FINANCIALS NEW ZEALAND EQUITY RESEARCH **EXCHANGE & MARKETS OPERATOR** 6 AUGUST 2020

# NZX

# 1H20 preview — Quick off the Blocks

#### **JAMIE FOULKES**

jamie.foulkes@forsythbarr.co.nz +64 4 491 2217

## OUTPERFORM 2



Our analysis of NZX's monthly operating metrics suggests the company has performed well over the last six months, with standout performances in the Secondary Market and Data & Insights divisions. Consequently, we update our forecasts before the interim result on the 13th August. We lift our FY20 EBITDA forecasts to NZ\$33m vs current guidance of NZ\$30-33.5m. Our current numbers include +22% EBITDA growth in 1H20 and a conservative -9% in 2H20. This is partially due to a strong 2H19 and a softening of COVID-19 tailwinds. Given the strong start to the year, we see upside risk to full year forecasts and potential for a tightening or raising of full year guidance if better than expected trends continue. We raise our target price to NZ\$1.65 due to a contract win in the Wealth Technologies business and reiterate our OUTPERFORM recommendation.

NZX Code	NZX	Financials: Dec/	19A	20E	21E	22E	Valuation (x)	19A	20E	21E	22E
Share price	NZ\$1.46	NPAT* (NZ\$m)	14.6	16.0	17.3	20.0	EV/EBITDA	12.7	12.0	11.3	10.2
Target price	NZ\$1.65	EPS* (NZc)	5.3	5.7	6.2	7.1	EV/EBIT	17.4	16.4	15.2	13.3
Risk rating	Medium	EPS growth* (%)	5.4	8.7	7.3	15.4	PE	27.6	25.4	23.7	20.5
Issued shares	277.2m	DPS (NZc)	6.1	6.1	6.1	7.0	Price / NTA	n/a	n/a	n/a	n/a
Market cap	NZ\$405m	Imputation (%)	100	100	100	100	Cash div yld (%)	4.2	4.2	4.2	4.8
Avg daily turnover	278.6k (NZ\$364k)	*Based on normalis	ed profit	S			Gross div yld (%)	5.8	5.8	5.8	6.7

## **Issuer Relationships**

The division has benefited from a number of secondary equity capital raises across 1H. At this stage we do not include any IPOs in our FY20 numbers but see NZX's focus on promoting direct listings as positive.

# **Secondary Markets**

Total value traded has exceeded expectations throughout the year with March and April reporting a period of super trading driven by high volatility. This has been driven by both underlying growth and increased retail participation. Our H2 numbers forecast a softening of total traded value, but comfortably ahead of the prior year.

### Data & Insights

Total terminals and licences reported have remained at elevated levels since April. We believe demand growth will continue for the year with increased interest and participation in New Zealand capital markets both domestically and internationally.

# **Funds Under Management**

Total Funds Under Administration continues to recover from a low in March with four new Smartshares ETFs added to the portfolio in July. We expect to see additional funds added in the second half.

# Wealth Technologies

Total Funds Under Administration saw a sharp increase in June operating stats with the additional of a new (unnamed client). At this stage we still expect Saturn and Hobson to be fully onboarded by FY20.

# ☼ FORSYTH BARR

# NZX Ltd (NZX)

Page	Priced as at 05 Aug 2020 (NZ\$)					1.46						
Perfect North No	12-month target price (NZ\$)*					1.65	Spot valuations (NZ\$)					
Mathematical												1.65
Communication												
Pacific place	·											
Pacific place	VN/ACC						DCF(A17¢)					
Post-part   Post						2.00%						452
Pontification   Pontificatio												
Profit and Los Account (NZS)	• •						, ,					
Profit and Loss Account (NZSm)   2018												
Selective	ierminai growth					1.5%	value of equity					#N/A
Nominale GBITDA	Profit and Loss Account (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Valuation Ratios	2018A	2019A	2020E	2021E	2022E
Performalised Entropy	Sales revenue	64.5	69.5	74.8	78.5	85.3	EV/EBITDA (x)	13.8	12.7	12.0	11.3	10.2
Name	Normalised EBITDA	28.6	31.4	32.9	34.9	38.7	EV/EBIT (x)	18.5	17.4	16.4	15.2	13.3
Net minerest   1,3   20   1,	Depreciation and amortisation	(7.2)	(8.6)	(8.8)	(8.9)	(9.1)	PE (x)	29.1	27.6	25.4	23.7	20.5
Associate fracemen   G   G   G   G   G   G   G   G   G	Normalised EBIT	21.3	22.8	24.2	25.9	29.6	Price/NTA (x)	n/a	n/a	n/a	n/a	n/a
Table   Tabl	Net interest	(1.3)	(2.0)	(1.9)	(1.9)	(1.9)	Free cash flow yield (%)	3.8	4.1	3.7	4.0	4.6
Momerised NPAT   13,7   14,6   16,6   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0   16,7   20,0	Associate income	0	0	0	0	0	Net dividend yield (%)	5.2	4.2	4.2	4.2	4.8
Normalised NPAT   1.6	Tax	(6.1)	(5.9)	(6.2)	(6.7)	(7.8)	Gross dividend yield (%)	7.2	5.8	5.8	5.8	6.7
Post	Minority interests	0	0	0	0	0						
Peneral MPAT	Normalised NPAT	13.7	14.6	16.0	17.3	20.0	Capital Structure	2018A	2019A	2020E	2021E	2022E
Page	Abnormals/other	(2.0)	0	0	0	0	Interest cover EBIT (x)	16.8	11.7	12.6	13.6	15.7
Normalised EPS(cps)   5.0	Reported NPAT	11.6	14.6	16.0	17.3	20.0						
OPS (cps)         7.6         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         6.1         9.0         2.0         4.0 <th< td=""><td>Normalised EPS (cps)</td><td>5.0</td><td>5.3</td><td>5.7</td><td>6.2</td><td>7.1</td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Normalised EPS (cps)	5.0	5.3	5.7	6.2	7.1						
Provide Revenue (%)			6.1	6.1	6.1		, ,					
Revenue (%)							1100 0000 2511 57 (77)	.,, a	1,70	1,70	,	11/0
Relitrick   1-5	Growth Rates	2018A	2019A	2020E	2021E	2022E	Key Ratios	2018A	2019A	2020E	2021E	2022E
BIT (R)   C	Revenue (%)	-14.4	7.9	7.6	5.0	8.6	Return on assets (%)	11.4	10.7	11.2	12.0	13.6
Normalised NPAT (%)   7.8   7.8   7.1   7.8   7.3	EBITDA (%)	-1.5	9.8	5.1	5.9	11.0	Return on equity (%)	22.2	22.9	24.0	25.6	28.7
Normalised EPS (%)	EBIT (%)	-2.8	6.7	6.2	7.3	14.2	Return on funds employed (%)	27.9	30.7	31.6	32.9	36.4
Common PDF(%)   Common PDF(	Normalised NPAT (%)	-7.8	7.1	9.4	7.9	15.4	EBITDA margin (%)	44.3	45.1	44.0	44.4	45.4
Caper   Cape	Normalised EPS (%)	-8.5	5.4	8.7	7.3	15.4	EBIT margin (%)	33.1	32.7	32.3	33.0	34.7
Part	Ordinary DPS (%)	0.0	0.0	0.0	0.0	14.8	Capex to sales (%)	14.6	11.9	12.7	12.3	11.5
Part							Capex to depreciation (%)	583	416	495	509	525
Norking capital change	Cash Flow (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Imputation (%)	100	100	100	100	100
Comparison   Com	EBITDA	28.6	31.4	32.9	34.9	38.7	Pay-out ratio (%)	152	116	106	99	98
Other         2.0         1.1         0         0         0         Revenue (NZ\$m)           Operating cash flow         24.9         24.8         24.4         26.0         28.6         Core markets         51.9         54.5         58.5         58.3         58.5           Capital expenditure         (9.4)         (8.0)         (9.5)         (9.6)         (9.8)         Funds services         12.5         14.6         10.0         19.9         26.5           Chapital expenditure         (2.1)         (1.3)         0.0         0         0         Corporate         -         0.5         0.3         19.3         20.3           Other         (2.1)         (1.3)         0         0         0         Corporate         -         0.5         74.8         78.5         85.3           Funding available/frequired)         8.0         15.2         14.9         16.3         18.8         18.7         18.3 <t< td=""><td>Working capital change</td><td>1.7</td><td>0.2</td><td>(0.4)</td><td>(0.3)</td><td>(0.5)</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Working capital change	1.7	0.2	(0.4)	(0.3)	(0.5)						
Coperating cash flow	Interest & tax paid	(7.3)	(7.8)	(8.2)	(8.6)	(9.7)	Operating Performance	2018A	2019A	2020E	2021E	2022E
Capital expenditure   (9.4)   (8.3)   (9.5)   (9.6)   (9.8)   Funds services   12.5   14.6   16.0   19.9   26.5	Other	2.0	1.1	0	0	0	Revenue (NZ\$m)					
CACquisitions)/divestments   CAC	Operating cash flow	24.9	24.8	24.4	26.0	28.6	Core markets	51.9	54.5	58.5	58.3	58.5
Colter   C	Capital expenditure	(9.4)	(8.3)	(9.5)	(9.6)	(9.8)	Funds services	12.5	14.6	16.0	19.9	26.5
Cher	(Acquisitions)/divestments	(5.4)	(0.0)	0	0	0	Corporate	-	0.5	0.3	0.3	0.3
Dividends paid   17.5   12.8   13.8   13.8   17.0   18.4   Revenue % chg   Equity raised/(returned)   0   0   0   0   0   0   0   0   0	Other	(2.1)	(1.3)	0	0	0	Total revenue	64.5		74.8		
Commarkets   Com	Funding available/(required)	8.0	15.2	14.9	16.3	18.8						
Commarkets   Com	Dividends paid	(17.5)	(12.8)	(13.8)	(17.0)	(18.4)	Revenue % chg					
Cincrease)/decrease in net debt   (9.5)   2.4   1.1   (0.7)   0.4   Funds services   10.7%   16.4%   9.9%   24.4%   33.1%   18.4%	Equity raised/(returned)	0	0	0	0	0	Core markets	-0.8%	4.9%	7.4%	-0.3%	0.3%
Note		(9.5)	2.4	1.1	(0.7)	0.4						
Morking capital   S.4   S.2   S.6   S.9   S.7   Core markets   S.7   S.6   S.9   S.7   S.7   S.7   S.7   S.8   S.9   S												
Fixed assets         2.8         2.6         2.7         2.7         2.8         Core markets         39.5         41.2         44.8         43.6         43.5           Intangibles         66.7         66.7         68.9         69.9         70.9         Funds services         4.8         5.2         5.9         7.5         12.4           Right of use asset         6.3         5.8         5.6         5.3         5.1         Corporate         (15.7)         (15.0)         (17.7)         (16.3)         (17.2)           Other assets         56.7         79.7	Balance Sheet (NZ\$m)	2018A	2019A	2020E	2021E	2022E						
Intangibles         66.7         67.7         68.9         69.9         70.9         Funds services         4.8         5.2         5.9         7.5         12.4           Right of use asset         6.3         5.8         5.6         5.3         5.1         Corporate         (15.7)         (15.0)         (17.7)         (16.3)         (17.2)           Other assets         56.7         79.7         79.7         79.7         Total EBITDA         28.6         31.4         32.9         34.9         38.7           Total funds employed         137.9         161.0         162.4         163.6         164.9	Working capital	5.4	5.2	5.6	5.9	6.4	EBITDA (NZ\$m)					
Right of use asset         6.3         5.8         5.6         5.3         5.1         Corporate         (15.7)         (15.0)         (17.7)         (16.3)         (17.2)           Other assets         56.7         79.7         79.7         79.7         Total EBITDA         28.6         31.4         32.9         34.9         38.7           Total funds employed         137.9         161.0         162.4         163.6         164.9         166.9 <t< td=""><td>Fixed assets</td><td>2.8</td><td>2.6</td><td>2.7</td><td>2.7</td><td>2.8</td><td>Core markets</td><td>39.5</td><td>41.2</td><td>44.8</td><td>43.6</td><td>43.5</td></t<>	Fixed assets	2.8	2.6	2.7	2.7	2.8	Core markets	39.5	41.2	44.8	43.6	43.5
Right of use asset         6.3         5.8         5.6         5.3         5.1         Corporate         (15.7)         (15.0)         (17.7)         (16.3)         (17.2)           Other assets         56.7         79.7         79.7         79.7         70.7	Intangibles	66.7	67.7	68.9	69.9	70.9	Funds services	4.8	5.2	5.9	7.5	12.4
Other assets         56.7         79.7         79.7         79.7         79.7         Total EBITDA         28.6         31.4         32.9         34.9         38.7           Total funds employed         137.9         161.0         162.4         163.6         164.9 </td <td>-</td> <td></td>	-											
Total funds employed         137.9         161.0         162.4         163.6         164.9           Net debt/(cash)         (6.6)         (8.9)         (10.0)         (9.3)         (9.7)         EBITDA% chg           Lease liability         8.1         7.2         6.6         6.3         6.0         Core markets         -2.6%         4.2%         8.8%         -2.6%         -0.4%           Other liabilities         75.0         98.8         99.0         99.0         98.9         Funds services         74.7%         8.6%         13.8%         27.9%         65.1%           Shareholder's funds         61.4         63.9         66.8         67.6         69.7         Total EBITDA         -1.5%         9.8%         5.1%         5.9%         11.0%           Minority interests         0         <	•						·					
Net debt/(cash)         (6.6)         (8.9)         (10.0)         (9.3)         (9.7)         EBITDA % chg           Lease liability         8.1         7.2         6.6         6.3         6.0         Core markets         -2.6%         4.2%         8.8%         -2.6%         -0.4%           Other liabilities         75.0         98.8         99.0         99.0         98.9         Funds services         74.7%         8.6%         13.8%         27.9%         65.1%           Shareholder's funds         61.4         63.9         66.8         67.6         69.7         Total EBITDA         -1.5%         9.8%         5.1%         5.9%         11.0%           Minority interests         0         <												
Lease liability         8.1         7.2         6.6         6.3         6.0         Core markets         -2.6%         4.2%         8.8%         -2.6%         -0.4%           Other liabilities         75.0         98.8         99.0         99.0         98.9         Funds services         74.7%         8.6%         13.8%         27.9%         65.1%           Shareholder's funds         61.4         63.9         66.8         67.6         69.7         Total EBITDA         -1.5%         9.8%         5.1%         5.9%         11.0%           Minority interests         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>EBITDA % chg</td> <td></td> <td></td> <td></td> <td></td> <td></td>							EBITDA % chg					
Other liabilities         75.0         98.8         99.0         99.0         98.9         Funds services         74.7%         8.6%         13.8%         27.9%         65.1%           Shareholder's funds         61.4         63.9         66.8         67.6         69.7         Total EBITDA         -1.5%         9.8%         5.1%         5.9%         11.0%           Minority interests         0								-2.6%	4.2%	8.8%	-2.6%	-0.4%
Shareholder's funds         61.4         63.9         66.8         67.6         69.7         Total EBITDA         -1.5%         9.8%         5.1%         5.9%         11.0%           Minority interests         0	· · · · · · · · · · · · · · · · · · ·											
Minority interests 0 0 0 0 0 0 0 0 Total funding sources 137.9 161.0 162.4 163.6 164.9												
Total funding sources 137.9 161.0 162.4 163.6 164.9									•		•	
<u> </u>	·											
	-											

 $<sup>^{\</sup>ast}$  Forsyth Barr target prices reflect valuation rolled forward at cost of equity less the next 12-months dividend

# FORSYTH BARR

# Changes to forecasts

We update our FY20 forecast numbers ahead of interim results on 13th August. The predominant drivers to raised forecasts are a contract win for the Wealth Technologies business with increased net cash inflows in the Funds Management business through the addition of new funds. Data and Insights also continues to perform strongly, while FY20E is likely to see a surge in cash traded value as a result of COVID-19.

Figure 1. Changes to full year forecasts

	F	Y20E			FY21E		FY22E		
(NZ\$'000)	Old	New	% change	Old	New	% change	Old	New	% change
Revenue	70,818	74,814	5.6%	75,979	78,532	3.4%	83,388	85,319	2.3%
EBITDA	31,124	32,950	5.9%	34,285	34,880	1.7%	38,360	38,722	0.9%
EBITDA margin %	43.9%	44.0%	0.1%	45.1%	44.4%	-0.7%	46.0%	45.4%	-0.6%
NPAT	14,705	16,026	9.0%	16,862	17,299	2.6%	19,695	19,966	1.4%
EPS (cent)	5.3	5.8	9.0%	6.0	6.2	2.6%	7.1	7.2	1.4%
DPS (cent)	6.1	6.1	0.0%	6.1	6.1	0.0%	7.0	7.0	0.0%

Source: Forsyth Barr analysis

#### **Divisional interim forecasts**

We expect interim results to show continued growth across the five divisions with the standout performer the Secondary Markets division, which benefited from underlying growth in addition to a period of super-trading in March and April.

Issuer Relationships has benefited from a number of secondary equity raises despite the COVID-19 impact to the IPO market.

Data and Insights has seen a significant increase in the number of average terminals and licences recorded across the half, highlighting the increased interest and participation in New Zealand capital markets.

Funds Under Management continues to steadily grow despite exposure to international equity markets with four new ETFs added to the portfolio in July — we expect to see more added across H2.

Wealth Technologies has increased Funds Under Administration to NZ\$3.1bn for the half, partially due to a contract win with a new (unnamed client).

Figure 2. Divisional interim revenue forecasts

1H19	1H20E	% chg
12,115	13,061	8%
7,070	10,187	44%
6,349	7,569	19%
6,305	6,604	5%
838	972	16%
186	109	-41%
32,863	38,502	17%
	12,115 7,070 6,349 6,305 838 186	12,115 13,061 7,070 10,187 6,349 7,569 6,305 6,604 838 972 186 109

Source: Forsyth Barr analysis

Figure 3. Divisional interim EBITDA forecasts

EBITDA NZ\$m	1H19	1H20E	% chg
Issuer Relationships	9,448	10,440	11%
Secondary Markets	3,914	6,799	74%
Data & Insights	5,422	6,702	24%
FUM	3,185	3,051	-4%
Wealth Technologies	-186	-535	187%
Corporate	-7,338	-8,893	21%
Total	14,445	17,564	22%

Source: Forsyth Barr analysis

# FORSYTH BARR

# **Investment Summary**

NZX offers investors leverage to a diverse portfolio of financial markets through its operation of New Zealand's stock exchange and clearing house, as well as its information services and funds services businesses. Following a detailed review by the board and leadership team, that included over 200 interviews with stakeholders, NZX has unveiled a five year strategic plan. NZX has subsequently divested its non-dairy Agri business over the course of 2018, choosing to focus on its core competencies, core markets and fund services. There is significant operating leverage in NZX's business model and while there remain near-term earnings headwinds, this can turn quickly should the NZ capital raising market improve from current low levels. OUTPERFORM.

### Key drivers

- Operating leverage potential: NZX's business is well placed to generate operating leverage, albeit NZX has not experienced this recently with heavy investment in people.
- Regulatory environment: The broad regulatory environment for financial markets and their operation is constantly being reassessed.

#### Other key company and industry issues

- Capital markets performance: Over 50% of NZX's revenues are derived from its capital markets related operations, including annual listing fees, data provision and IPO activity.
- KiwiSaver and FUM: NZX's Funds Management business is now beginning to achieve scale and operating leverage is becoming evident. Continued retail investment in Smartshare ETFs and a growing Kiwisaver base should provide further upside to this division.

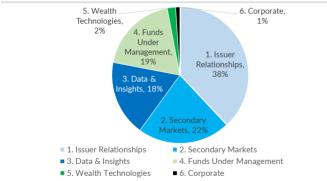
### Upcoming catalysts/events

- Monthly/Quarterly metrics updates: NZX provides a high level of transparency, including its monthly operating metric releases.
- Significant capital raising activity: NZX generates revenue from IPO and capital raisings. Current activity is subdued. With the significant operating leverage in NZX's business model, any significant capital raising activity will positively impact earnings

### **Risk factors**

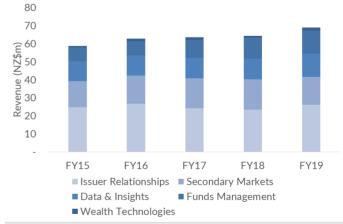
• Market slowdown: Earnings growth is reliant on an active market in trading and capital raising. Any economic or market slowdown would create a material headwind.

Figure 4. Revenue breakdown FY19



Source: Forsyth Barr analysis

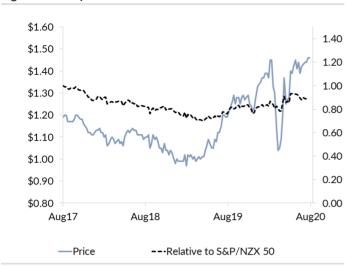
Figure 5. Revenue growth by division FY15-FY19



Source: Forsyth Barr analysis

# 🛟 FORSYTH BARR

Figure 6. Price performance



Source: Forsyth Barr analysis

Figure 7. Substantial shareholders

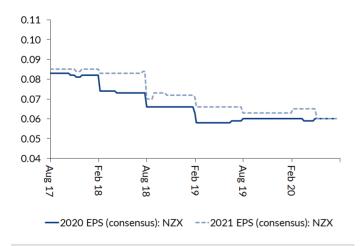
Shareholder	Latest Holding
Aberdeen Asset Management Limited	9.1%
ACC	5.3%

Source: NZX, Forsyth Barr analysis, NOTE: based on SPH notices only

Figure 8. International valuation comparisons Mkt Cap PΕ **EV/EBITDA FV/FBIT** Cash Yld Price (metrics re-weighted to reflect NZX's balance date - December) (m) 2020E 2021E 2020E 2021E 2020E 2021E 2021E NZX NZX NZ NZ\$1.46 NZ\$405 25.4x 23.7x 12.0x 11.3x 16.4x 15.3x 4.2% ASX A\$84.87 32.8x 32.6x 23.1x 22.4x 25.0x 2.8% ASX AT A\$16.430 24.2x CME GROUP INC 17.9× **CME US** US\$163.13 US\$58,497 23.0x 23.0x 18.2x 19.4x 18.9x 4.1% NASDAQ INC NDAQ US US\$129.70 US\$21,280 22.1x 22.1x 16.3x 16.2x n/a n/a 1.6% LONDON STOCK EXCHANGE GROUP LSE LN £84.38 £29,655 40.9x 33.9x 21.7x 15.3x 27.4x 20.2x 1.0% **DEUTSCHE BOERSE AG** DB1 GR €156.30 €29,697 23.7x 23.4x 15.7x 15.3x 18.2x 17.8x 2.1% INTERCONTINENTAL EXCHANGE IN **ICE US** US\$95.78 US\$52.035 21.6x 20.8x 16.4x 16.0x 19.2x 18.8x 1.4% 19.5x TMX GROUP X CN C\$137 14 C\$7,753 22 8x 21 7x 16.5x 15 9x 18 2x 2 1% HONG KONG EXCHANGES & CLEAR 388 HK HK\$376.80 45.0x 14.4x 15.0x HK\$477,721 39.2x 12.5x 12.7x 2.3% SINGAPORE EXCHANGE SGX SP \$\$8.73 \$\$9,332 20.7x 21.5x 14.0x 14.4x 16.5x 17.4x 3.8% 17.4x 20.0x 18.5x 2.3% Compco Average: 28.1x 26.5x 16.2x EV = Current Market Cap + Actual Net Debt **NZX Relative:** -9% -10% -31% -30% -18% -18% 78%

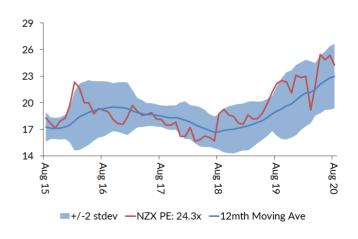
 $Source: *Forsyth\ Barr\ analysis, Bloomberg\ Consensus, Compco\ metrics\ re-weighted\ to\ reflect\ headline\ (NZX)\ companies\ fiscal\ year\ ender the components of the com$ 

Figure 9. Consensus EPS momentum (NZ\$)



Source: Forsyth Barr analysis

Figure 10. One year forward PE (x)



Source: Forsyth Barr analysis

# FORSYTH BARR

Analyst certification: The research analyst(s) primarily responsible for the preparation and content of this publication ("Analysts") are named on the first page of this publication. Each such Analyst certifies (other than in relation to content or views expressly attributed to another analyst) that (i) the views expressed in this publication accurately reflect their personal views about each issuer and financial product referenced and were prepared in an independent manner, including with respect to Forsyth Barr Limited and its related companies; and (ii) no part of the Analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that Analyst in this report.

Analyst holdings: The following Analyst(s) have a threshold interest in the financial products referred to in this publication: N/A. For these purposes, a threshold interest is defined as being a holder of more than \$50,000 in value or 1% of the financial products on issue, whichever is the lesser.

Ratings distributions: As at 4 Aug 2020, Forsyth Barr's research ratings were distributed as follows:

OUTPERFORM
44.2%

AUGUTEAL

UNDERPERFORM
42.3%

13.5%

Forsyth Barr's research ratings are OUTPERFORM, NEUTRAL, and UNDERPERFORM. The ratings are relative to our other equity security recommendations across our New Zealand market coverage and are based on risk-adjusted Estimated Total Returns for the securities in question. Risk-adjusted Estimated Total Returns are calculated from our assessment of the risk profile, expected dividends and target price for the relevant security.

Disclosure: Forsyth Barr Limited and its related companies (and their respective directors, officers, agents and employees) ("Forsyth Barr") may have long or short positions or otherwise have interests in the financial products referred to in this publication, and may be directors or officers of, and/or provide (or be intending to provide) investment banking or other services to, the issuer of those financial products (and may receive fees for so acting). Forsyth Barr is not a registered bank within the meaning of the Reserve Bank of New Zealand Act 1989. Forsyth Barr may buy or sell financial products as principal or agent, and in doing so may undertake transactions that are not consistent with any recommendations contained in this publication. Other Forsyth Barr business units may hold views different from those in this publication; any such views will generally not be brought to your attention. Forsyth Barr confirms no inducement has been accepted from the issuer(s) that are the subject of this publication, whether pecuniary or otherwise, in connection with making any recommendation contained in this publication. In preparing this publication, non-financial assistance (for example, access to staff or information) may have been provided by the issuer(s) being researched.

**Investment banking engagements:** Other than confidential engagements, Forsyth Barr has not within the past 12 months been engaged to provide investment banking services to the issuer that is the subject of this publication. For information about whether Forsyth Barr has within the past 12 months been engaged to provide investment banking services to any other issuer referred to in this publication, please refer to the most recent research report for that issuer's financial products.

Not personalised financial advice: The recommendations and opinions in this publication do not take into account your personal financial situation or investment goals. The financial products referred to in this publication may not be suitable for you. If you wish to receive personalised financial advice, please contact your Forsyth Barr Investment Adviser. The value of financial products may go up and down and investors may not get back the full (or any) amount invested. Past performance is not necessarily indicative of future performance. Disclosure statements for Forsyth Barr Investment Advisers are available on request and free of charge.

Disclaimer: This publication has been prepared in good faith based on information obtained from sources believed to be reliable and accurate. However, that information has not been independently verified or investigated by Forsyth Barr. Forsyth Barr does not make any representation or warranty (express or implied) that the information in this publication is accurate or complete, and, to the maximum extent permitted by law, excludes and disclaims any liability (including in negligence) for any loss which may be incurred by any person acting or relying upon any information, analysis, opinion or recommendation in this publication. Forsyth Barr does not undertake to keep current this publication; any opinions or recommendations may change without notice to you. Any analyses or valuations will typically be based on numerous assumptions; different assumptions may yield materially different results. Nothing in this publication should be construed as a solicitation to buy or sell any financial product, or to engage in or refrain from doing so, or to engage in any other transaction. This publication is not intended to be distributed or made available to any person in any jurisdiction where doing so would constitute a breach of any applicable laws or regulations or would subject Forsyth Barr to any registration or licensing requirement within such jurisdiction.

Terms of use: Copyright Forsyth Barr Limited. You may not redistribute, copy, revise, amend, create a derivative work from, extract data from, or otherwise commercially exploit this publication in any way. By accessing this publication via an electronic platform, you agree that the platform provider may provide Forsyth Barr with information on your readership of the publications available through that platform.