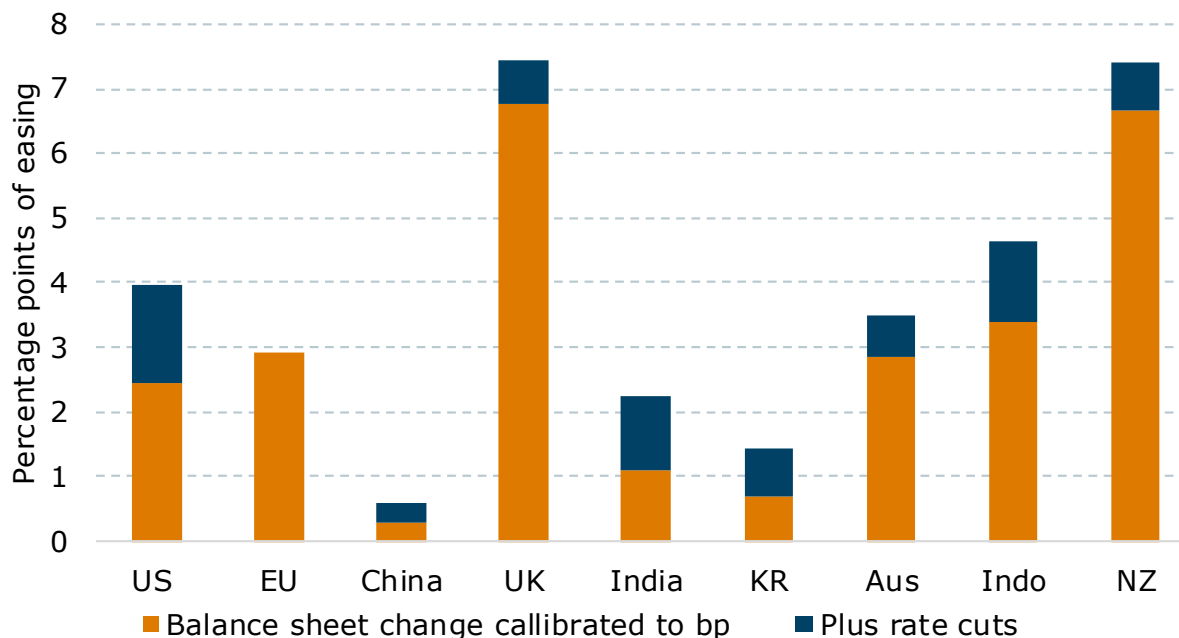
Effectiveness	7 days from dose 2	14 days from dose 2
Preventing Sars-CoV-2 infection	91.9%	95.8%
Preventing disease with fever or respiratory symptoms	96.9%	98.0%
Preventing Covid-19 hospital admissions	95.8%	98.9%
Preventing serious disease from Covid-19	96.4%	99.2%
Preventing Covid-19 death	94.6%	98.9%





Plus an unusually large US fiscal stimulus

## Plenty of easing...for a temporary crisis



Source: Bloomberg, ANZ Research

The Economist

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Feb 6th 2021 edition >

### Fiscal stimulus

## Why Joe Biden's proposed stimulus is too big

America's economy needs targeted relief more than indiscriminate spending

Source: Balance sheet changes are calibrated using the [Gagnon and Sack](#) methodology  
1.5% GDP=25bp



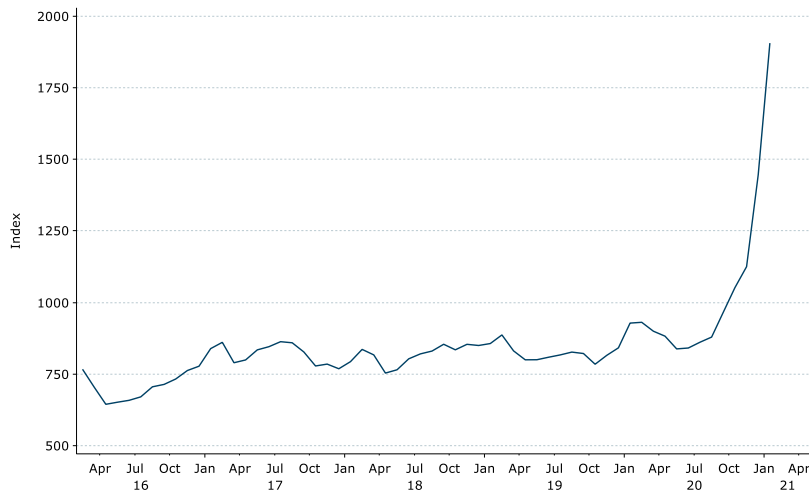
## Changed monetary policy frameworks

- In August 2020 the **US** Federal Reserve announced changes to its policy framework:
  - Average inflation targeting, rather than 2%
  - “maximum employment is a broad-based and inclusive goal”
- In November 2020 the **RBA** summarised its own framework shifts:
  - Actual outcomes, rather than forecasts, will be more important for policy decisions
  - A shift in the relative weight between jobs and inflation

# Global inflation: it's not 2009

- Post 2009 central banks were primarily focused on upside inflation risks. This crisis most are focused on structural disinflation forces and a number have revised frameworks to be deliberately slower in hiking.
- Commodity price weakness has been short-lived and unemployment has declined quickly.
- Geopolitics is reorienting supply chains. China, the world's largest trading nation, seeks ['complete' economic self-reliance](#).
- COVID-19 will encourage just-in-case logistics and inventory management, rather than just-in-time.
- Climate change mitigation is becoming more widespread.
- The GFC permanently impaired the money multiplier. COVID-19 doesn't seem likely to do the same.
- NZ firms are reporting 'finding skilled labour' as their biggest problem.

## China composite container freight rates



## Key structural drivers of inflation

Red = downward pressure, Green = upward pressure

### Pre-COVID

Debt  
Demographics  
Technology  
Globalisation  
Fiscal policy  
Central bank policy  
Money multiplier

### Since COVID

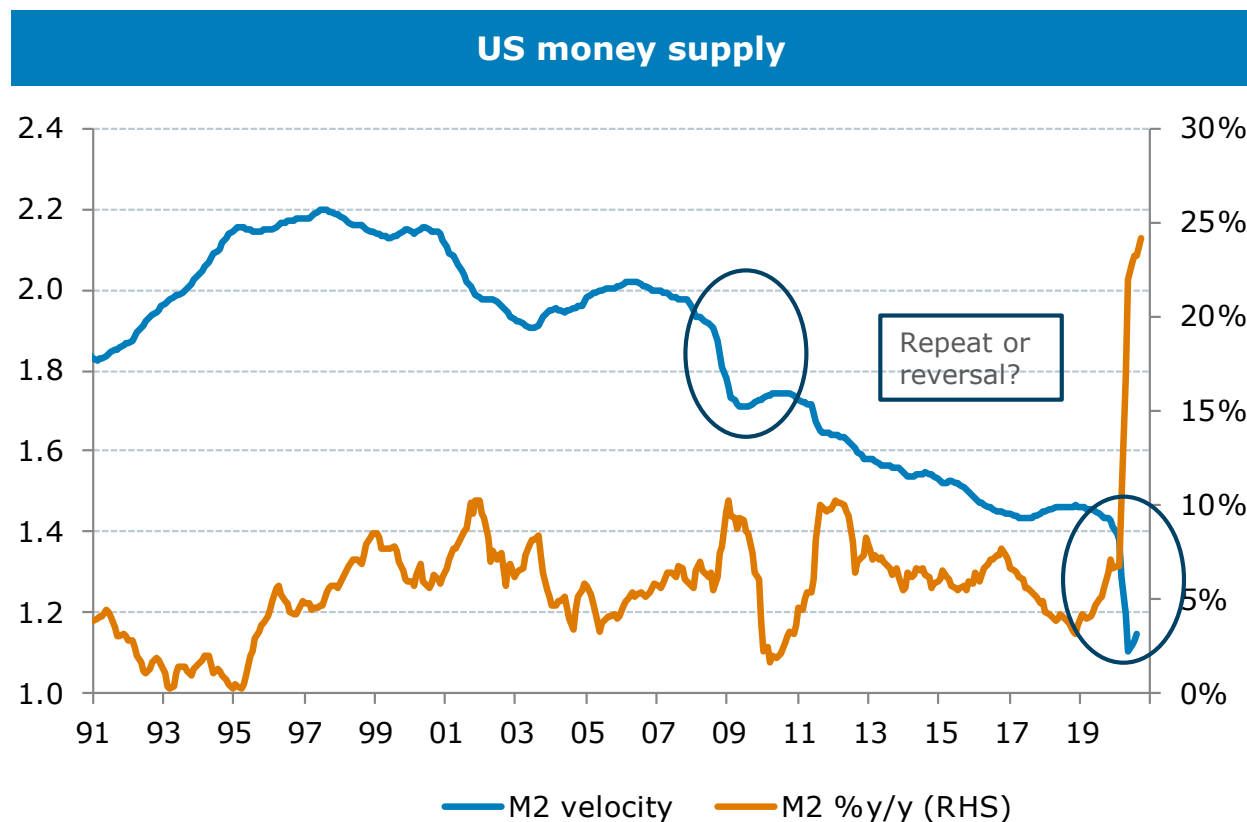
Debt  
Demographics  
Technology  
Supply chain re-orientation  
Fiscal policy  
Central bank policy  
Money multiplier (short term)

Policy in the US,  
and elsewhere,  
looks far too easy  
for a crisis which is  
in large part  
temporary



2021's taper  
tantrum

## What then happens to policy settings?



# No consumer hangover at current interest rates

Household interest payments as a share of disposable income

## US



Source: Fed, Macrobond, ANZ Research

## China



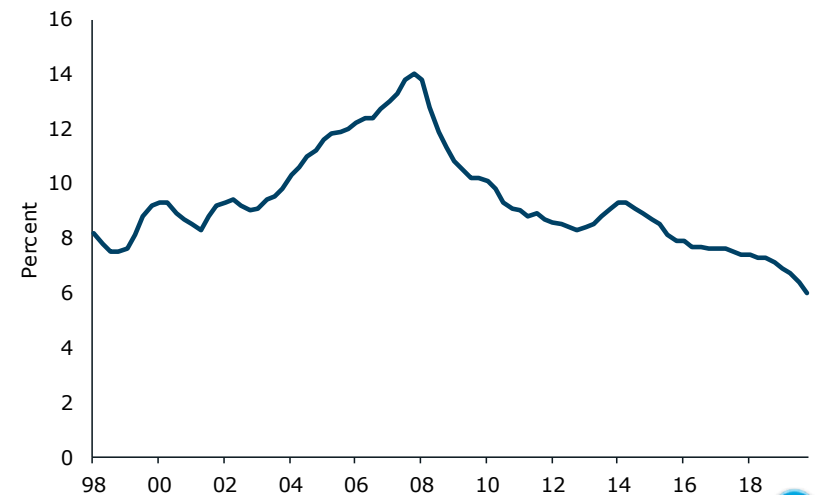
Source: PBoC, NBS, Macrobond, ANZ Research

## Australia



Source: Macrobond, ANZ Research

## NZ



Geopolitics

From monetary  
to fiscal policy


# Post COVID-19

Movement

Climate

Inequality





“Humankind has managed to do the impossible and rein in famine, plague and war. Today, more people die from obesity than from starvation; more people die from old age than from infectious diseases; and more people commit suicide than are killed in war.”

Homo Deus

# GDP growth won't solve the equity problem

The widening in inequality in 2020 has been eye-watering. In India [less than a third of schoolchildren](#) are accessing online education. The world's billionaires saw their [wealth increase by a quarter](#) in 2020. [Almost half of Singapore's migrant workers](#), or 152,000 people, were infected with the coronavirus in 2020. The World Bank estimates 100m people may have been pushed into [extreme poverty](#) in 2020.

GDP growth helps jobs, but beyond that:

- Why will the distribution of income gains improve from the pre-COVID-19 experience? Digital adoption, robotics, improved white collar mobility all suggest gains may well remain concentrated.
- Can reform even materially raise GDP growth in advanced economies? The [ECB](#) suggests the benefits of reform “tended to materialise earlier, but overall to be more limited, in advanced economies than in emerging markets”.
- Inequality raises financial vulnerabilities as those on [lower incomes tend to borrow more](#). Rapid growth in the income share of the top 10% of earners and prolonged low labour-productivity growth are in fact robust predictors of [financial crises](#).
- Given those on lower incomes tend to spend more, where the growth ends up also matters for, well, the growth.
- [Trust in science](#) declines as inequality rises.

[Less-standard policies require consideration](#), including those focussed on reducing the structural sources of high inequality and **jointly** considering the distribution of the pie and it's size.

“Throughout recorded history the most powerful levelling [in inequality] inevitably resulted from the most powerful shocks...mass mobilisation warfare, transformative revolution, state failure, and lethal pandemics.”

[The Great Leveler: violence and the history of inequality](#)

# Climate change: the end of the debate, now for the details

Climate mitigation is prone to tipping points because of the huge concentration in carbon emissions. The [G20 economies](#) account for 80% of global emissions, [20 companies](#) account for nearly half, and the [richest 1%](#) account for 15% of global carbon emissions.

- Countries equivalent to three-quarters of global GDP now have a firm zero carbon commitment.
- All but three of the G20 economies (Argentina, Turkey and South Africa) are represented on the [Network of Central Banks and Supervisors for Greening the Financial System](#).

The effects of mitigation are likely to fall disproportionately:

- The UN Development Program re-cut its GDP per-capita economic rankings with a new “experimental [Planetary pressures-adjustment Human Development Index](#)”. Wealthier countries tend to exert more pressure on the planet, and as a result suffer the sharpest drop in rankings. Luxembourg, Singapore and Australia see the sharpest ranking falls.
- The [Grantham Research Institute](#) estimates different economies’ reliance on land-based (ie agricultural) natural capital. Of the 20 countries studied, Brazil, Indonesia, Argentina, India and Australia show as the most exposed.

The economics of mitigation have become much more advantageous.

- Damage: Many of the [economic estimates of pandemics](#), including from the US Congressional Budget Office and EU Commission, have proven to be wildly optimistic. [One academic study](#) suggested 15 million deaths might cost 2% of world GDP. In reality worldwide deaths are less than 2 million to this point and the economic cost for the US may have been [75% of GDP](#).
- The continued fall in the cost of alternative energy has reduced transition costs. For instance, more than half of the renewable capacity added in 2019 achieved [lower power costs](#) than the cheapest new coal plants.
- More broadly, the costs of [mitigation keep falling](#). One estimate suggests global net zero by 2050 can be achieved at a [cost of below 0.5%](#) of global GDP. The [UK](#) has produced similar estimates (first report of its kind from a finance ministry).
- Neither can we continue to assume standards of living in the future will be materially improved from the past. [Deloitte Access Economics](#) suggests unmitigated climate change will shrink Australia’s GDP by 6% in 2070



# Climate change: compensation vexation

This makes more urgent the vexing issue of compensation for those worse off.

- There is a compensation issue whether mitigation is pursued or not.
- The economics of mitigation have become much more advantageous.
- Recent mitigation actions may not have even cost economic growth.
  - The [IMF](#) suggests “climate change mitigation policies have made important contributions...toward low carbon activities, broadly without harming overall activity”.
  - There are also strong arguments that reducing emissions intensity at a [company level](#) can generate bottom line benefits.

The experience with trade liberalisation sends an unmistakable message that **support for the agenda will only be sustained if the losses do not fall disproportionately.**

- With trade liberalisation those disadvantaged were often treated as having failed; they failed to adjust. We didn't treat it as a question of compensation, but of merit. As [Michael J Sandel](#) has put it “those who land on top come to believe that they deserve their success. And, if opportunities are truly equal, it means that those who are left behind deserve their fate as well”.
- The market economy allocated resources efficiently when that allocation is determined by industriousness and entrepreneurship. Luck doesn't, or shouldn't, have a role to play. By judging the societies challenged by climate change as undeserving, we are telling them they are unlucky, and they need to adjust. This risks repeating of the mistakes of trade liberalisation, it further undermining support for the mitigation actions themselves.

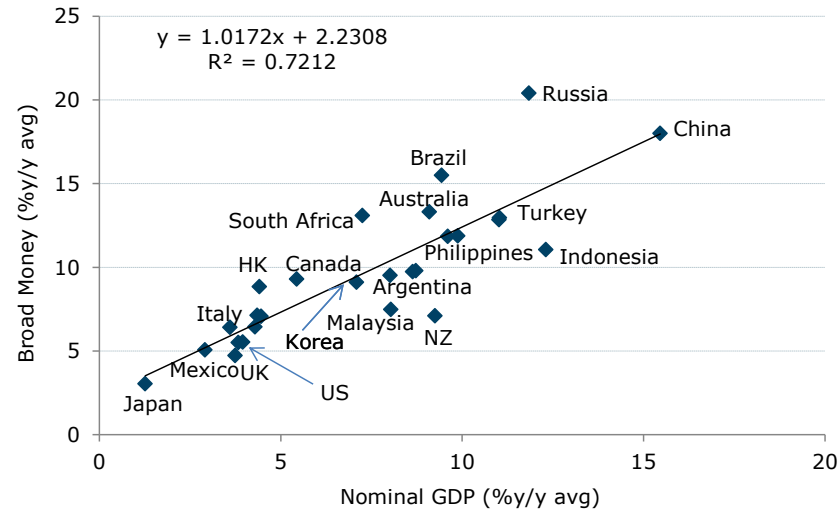
# Climate: follow the money



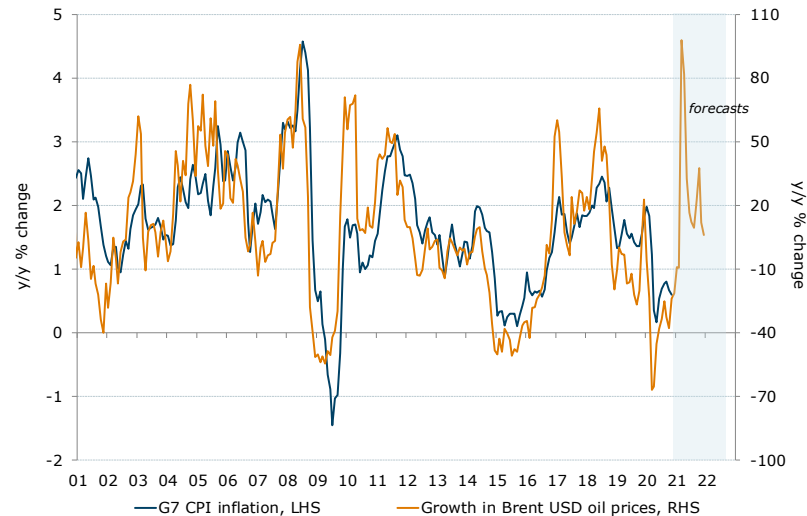
“Is the effect of monetary policy on the productive capacity of the economy long lived? Yes, in fact we find such impacts are significant and last for over a decade.”

FRB of San Fran,  
Working Paper 2020-01

## Broad money vs nominal GDP growth 2002-2016



## What happens to this reliable relationship?



# A fiscal-policy led world is radically different

This shift is not just because conventional monetary ammunition is exhausted in many countries, but also because the **essential tenets** of conventional monetary policy are being challenged.

- A fiscal policy dominated world implies **easier policy overall** because the policy targets and accountability are more ambiguous.

Monetary policy has increasingly come to work through the financial sector and asset prices first.

- Fiscal policy works more directly, and is hence **more powerful**.

Fiscal repair, even if it occurs, will take much longer as there is little monetary space to buffer the economy.

- It doesn't seem likely any significant economies will shift entirely to an MMT-style framework, but heightened awareness of MMT does seem to be contributing to a more permissive fiscal environment.

Fiscal policy faces a huge **operational challenges** as a consequence.

- Annual budgets and existing analytical frameworks are not well placed, and planning timelines are often too long.
- The [Sahm rule](#), for instance, proposes establishing a mechanism to automatically distribute stimulus payments to individuals when the unemployment rate rises rapidly.

**Inequality** will naturally garner more attention with the shift in policy leadership.

- Conventional monetary policy uses one instrument as its primary mechanism; distributional choices are not substantially involved.
- But fiscal policy has no blunt tool. The budget balance is the outcome of a whole range of individual decisions.



# G-Zero and the economy

G-Zero reflects not just a realignment of economic size among the large economies, but also domestic developments within many countries:

- slower rates of economic growth,
- inequalities in the distribution of wealth and income,
- social media -- 6 degrees of separation has become 3.57
- And now less physical interaction; which tends to weaken trust between differing cultures

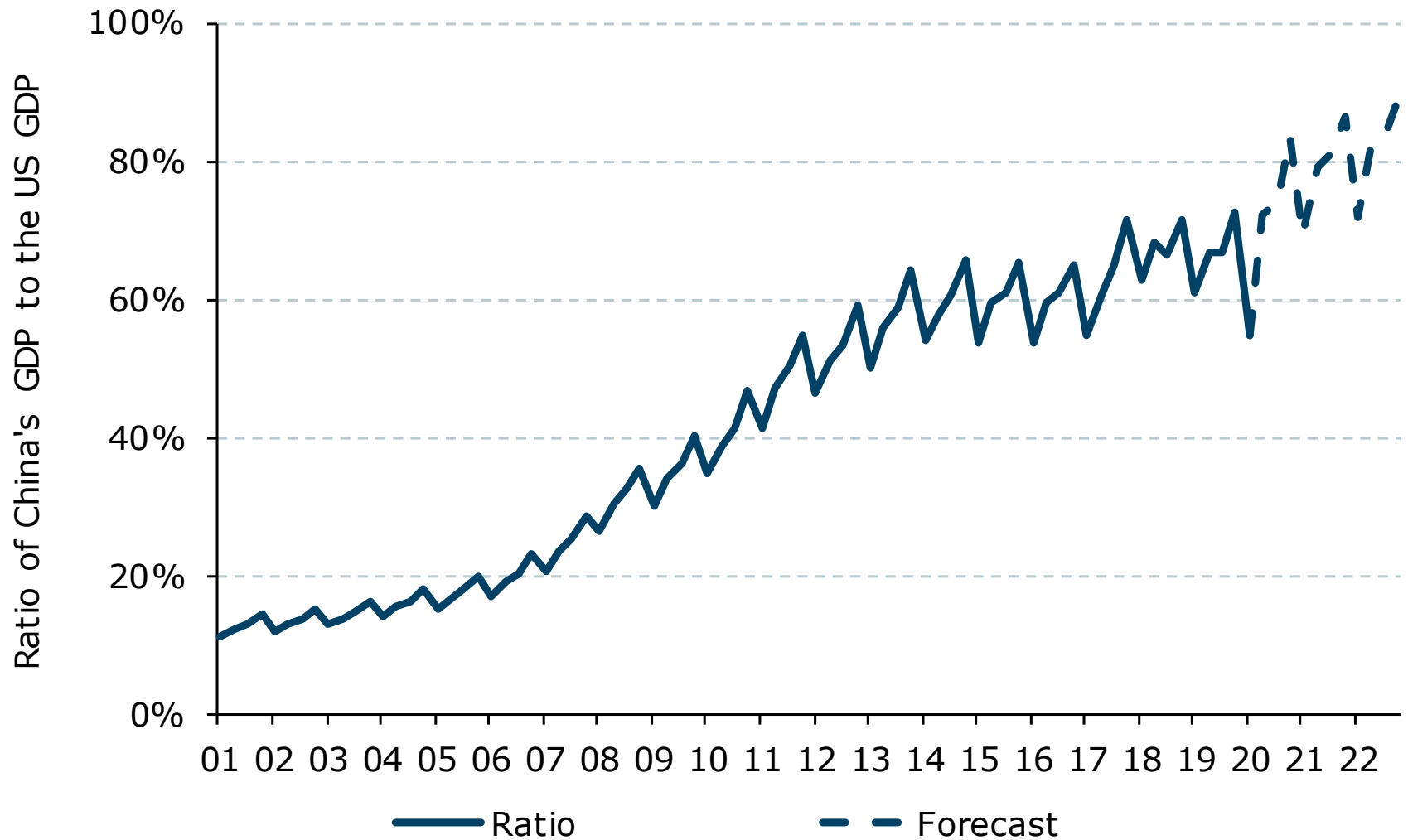
The social contract has even been further eroded through this COVID-19 crisis.

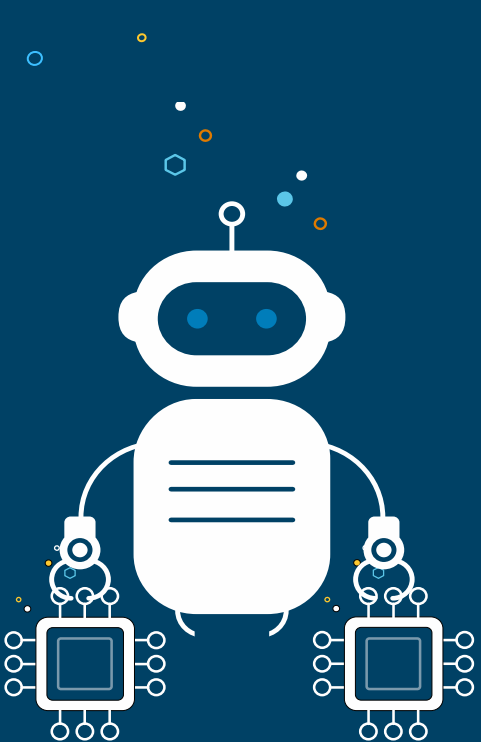
- The losses from COVID-19 have fallen disproportionately on the [young](#), [women](#), [ethnic minorities](#) and those living in areas with [higher air pollution](#).
- In fact pandemics have a [tendency to exacerbate](#) pre-existing inequalities.

G-Zero is not just reflected in relations between the big powers, but in how other countries see their future.

- In 2019, Germans were twice as likely to prefer a close partnership with the US (50%) as China (24%).
- That gap has now evaporated (US 37%, China 36%).
- More importantly, asked for their most important foreign policy partner, Germans are far more likely to pick France (44%) than the US (10%) or China (6%).

## China GDP as % of US GDP

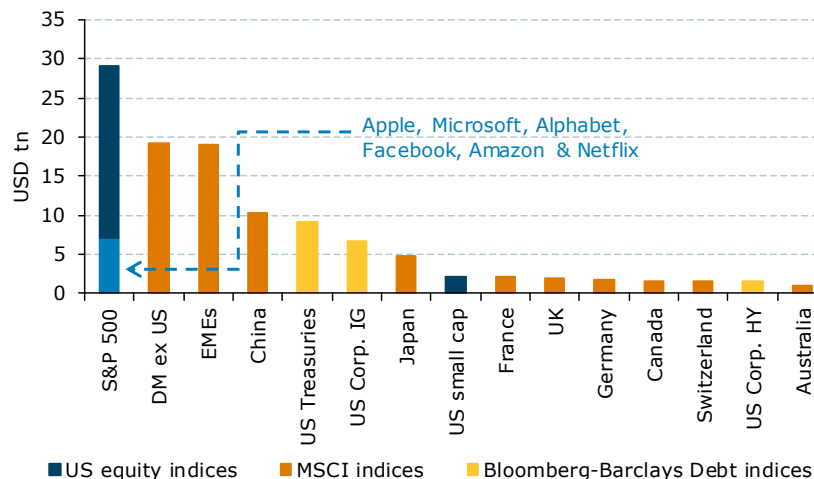




Global tech sector market cap now exceeds that of the global energy sector

## Tech: some trends strengthen through a crisis

### Market value outstanding by asset benchmark, USDtrn



### Business investment is no longer steel & cement

#### Top four providers collectively grow 40% in Q3

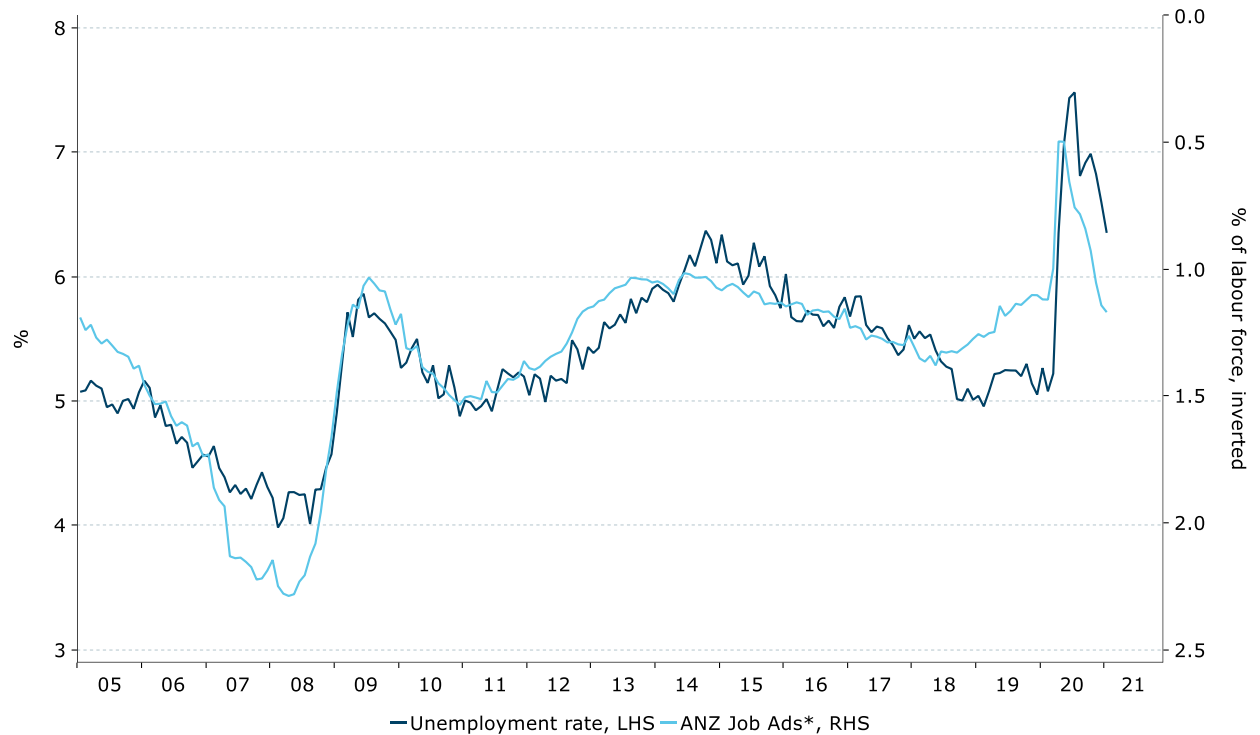


Source: Canalis estimates, October 2020

canalis

# ANZ Job Ads have recovered all the COVID-19 plunge

## ANZ Job Ads and unemployment



\*Last observation uses previous month's labour force as proxy.  
Source: ABS, SEEK, Dept of Education Skills and Employment, Macrobond, ANZ Research

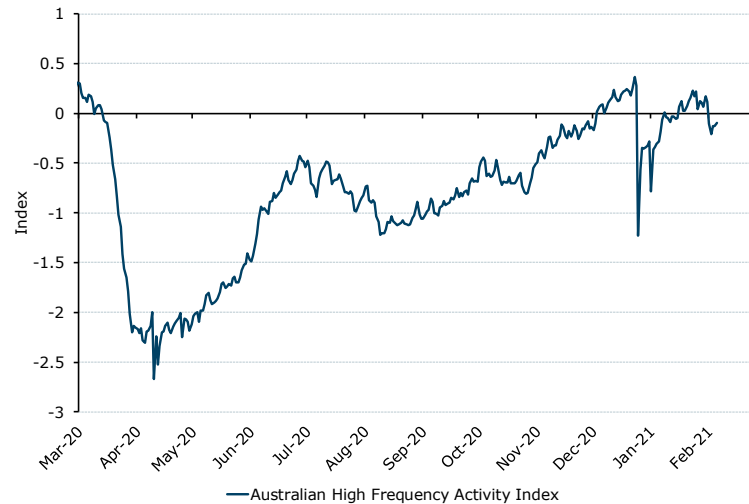


Note that the shift from cash to card inflates y/y growth

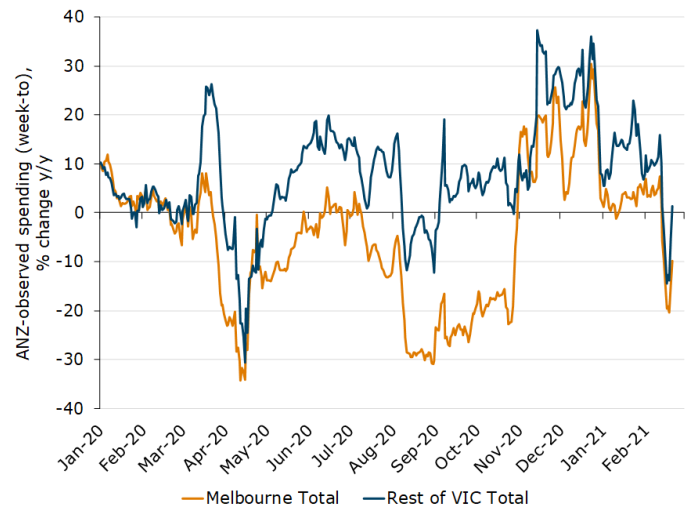
All ANZ card data have been de-identified, de-sensitised and aggregated before being analysed. ANZ spending data were not scaled up to represent total spending, and only include spending by ANZ cardholders and transactions for merchants that use ANZ point-of-sale terminals. The market share of ANZ cardholders and ANZ point of sales terminals differs between categories and over time. The changes in spending between December and February are still a good proxy of consumer spending, as changes within these months are not likely to be very affected by market share.

## ANZ alternative data

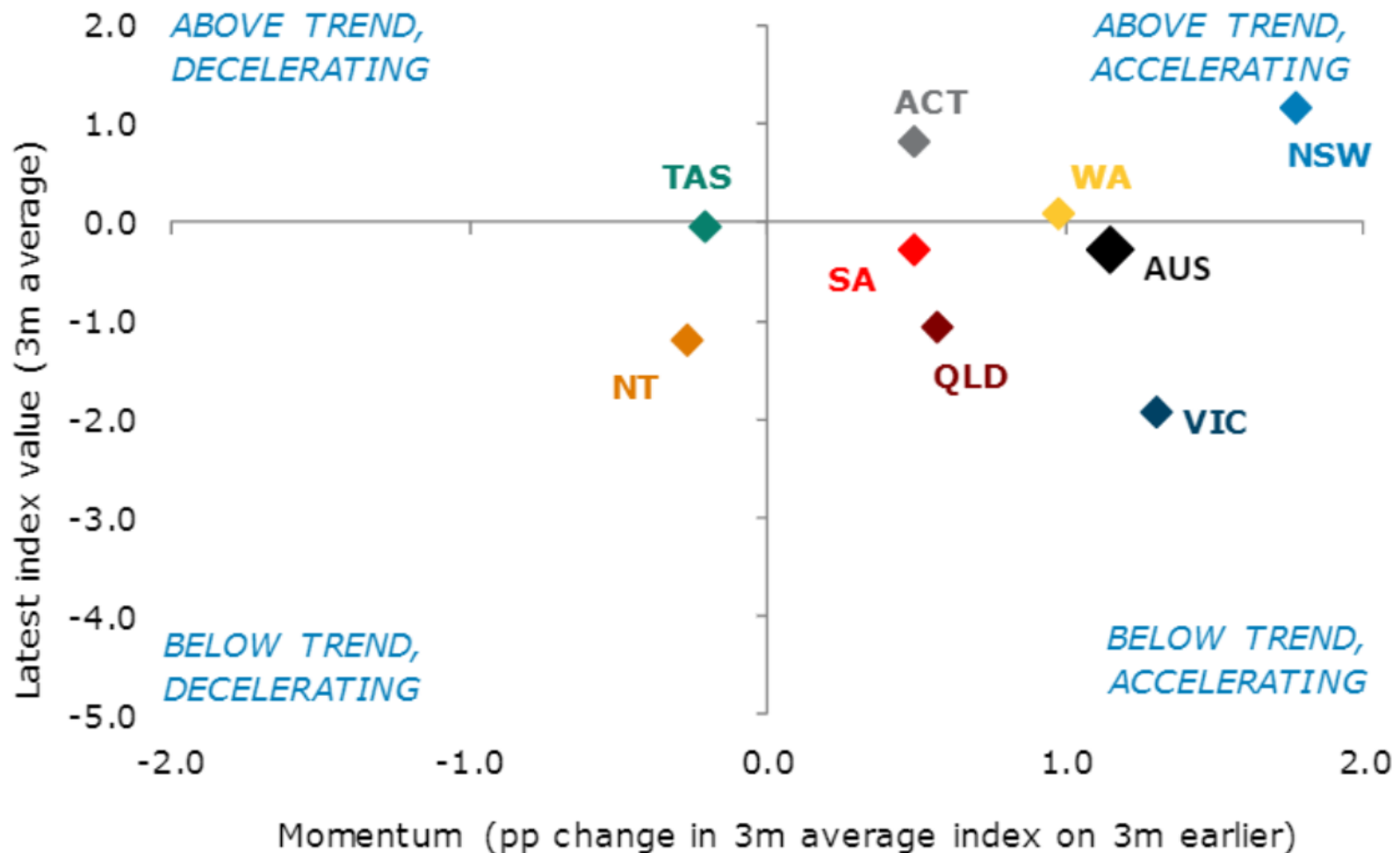
### ANZ high frequency activity index



### ANZ-observed spending



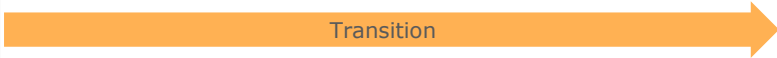
# ANZ Stateometer





# ANZ: Capital framework

## Current regulatory proposals and recent revised implementation dates<sup>1</sup>

	2019	H1 2020	H2 2020	H1 2021	H2 2021	Original Implementation Date	Revised Implementation Date
<b>RBNZ Capital Framework</b>	Finalise					2027	2028 <sup>2</sup>
<b>Leverage ratio</b>		Finalise				2022	2023
<b>Standardised Approach to Credit Risk</b>		Consultation	Consultation / Finalise			2022	2023
<b>Internal Ratings-based Approach to Credit Risk</b>		Consultation	Consultation / Finalise			2022	2023
<b>Operational Risk</b>		Finalise				2021	2023
<b>Fundamental Review of the Trading Book</b>		Consultation				2023	2024
<b>Interest Rate Risk in the Banking Book</b>		Consultation	Consultation / Finalise			2022	2023
<b>Loss Absorbing Capacity (LAC)<sup>3</sup></b>						2024	-
<b>Capital Treatment for Investments in Subsidiaries (Level 1)</b>		Consultation	Consultation / Finalise			2021	Expected 2022
<b>Associations with Related Entities</b>	Finalise	Transition 				2021	2022

<sup>1</sup> Timeline is based on APRA's 2020 Policy and Supervision Priorities (published January 2020) and revised following APRA's deferral of capital reform implementation in response to COVID-19 circumstances

<sup>2</sup> 7 year transition period from 1 July 2021 (subject to change)

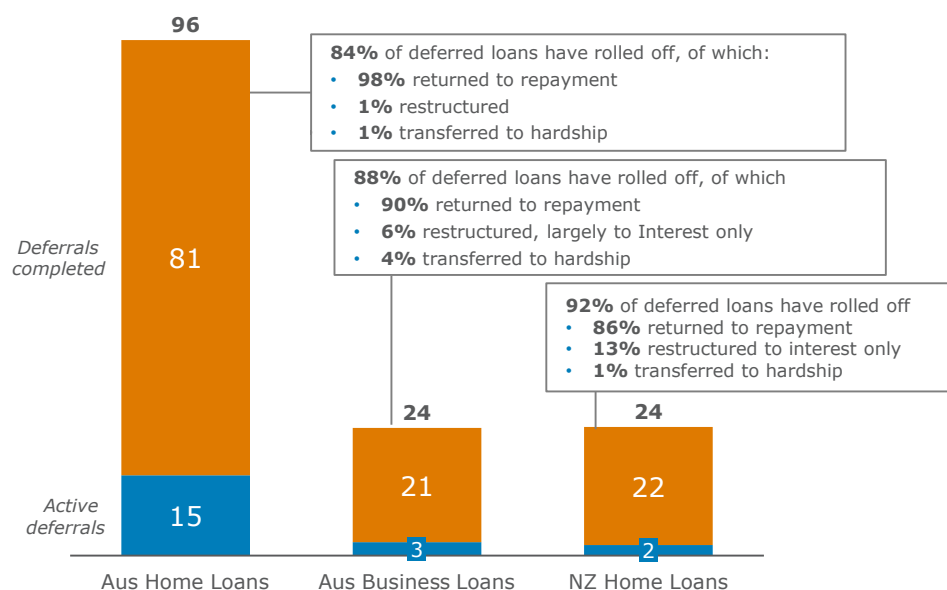
<sup>3</sup> Only in relation to the 3% of RWA increase in Total Capital requirements announced in July 2019

# ANZ COVID-19 loan deferrals

## Australia & NZ home loan and Australia business loan deferrals (JAN-21)

### Total loan deferrals<sup>1</sup>

Account numbers (000s)



Australian deferrals <sup>1</sup>	Housing Loans		Business Loans	
	# Accounts	FUM	# Accounts	EAD
Total loan deferrals provided	96k	\$33b	23.8k	\$10b
Active deferrals	15k	\$6b	2.5k	\$1b
Loans completed deferral	81k	\$27b	21.3k	\$9b
- Returned to repayment	98%	97%	90%	90%
- Restructured	1%	2%	6%	7%
- Transferred to hardship	1%	1%	4%	3%

<sup>1</sup>'Home Loans – Australia', 'Home Loans – New Zealand' and 'Business Loans – Australia' Active Deferral numbers exclude accounts due to expire / exit where customers have already confirmed they will recommence repayment

# Australia: home loans




Portfolio overview (unless otherwise stated metrics are based on balances)

























	Portfolio <sup>1</sup>			Flow <sup>2</sup>			Portfolio <sup>1</sup>		
	FY18	FY19	FY20	FY19	FY20		FY18	FY19	FY20
Number of Home Loan accounts <sup>1</sup>	1,011k	983k	1,008k	119k <sup>3</sup>	170k <sup>3</sup>	Average LVR at Origination <sup>7,8,9</sup>	67%	67%	69%
Total FUM <sup>1</sup>	\$272b	\$265b	\$275b	\$40b	\$61b	Average Dynamic LVR (excl. offset) <sup>8,9,10</sup>	55%	57%	56%
Average Loan Size <sup>4</sup>	\$269k	\$270k	\$273k	\$378k	\$391k	Average Dynamic LVR (incl. offset) <sup>8,9,10</sup>	50%	52%	50%
% Owner Occupied <sup>5</sup>	65%	67%	68%	73%	70%	Market Share (MBS publication) <sup>11</sup>	15.5%	n/a	n/a
% Investor <sup>5</sup>	32%	30%	30%	26%	29%	Market share (MADIS publication) <sup>11</sup>	n/a	14.3%	14.4%
% Equity Line of Credit	3%	3%	2%	1%	1%	% Ahead of Repayments <sup>12</sup>	72%	76%	72%
% Paying Variable Rate Loan <sup>6</sup>	84%	84%	78%	78%	70%	Offset Balances <sup>13</sup>	\$28b	\$27b	\$33b
% Paying Fixed Rate Loan <sup>6</sup>	16%	16%	22%	22%	30%	% First Home Buyer	7%	8%	8%
% Paying Interest Only	22%	15%	11%	11%	14%	% Low Doc <sup>14</sup>	4%	4%	3%
% Broker originated	52%	52%	53%	53%	57%	Loss Rate <sup>15</sup>	0.02%	0.04%	0.03%
						% of Australia Geography Lending <sup>16,17</sup>	63%	61%	62%
						% of Group Lending <sup>16</sup>	45%	43%	44%

1. Home Loans portfolio (includes Non Performing Loans, excludes Offset balances) 2. YTD unless noted 3. New accounts includes increases to existing accounts and split loans (fixed and variable components of the same loan) 4. Average loan size for Flow excludes increases to existing accounts 5. The current classification of Investor vs Owner Occupier is based on ANZ's product category, determined at origination as advised by the customer and the ongoing precision relies primarily on the customer's obligation to advise ANZ of any change in circumstances. 6. Excludes Equity Manager Accounts 7. Originated in the respective year 8. Unweighted based on # accounts 9. Includes capitalised LMI premiums 10. Valuations updated to Aug-20 where available. Includes Non Performing Loans and excludes accounts with a security guarantee and unknown DLVR 11. APRA Monthly ADI Statistics to Aug-20 – Note APRA changed the underlying market share definition in Jul-19 12. % of Owner Occupied and Investment Loans that have any amount ahead of repayments. Based on excess repayments based on available Redraw and Offset. Excludes Equity Manager Accounts. Includes Non Performing Loans 13. Balances of Offset accounts connected to existing Instalment Loans 14. Low Doc is comprised of less than or equal to 60% LVR mortgages primarily for self-employed without scheduled PAYG income. However, it also has ~0.1% of less than or equal to 80% LVR mortgages, primarily booked pre-2008 15. Annualised write-off net of recoveries 16. Based on Gross Loans and Advances 17. Australia Geography includes Australia Division, Wealth Australia and Institutional Australia

# Snapshot of FY20 ESG target performance

Our ESG targets support 11 of the 17 United Nations Sustainable Development Goals. This year we have achieved or made good progress against 79%\* of our targets, and not achieved 21%\*.

 Achieved
  In progress / partially achieved
  Not achieved

ESG target	Progress	Outcome	Relevant SDGs
<b>Fair and responsible banking</b>			
Customer remediation #customer accounts <sup>1</sup> remediated in the last 12 months	~1.8m customer accounts remediated in the last 12 months		
Improve reputation & community trust, Reptrack® community sentiment indicator score (ranking <sup>2</sup> )	Increased to 62.9 (from 58.8 at 30 Sept '19); ranked 2 <sup>nd</sup>		
<b>Environmental sustainability</b>			
Fund and facilitate at least \$50b by 2025 in sustainable solutions <sup>3</sup>	Funded & facilitated A\$9.08 billion in sustainable solutions since Oct 2019		   
Reduce scope 1 & 2 emissions by 24% by 2025 & 35% by 2030 <sup>4</sup>	Scope 1 & 2 emissions decreased by 36%, tracking ahead of required reduction to meet 2025 & 2030 targets		  
<b>Financial wellbeing</b>			
Help enable social & economic participation of 1 million people by 2020 <sup>5</sup>	Reached >1.07m people		  
Increasing women in leadership to 33.1% by 2019 (34.1% by 2020)	Women in Leadership is 33.4% (from 32.5% at Sept 2019)		 
Recruiting >1,000 people from under-represented groups by 2020	Recruited 919 people from under-represented groups since Oct 2016		
<b>Housing</b>			
Fund & facilitate \$1b of investment by 2023 to deliver ~3,200 more affordable, secure & sustainable homes to buy & rent (Australia)	Funded & facilitated A\$1.02b in investment since Oct 2018		  
NZ\$100m of interest free loans to insulate homes for ANZ NZ mortgage holders # \$value of loans provided	Provided >NZ\$12.6 million in interest-free loans since Oct 2018		

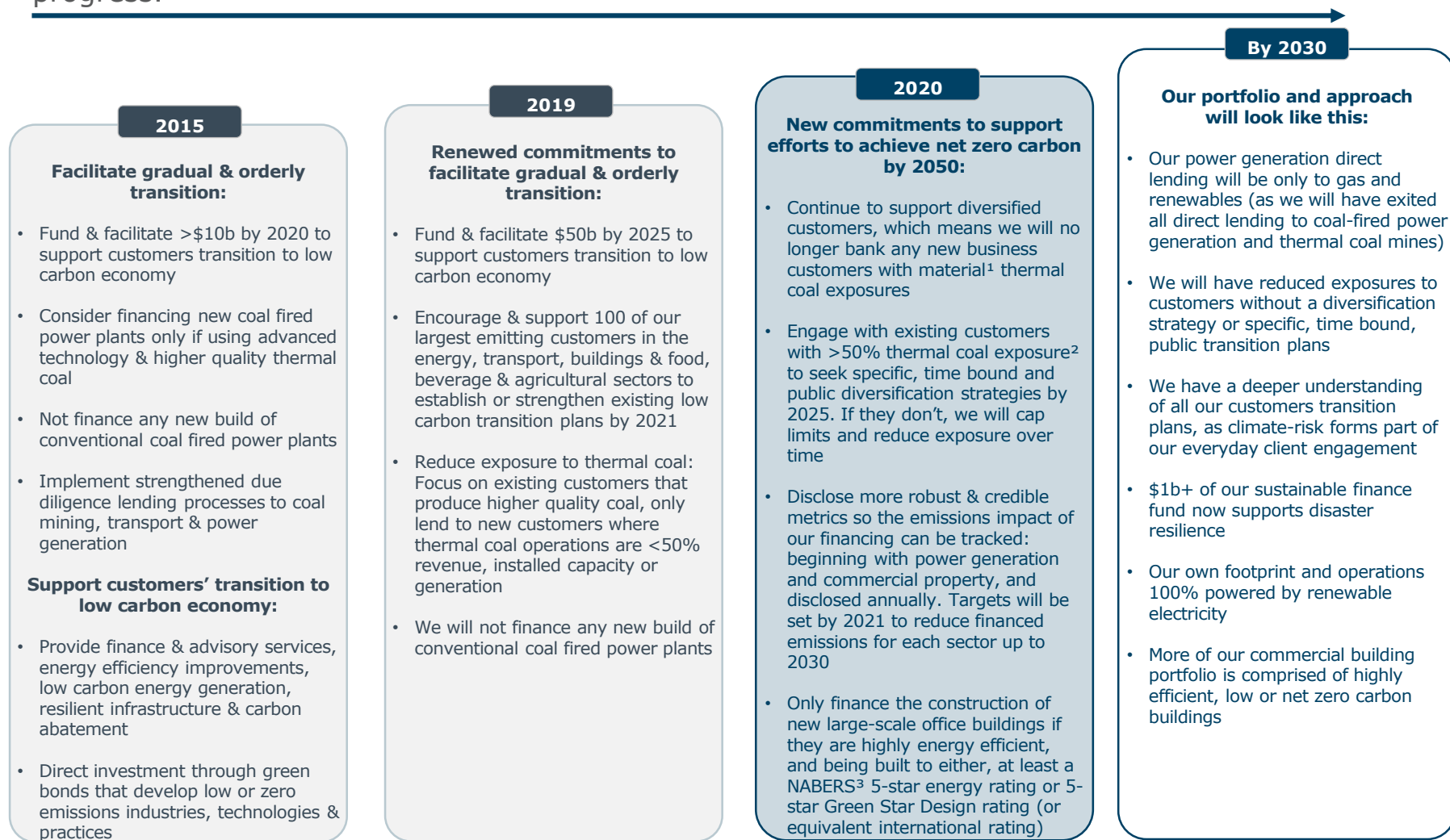
Note: This information has not been independently assured. KPMG will provide assurance over ANZ's full year performance against targets in its annual ESG reporting to be released 9 November 2020. Results as at 30 September 2020.

1. Australian Retail and Commercial customers; 2. RepTrak® community sentiment indicator ranking based on the four major Australian banks; 3. Performance includes initiatives that help improve environmental sustainability, increase access to affordable housing and promote financial wellbeing. This target is new in 2020 and replaces the \$15bn sustainable solutions target that we exceeded one year ahead of schedule in 2019 (\$19.1bn); 4. Reducing the direct impacts of our business activities on the environment; 5. Through our initiatives to support financial wellbeing including financial inclusion, employment and community programs, and targeted banking products and services for small businesses and retail customers

Source: ANZ 2020 Full Year Results

# ANZ's pathway to 2030

Our response to supporting the transition has evolved over time, and to date, we've made strong progress.



1. More than 10% revenue, installed capacity or generation from thermal coal. 2. We will progressively reduce the 50% threshold so that by 2030 the requirement for a diversification strategy will apply to mining, transport and power generating customers with more than 25% thermal coal exposures.

3. NABERS (National Australian Built Environment Rating System) is a rating system measuring the environmental performance of Australian buildings, tenancies and homes, eg energy efficiency, water usage, waste management and indoor environment quality. Source: ANZ 2020 full year results.

# Thank you

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## Forecasts: GDP

	1998-2007 avg	2008-17 avg	2018	2019	2020e	2021f	2022f
United States	3.1	1.5	3.0	2.2	-3.5	<b>6.0</b>	<b>3.2</b>
Euro area	2.4	0.7	1.8	1.3	-6.8	<b>4.0</b>	<b>4.7</b>
United Kingdom	3.0	1.1	1.3	1.5	-9.9	<b>3.9</b>	<b>5.7</b>
Japan	1.0	0.5	0.3	0.7	-4.8	<b>2.0</b>	<b>1.5</b>
Mainland China	10.0	8.3	6.8	6.1	2.3	<b>8.8</b>	<b>5.5</b>
India*	7.2	7.1	6.1	4.2	<b>-7.0</b>	<b>8.0</b>	<b>6.1</b>
South Korea	5.2	3.2	2.9	2.0	-1.0	<b>3.2</b>	<b>2.8</b>
Taiwan	5.1	2.9	2.8	3.0	3.0	<b>3.8</b>	<b>2.5</b>
Indonesia	2.8	5.5	5.2	5.0	-2.1	<b>4.5</b>	<b>6.0</b>
Thailand	3.9	3.1	4.2	2.4	-6.1	<b>3.0</b>	<b>4.8</b>
Hong Kong	3.9	2.7	2.8	-1.2	-6.1	<b>4.1</b>	<b>3.5</b>
Malaysia	4.3	4.8	4.8	4.3	-5.4	<b>7.6</b>	<b>4.7</b>
Singapore	5.5	4.7	3.4	0.7	-5.4	<b>6.3</b>	<b>5.7</b>
Philippines	4.2	5.7	6.3	6.0	-9.5	<b>8.1</b>	<b>5.6</b>
Vietnam	6.8	6.0	7.1	7.0	2.9	<b>7.7</b>	<b>7.0</b>
Emerging Asia	7.5	6.9	6.0	5.1	<b>0.0</b>	<b>7.7</b>	<b>5.3</b>
Australia	3.5	2.6	2.8	1.9	<b>-2.8</b>	<b>4.1</b>	<b>3.4</b>
New Zealand**	3.5	2.4	3.2	2.3	<b>-2.8</b>	<b>3.5</b>	<b>3.7</b>
World	4.2	3.4	3.5	2.8	<b>-2.7</b>	<b>5.3</b>	<b>3.8</b>

\*Fiscal years, eg 2019 is year-ending March 2020. New GDP base year is 2011-12.

\*\*NZ GDP numbers are production based GDP.

\*

Source: Bloomberg, IMF, ANZ Research

## Forecasts: monetary policy

	Current	Mar 21	Jun 21	Sep 21	Dec 21	Mar 22	Jun 22	Sep 22	Dec 22
United States <sup>1</sup>	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Euro area	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
Japan	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
UK	0.10	0.00	0.00	0.00	-0.10	-0.10	-0.10	-0.10	-0.10
Mainland China <sup>2</sup>	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Australia	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
New Zealand	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Hong Kong	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
India	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Indonesia <sup>3</sup>	3.75	3.75	3.50	3.50	3.50	3.50	3.50	3.75	4.00
Malaysia	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.00	2.00
Philippines <sup>4</sup>	2.00	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
South Korea	0.50	0.50	0.50	0.50	0.50	0.50	0.75	0.75	1.00
Taiwan	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
Thailand	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.75
Vietnam	2.50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25

1. For the US, the rate is the ceiling of the Fed Funds' corridor

2. 7-day reverse repo

3. 7-day reverse repo

4. Overnight reverse repurchase (RRP) facility

\*Current as of 16 Feb 2020

# Forecasts: bond yields

	Current	Mar 21	Jun 21	Sep 21	Dec 21	Mar 22	Jun 22	Sep 22	Dec 22
<b>US</b>									
Fed funds rate <sup>1</sup>	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2-year	0.11	0.15	0.15	0.15	0.15	0.25	0.25	0.25	0.25
10-year	1.23	1.00	1.25	1.25	1.50	1.50	1.50	1.75	1.75
<b>Europe</b>									
Deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
<b>Australia</b>									
RBA cash rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
90-day bank bills	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3-year bond	0.11	0.10	0.10	0.30	0.30	0.30	0.45	0.45	0.45
10-year bond	1.32	1.00	1.25	1.25	1.35	1.35	1.35	1.50	1.50
3s10s bond curve (bps)	121	90	115	95	105	105	90	105	105
AU-US 10-year spread (bps)	9	0	0	0	-15	-15	-15	-25	-25
<b>New Zealand</b>									
NZ OCR	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
90-day bills	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
2-year bond	0.23	0.23	0.27	0.27	0.33	0.33	0.33	0.38	0.38
10-year bond	1.43	1.25	1.50	1.50	1.75	1.75	1.75	2.00	2.00
NZ-US 10-year spread (bps)	20	25	25	25	25	25	25	25	25

1. For the US, the rate is the ceiling of the Fed Funds' corridor  
 Bond yields are on government-issued securities at constant maturity  
 \*Current as of 16 Feb 2020

# Forecasts: exchange rates

Current		Forecasts						Forwards		
		Mar 21	Jun 21	Sep 21	Dec 21	Mar 22	Jun 22	3-mths	6-mths	12-mths
EUR/USD	1.22	1.22	1.24	1.26	1.28	1.28	1.30	1.22	1.22	1.22
GBP/USD	1.39	1.36	1.38	1.39	1.40	1.42	1.42	1.39	1.39	1.39
USD/JPY	105	104	103	102	102	102	102	105	105	105
EUR/GBP	0.87	0.90	0.90	0.91	0.91	0.90	0.92	0.87	0.88	0.88
EUR/CHF	1.08	1.09	1.10	1.12	1.14	1.14	1.15	1.08	1.08	1.08
USD/CHF	0.89	0.89	0.89	0.89	0.89	0.89	0.88	0.89	0.88	0.88
AUD/USD	0.78	0.77	0.79	0.80	0.82	0.82	0.82	0.78	0.78	0.78
NZD/USD	0.73	0.71	0.72	0.73	0.74	0.74	0.74	0.73	0.73	0.73
AUD/NZD	1.07	1.08	1.10	1.10	1.11	1.11	1.11	1.07	1.07	1.07
USD/CNY	6.46	6.45	6.40	6.35	6.30	6.25	6.20	6.50	6.55	6.61
USD/CNH	6.41	6.45	6.40	6.35	6.30	6.25	6.20	6.45	6.50	6.58
USD/IDR	13930	13900	13800	13750	13700	13650	13600	14079	14226	14542
USD/INR	72.77	73.50	73.00	72.50	72.00	72.50	72.75	73.8	74.7	76.5
USD/KRW	1100	1090	1080	1070	1060	1055	1050	1103	1099	1101
USD/MYR	4.03	4.02	3.98	3.94	3.90	3.88	3.85	4.04	4.05	4.07
USD/PHP	48.23	48.30	48.30	48.40	48.50	48.70	48.90	48.2	48.3	48.5
USD/SGD	1.323	1.335	1.330	1.325	1.320	1.315	1.310	1.324	1.324	1.324
USD/THB	29.88	30.50	30.60	30.50	30.40	30.30	30.20	30.0	30.0	30.0
USD/TWD	28.18	28.30	28.20	28.10	28.00	27.90	27.80	28.0	28.0	27.9
USD/VND	22996	22950	22900	22850	22800	22780	22760	23056	23217	23183
USD/HKD	7.75	7.75	7.75	7.75	7.75	7.76	7.76	7.75	7.75	7.75

\*Current as of 16 Feb 2020

Source: Bloomberg, ANZ Research

# Forecasts: commodities

	Unit	Current	Mar 21	Jun 21	Sep 21	Dec 21	Mar 22	Jun 22	2020	2021f	2022f
<b>Base Metals</b>											
Copper	USD/t	8394	8000	7500	8500	8500	8500	8500	6180	8030	8670
Aluminium	USD/t	2084	2000	1875	1900	1900	1900	1900	1680	1920	2030
Nickel	USD/t	18623	18000	17600	18150	18150	18150	18150	13550	17390	18950
Zinc	USD/t	2771	2900	2950	2900	2900	2900	2900	2220	2830	2880
Lead	USD/t	2124	2000	1950	2000	2000	2000	2000	1810	1980	2000
<b>Precious Metals</b>											
Gold	USD/oz	1825	1950	2100	2000	1900	1850	1800	1748	1988	1735
Silver	USD/oz	28	26.0	26.3	25.0	23.8	23.1	22.5	19.5	25.4	21.7
Platinum	USD/oz	1287	1000	975	1020	1050	1150	1150	851	1001	1140
Palladium	USD/oz	2407	2200	2150	2000	1950	1850	1800	2194	2110	1815
<b>Energy</b>											
WTI Crude	USD/bbl	59	53	56	58	61	63	58	38	55	60
Brent Crude	USD/bbl	63	55	58	60	63	65	60	41	58	62
<b>Bulks**</b>											
Iron Ore	USD/t	160	160	130	115	100	85	80	111	132	81
Premium coking coal	USD/t	145	115	120	130	140	145	150	142	124	147
Thermal coal	USD/t	87	80	78	77	75	70	70	69	77	70

Quarterly forecasts are end-period prices

\*Current as of 16 Feb 2020

\*\* Iron ore is spot price (62% fines) including freight to Qingdao Port, China

\*\* Coking coal is Australian coking coal free on board price. Thermal coal is Newcastle futures contract

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[1 February 2021]

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