

Weekly Economic Commentary.

A very deep recession, but hopefully brief.

The Covid-19 situation has escalated dramatically and New Zealand is heading for a severe recession. Financial markets stresses have already emerged and could exacerbate the downturn. Both the Government and the RBNZ have already responded aggressively, and further action is likely.

We are forecasting that the New Zealand economy will shrink by 3.1% over the first three quarters of this year as a result of disruptions stemming from the Coronavirus outbreak. In the June quarter alone, we expect GDP to fall 2.7%. In comparison, during the Global Financial Crisis it took eighteen months for the economy to shrink by 2.7%.

The downturn will be particularly stark in our export sectors. Restrictions on travel, including the closure of New Zealand's borders, are going to effectively eliminate international tourism and severely reduce export education. New Zealand's key goods exports will also be impacted, with weakness in the global economy weighing on demand for manufactured exports and forestry products. Prices of New Zealand's key food exports have already fallen and may fall further yet.

Closer to home, Coronavirus disruptions will result in consumer spending falling by about 4% within a few months,

with social distancing, job losses and falls in confidence all weighing on spending. Household spending will begin to recover as soon as gatherings and travel are allowed. However, a full recovery will take some time, as the labour market only slowly absorbs the unemployed and consumer confidence returns only gradually.

The currently-red-hot housing market will soon screech to a halt as people become more cautious about investments. How far house prices fall will depend on sentiment. At this stage we are pencilling in a 3% decline later this year, which would leave annual house price inflation for 2020 at about zero. However, once virus related disruptions pass, and both activity and confidence begin to recover, we expect that low interest rates will provide a powerful boost to asset prices, including New Zealand house prices. We have lifted our longer-term house price forecast and now expect house price inflation of 9% in 2021 and 7% in 2022.



In the business sector, weak demand will see investment plans shelved and job losses, especially in sectors like tourism and hospitality. Overall, we expect the unemployment rate to rise from 4% now to 5.5% by September, equating to 45,000 additional unemployed people. The firms in affected industries that survive this downturn will only do so by borrowing to get through. Once the recovery begins, they will be focused on debt repayment and balance sheet repair. That is why unemployment and investment spending will recover more slowly than other parts of the economy.

The crucial factor affecting how long the recession lasts is the health of the financial system. With investors globally flocking to the safety of cash, financial markets are showing signs of stress. Asset prices have fallen, and interest rates have been dragged higher, including those on New Zealand Government bonds. That's happening at the same time as the Treasury needs to issue more bonds to fund the Government's massive spending plans. Left unchecked, these conditions could result in the interest rates ordinary households and businesses face also pushing higher.

The RBNZ has responded aggressively. Last week, they cut the Official Cash Rate by 75bps to just 0.25% at an unscheduled inter-meeting decision. The RBNZ has said that the OCR will remain around this level for at least 12 months. We expect that it will remain there even longer.

The RBNZ went even further addition on Monday this week, announcing a Large Scale Asset Purchase Programme - otherwise known as quantitative easing (QE) or money printing. The RBNZ will purchase \$30bn of New Zealand Government bonds over the next 12 months. That would see the RBNZ owning about a third of the Government bonds on issue in twelve months' time, which is similar in size to overseas QE programmes. The RBNZ's QE announcement followed a sharp increase in the interest rate on New Zealand Government bonds. Mum and Dad investors around the world are dumping assets and stampeding into cash, creating massive price declines for everything including Government bonds. This caused the interest rate on Government bonds to rise, which left unchecked would have caused interest rates in the wider economy to rise - exactly the opposite of what the RBNZ needs in order to achieve its inflation and employment targets. Buying the Government bonds is necessary to reverse this situation.

The RBNZ has also announced a range of measures to support stressed financial markets:

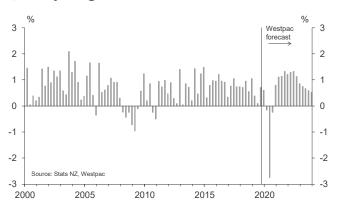
A Term Auction Facility has been introduced. The RBNZ will lend to banks for up to 12 months, taking Government bonds, residential mortgage-backed securities, and other bonds as collateral. This will ensure banks are well-funded for the foreseeable future and will prevent an increase in the cost of bank funding. In turn, that will help ensure that short-term interest rates for businesses and households remain low.

- FX swap market funding has also been introduced to limit cost of funding increases for local banks.
- A \$30bn US dollar swap line has been established that will enable the RBNZ to borrow US dollars if needed.

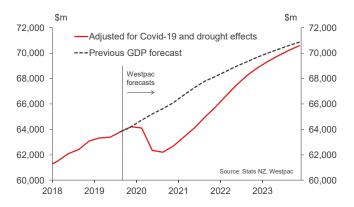
On the fiscal front, the Government has announced a massive fiscal stimulus package. That includes a massive wage subsidy which will help keep some small businesses afloat and will limit the inevitable rise in unemployment. The scheme is initially limited to 12 weeks, but we think the Government will have to extend.

This support for the economy is necessary, but could prove incredibly expensive. The Government debt to GDP ratio is currently 18.5%. Combined with existing spending plans, the support measures that have been introduced are likely to result in government debt rising to at least 30% of GDP by the end of this year or early next. Future Government stimulus plans should be demonstrably temporary, in order to reassure markets that the Government has a plan to repay the debt once Covid-19 has passed.

Quarterly GDP growth



Covid-19 and drought impact on the New Zealand economy – level of GDP



New Zealand forecasts.

Economic forecasts		Quar	terly		Annual			
	2019	2020						
% change	Dec (a)	Mar	Jun	Sep	2018	2019	2020f	2021f
GDP (Production)	0.5	-0.2	-2.7	-0.2	3.2	2.3	-1.4	2.8
Employment	0.0	0.0	-0.7	-0.4	1.9	1.0	-0.7	2.8
Unemployment Rate % s.a.	4.0	4.3	4.9	5.4	4.3	4.0	5.3	4.7
СРІ	0.5	0.5	0.1	0.9	1.9	1.9	1.9	1.4
Current Account Balance % of GDP	-3.0	-3.0	-3.5	-3.7	-3.8	-3.0	-4.1	-3.1

Financial forecasts	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21
Cash	0.25	0.25	0.25	0.25	0.25	0.25
90 Day bill	0.40	0.40	0.40	0.40	0.40	0.40
2 Year Swap	0.60	0.60	0.60	0.65	0.70	0.80
5 Year Swap	0.70	0.75	0.80	0.90	1.00	1.10
10 Year Bond	0.90	0.85	0.90	0.95	1.00	1.15
NZD/USD	0.61	0.64	0.65	0.65	0.65	0.66
NZD/AUD	0.96	0.97	0.97	0.96	0.96	0.95
NZD/JPY	64.4	67.2	68.3	68.9	69.6	70.7
NZD/EUR	0.58	0.62	0.62	0.61	0.61	0.61
NZD/GBP	0.53	0.54	0.54	0.53	0.53	0.53
TWI	69.1	71.5	72.0	71.4	71.2	71.3

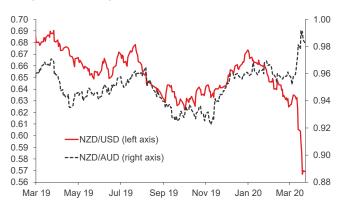
2 year swap and 90 day bank bills



NZ interest rates as at market open on 23 March 2020

Interest rates	Current	Two weeks ago	One month ago
Cash	0.25%	1.00%	1.00%
30 Days	0.43%	1.00%	1.10%
60 Days	0.55%	0.91%	1.12%
90 Days	0.67%	0.83%	1.14%
2 Year Swap	0.68%	0.71%	1.04%
5 Year Swap	0.92%	0.77%	1.11%

NZD/USD and NZD/AUD



NZ foreign currency mid-rates as at 23 March 2020

Exchange rates	Current	Two weeks ago	One month ago
NZD/USD	0.5691	0.6334	0.6349
NZD/EUR	0.5341	0.5582	0.5852
NZD/GBP	0.4894	0.4853	0.4893
NZD/JPY	63.13	66.09	70.86
NZD/AUD	0.9826	0.9579	0.9613
TWI	66.91	70.35	71.19

Data calendar.

		Last	Market median	Westpac forecast	Risk/Comment
Mon 23					
Eur	Mar consumer confidence	-6.6	-14.0	-	Severe disruptions to weigh on confidence.
US	Feb Chicago Fed activity index	-0.25	-	-	US industry under significant pressure.
Tue 24					
Eur	Mar Markit manufacturing PMI	49.2	41.0	-	Sharp pullbacks expected across mfg and services
	Mar Markit services PMI	52.6	43.0	-	as Europe continues to grapple with the contagion.
UK	Mar Markit manufacturing PMI	51.7	49.0	-	as COVID-19 spreads
	Mar Markit services PMI	53.2	48.0	_	and job losses mount.
US	Mar Markit manufacturing PMI	50.7	45.0	-	The US is expected to enter recession
	Mar Markit services PMI	49.4	44.0	-	through mid year. Downside risks clear.
	Feb new home sales	764k	750k	-	Demand to be hit hard by COVID-19.
	Mar Richmond Fed index	-2	-4	-	US industry under significant pressure.
Wed 25					
NZ	Feb trade balance \$m	-340	550	-	Largely predates the recent disruptions to global trade.
UK	Feb CPI	-0.3%	-	-	Inflation to be weak indefinitely.
US	Feb durable goods orders	-0.2%	-0.8%	-	Investment to deteriorate ahead.
	Jan FHFA house prices	0.6%	-	-	Will weaken with demand.
Thu 26					
Eur	Feb M3 money supply %yr	5.2%	5.1%	-	Credit data also due.
UK	Feb retail sales	0.9%	0.1%	-	Panic buying followed by jolt lower.
US	Feb wholesale inventories	-0.4%	-	_	To be wound down.
	Q4 GDP %qtr annualised	2.1%	2.1%	-	Third release of GDP is expected to be unchanged.
	Initial jobless claims	281k	-	-	An important barometer for the impact of COVID-19.
	Mar Kansas City Fed index	5	-	-	US industry under significant pressure.
Fri 27					
NZ	Mar ANZ consumer confidence	122.1	-	-	Likely to drop in response to COVID-19 concerns.
Chn	Feb industrial profits %yr	-6.3%	-	_	As for demand, will be weak.
	Q4 current account balance \$bn	40.1	-	-	Full detail on trade and financial flows.
US	Feb personal income	0.6%	0.4%	-	Income will come under pressure slowly
	Feb personal spending	0.2%	0.3%	-	as jobs are lost. Spending will be hit hard in March.
	Feb PCE deflator	0.1%	0.1%	-	Inflation to remain below target.
	Mar Uni. of Michigan sentiment	95.9	94.0	-	Final estimate for month.
Sat 28					
UK	Mar Nationwide house prices	0.3%	_	_	To deteriorate from here.

International forecasts.

Economic forecasts (Calendar years)	2016	2017	2018	2019	2020f	2021f
Australia						
Real GDP % yr	2.8	2.5	2.7	1.8	1.5	2.7
CPI inflation % annual	1.5	1.9	1.8	1.8	1.5	2.4
Unemployment %	5.7	5.5	5.0	5.2	7.0	6.3
Current Account % GDP	-3.1	-2.6	-2.1	0.5	-0.5	-1.8
United States						
Real GDP %yr	1.6	2.4	2.9	2.3	1.3	1.6
Consumer Prices %yr	1.4	2.1	2.4	1.8	1.9	1.9
Unemployment Rate %	4.9	4.4	3.9	3.7	3.4	3.6
Current Account %GDP	-2.3	-2.3	-2.3	-2.6	-2.5	-2.4
Japan						
Real GDP %yr	0.6	1.9	0.8	0.7	0.1	0.4
Euro zone						
Real GDP %yr	1.9	2.5	1.9	1.2	0.2	1.0
United Kingdom						
Real GDP %yr	1.8	1.8	1.4	1.3	0.5	1.0
China						
Real GDP %yr	6.7	6.8	6.6	6.1	5.2	6.3
East Asia ex China						
Real GDP %yr	4.0	4.5	4.3	3.6	3.1	3.9
World						
Real GDP %yr	3.4	3.8	3.6	3.0	2.6	3.2
Forecasts finalised 20 March 2020						

Interest rate forecasts	Latest	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
Australia								
Cash	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
90 Day BBSW	0.65	0.60	0.55	0.50	0.50	0.50	0.50	0.50
10 Year Bond	1.31	0.80	0.75	0.75	0.80	0.85	0.90	0.95
International								
Fed Funds	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
US 10 Year Bond	1.14	0.75	0.70	0.75	0.80	0.85	0.90	1.00
ECB Deposit Rate	-0.50	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70	-0.70

Exchange rate forecasts	Latest	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
AUD/USD	0.5684	0.64	0.66	0.67	0.68	0.68	0.69	0.70
USD/JPY	110.95	105	105	105	106	107	108	110
EUR/USD	1.0667	1.05	1.04	1.05	1.06	1.07	1.08	1.10
GBP/USD	1.1446	1.16	1.18	1.20	1.22	1.23	1.24	1.25
USD/CNY	7.1082	6.90	6.85	6.80	6.75	6.75	6.70	6.60
AUD/NZD	1.0115	1.04	1.03	1.03	1.05	1.05	1.05	1.06

Contact the Westpac economics team.

Dominick Stephens, Chief Economist

+64 9 336 5671

Michael Gordon, Senior Economist

+64 9 336 5670

Satish Ranchhod, Senior Economist

+64 9 336 5668

Paul Clark, Industry Economist

+64 9 336 5656

Any questions email:

economics@westpac.co.nz

Past performance is not a reliable indicator of future performance. The forecasts given in this document are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Disclaimer.

Things you should know

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141

Disclaimer

This material contains general commentary, and market colour. The material does not constitute investment advice. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts. and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Australia: Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac. co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Pisclosure Statement at www.westpac. Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Rong Branch holds a banking license and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Rong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

UK: The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiffi in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and tregulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant persons should not act or rely on this communication or any of its contents. The investments owhich this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed,

directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment Recommendations Disclosure

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12

We stpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

- Chinese Wall/Cell arrangements:
- physical separation of various Business/Support Units;
- and well defined wall/cell crossing procedures;
- a "need to know" policy;
- documented and well defined procedures for dealing with conflicts of interest;
- steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

U.S: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ("WCM"), a Wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ("the Exchange Act and member of the Financial Industry Regulatory Authority ("FINRA"). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accept responsibility for the contents of this communication. All disclaimers set out with respect to Westpac responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominants a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.