NEW ZEALAND EQUITY RESEARCH OIL & GAS OIL REFINERY 19 NOVEMBER 2020

Refining NZ Stuck on the Floor

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As expected Refining NZ's (NZR) September/October 2020 statistics show another period of operation at fee floor levels, meaning NZR's customers continue to make processing fee top-up payments to the refinery. Notwithstanding customer resistance, NZR is on track to simplify refinery operations by 1 January 2021, reducing refining capacity ~-25%. NZR has revealed that Exxon Mobil has paused its dispute over the refinery simplification as the customers focus on terminal conversion discussions (which are ongoing). With NZR expected to operate at the fee floor for the remainder of 2020, we make no changes to our forecasts. There remains a wide range of value outcomes for NZR, with refinery to import terminal conversion costs and terminal/pipeline fee levels critical for investors to be able to assess NZR's value. We retain our NEUTRAL rating.

NZX Code	NZR	Financials: Dec/	19A	20E	21E	22E	Valuation (x)	19A	20E	21E	22E
hare price	NZ\$0.58	NPAT* (NZ\$m)	4.2	-45.8	-29.0	-10.2	PE	43.5	n/a	n/a	n/a
arget price	NZ\$0.80	EPS* (NZc)	1.3	-65.1	-9.3	-3.3	EV/EBIT	n/a	n/a	n/a	n/a
Risk rating	High	EPS growth* (%)	-85.9	n/a	85.7	64.9	EV/EBITDA	n/a	n/a	n/a	n/a
ssued shares	312.6m	DPS (NZc)	2.0	0.0	0.0	0.0	Price / NTA	0.2	0.3	0.4	0.4
Market cap	NZ\$181m	Imputation (%)	100	100	100	100	Cash div yld (%)	3.4	0.0	0.0	0.
Avg daily turnover	370.1k (NZ\$326k)	*Based on normali	sed profi	ts			Gross div yld (%)	4.8	0.0	0.0	0.

Still operating at fee floor

NZR continues to operate at the fee floor, with top up payments of NZ\$15.8m required from customers for the September/October 2020 period and taking total processing fee revenue to NZ\$23.3m. The Singapore benchmark margin was again negative (-US\$1.64/ barrel) and NZR's uplift was a modest +US\$2.79/barrel (the uplift averages US\$3.50/barrel) resulting in a headline NZR GRM of US\$1.15/barrel. November margins so far appear to be higher than the September/October average (refer Figure 5), but not enough to prevent further processing fee top-up payments in the last two months of 2020.

Following the July/August 2020 six-week shut-down, the September/October 2020 throughput was relatively high at 6.2m barrels, the highest since January/February 2020 and ~88% of full capacity.

Refinery simplification work underway

NZR is continuing to progress plans to simplify the refinery (mothballing a crude distillation unit), reducing throughput ~-25% to ~31m barrels/annum from 1 January 2021, with ~90 employees to depart by the end of March 2021. The simplification of the refinery will ensure NZR can operate on a cash neutral basis in 2021. However, cutting capacity is a negative for customers as it raises the fee floor from US\$3.0/barrel to ~US\$4.5/barrel and makes using the refinery less attractive.

Conversion discussion ongoing

NZR has indicated that discussions are ongoing and that Exxon Mobil has paused its dispute over the simplification process to focus on the terminal conversion discussions - which is encouraging for a conclusion occurring sooner rather than later and highlights the strong desire from the fuel companies that the refinery converts to an import terminal. In addition, NZR has indicated that a front end engineering and design (FEED) has commenced in the next step to better understanding terminal conversion costs and timing. There is no indication when discussions may be concluded, with NZR saying there will be further updates as work is progressed.

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Refining NZ (NZR)

Priced as at 19 Nov 2020 (NZ\$)					0.58						
12-month target price (NZ\$)*					0.80	Spot valuations (NZ\$)					
Expected share price return					37.9%	1. Scenario valuation					0.86
Net dividend yield					0.0%	2. n/a					n/a
Estimated 12-month return					37.9%	3. n/a					n/a
Key WACC assumptions						DCF valuation summary (NZ\$m)					
Risk free rate					1.30%	Total firm value					653
Equity beta					1.09	(Net debt)/cash					(256)
WACC					7.1%	Less: Capitalised operating leases					
Terminal growth					0.0%	Value of equity					397
Profit and Loss Account (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Valuation Ratios	2018A	2019A	2020E	2021E	2022E
Sales revenue	362	348	227	237	257	EV/EBITDA (x)	2.6	3.7	11.3	7.6	5.2
Normalised EBITDA	153	118	38	58	83	EV/EBIT (x)	7.0	23.6	n/a	n/a	n/a
Depreciation and amortisation	(97)	(100)	(88)	(87)	(87)	PE (x)	6.1	43.5	n/a	n/a	n/a
Normalised EBIT	56	18	(49)	(29)	(4)	Price/NTA (x)	0.2	0.2	0.3	0.4	0.4
Net interest	(14)	(13)	(13)	(11)	(10)	Free cash flow yield (%)	-31.8	21.7	-9.3	-0.3	10.0
Associate income	0	0	0	0	0	Net dividend yield (%)	12.9	3.4	0.0	0.0	0.0
Tax	(12)	(1)	16	11	4	Gross dividend yield (%)	18.0	4.8	0.0	0.0	0.0
Minority interests	0	0	0	0	0						
Normalised NPAT	30	4	(46)	(29)	(10)	Capital Structure	2018A	2019A	2020E	2021E	2022E
Abnormals/other	0	0	(158)	0	0	Interest cover EBIT (x)	4.0	1.4	n/a	n/a	n/a
Reported NPAT	30	4	(203)	(29)	(10)	Interest cover EBITDA (x)	11.1	8.8	3.0	5.4	8.1
Normalised EPS (cps)	9.5	1.3	(65.1)	(9.3)	(3.3)	Net debt/ND+E (%)	25.3	24.1	32.0	33.2	32.1
DPS (cps)	7.5	2.0	0	0	0	Net debt/EBITDA (x)	1.7	2.0	6.7	4.4	2.9
Growth Rates	2018A	2019A	2020A	2021A	2022A	Key Ratios	2018A	2019A	2020E	2021E	2022E
Revenue (%)	-12.6	-3.9	-34.8	4.5	8.4	Return on assets (%)	4.0	1.3	-4.5	-2.7	-0.4
EBITDA (%)	-30.7	-22.5	-67.7	51.0	44.5	Return on equity (%)	3.9	0.5	-8.4	-5.6	-2.0
EBIT (%)	-55.3	-67.1	n/a	n/a	n/a	Return on funds employed (%)	4.6	2.1	-3.7	-2.0	0.4
Normalised NPAT (%)	-62.3	-85.9	n/a	n/a	n/a	EBITDA margin (%)	42.1	33.9	16.8	24.3	32.4
Normalised EPS (%)	-62.3	-85.9	n/a	n/a	n/a	EBIT margin (%)	15.3	5.3	-21.8	-12.4	-1.5
Ordinary DPS (%)	-58.3	-73.3	-100.0	n/a	n/a	Capex to sales (%)	44.8	22.3	16.2	20.8	21.4
						Capex to depreciation (%)	167	78	42	57	63
Cash Flow (NZ\$m)	2018A	2019A	2020E	2021E	2022E	Imputation (%)	100	100	100	100	100
EBITDA	153	118	38	58	83	Pay-out ratio (%)	79	150	0	0	0
Working capital change	(39)	23	(12)	2	0						
Interest & tax paid	(25)	(19)	(8)	(11)	(10)	Operating Performance	2018A	2019A	2020E	2021E	2022E
Other	16	(6)	2	0	0	Revenue Breakdown (NZ\$m)					
Operating cash flow	105	117	20	49	73	Processing fee revenue	259	242	140	142	158
Capital expenditure	(162)	(78)	(37)	(49)	(55)	Natural gas recovery	32	40	26	31	32
(Acquisitions)/divestments	0	0	0	0	0	Other refining revenue	14		14	12	12
Other	0	0	5	0	0	Pipeline revenue	44		32	39	42
Funding available/(required)	(58)	39	(12)	(0)	18	Other revenue	14		15	13	13
Dividends paid	(47)	(20)	0	0	0	Total revenue	362	348	227	237	257
Equity raised/(returned)	(0)	(0)	0	0	0						
(Increase)/decrease in net debt	(105)	19	(12)	(0)	18	Processing fee drivers Refining margin (USD/barrel)	6.2	5.3	2.2	3.2	4.6
Balance Sheet (NZ\$m)	2018A	2019A	2020E	2021E	2022E	NZDUSD	0.69		0.64	0.67	0.68
Working capital	19	(5)	16	25	29	Throughput (mbls)	40.4		25.4	31.0	31.0
Fixed assets	1,192	1,171	902	864	832	Refining margin (NZD/barrel)	6.2		2.5	3.4	4.7
Intangibles	14	22	12	12	12						
Right of use asset	0	0	0	0	0	Fee floor (estimated) (USD/barrel)	3.3	3.0	5.1	4.4	4.5
Other assets	0	4	3	3	3				- · · · ·		
Total funds employed	1,226	1,193	933	905	876	Operating cost breakdown (NZ\$m)					
Net debt/(cash)	260	242	255	256	238	Process materials and utilities	49	59	48	51	46
Lease liability	0	0	0	0	0	Natural gas costs	32		26	31	32
Other liabilities	196	191	133	133	133	Materials & contractor payments	29		19	20	22
Shareholder's funds	769	760	544	514	504	Wages & salaries	61		62	47	48
Minority interests	0	0	0	1	1	Admin & other expenses	38		33	30	26
Total funding sources	1,226	1,193	933	905	876	Total expenses	210		189	180	174
* Forsyth Barr target prices reflect va									/		

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

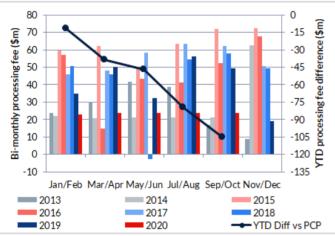
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Figure 1. September/October 2020 operating statistics

	Sep/Oct 2019	Jul/Aug 2020	Sep/Oct 2020	% Diff pcp	% Diff mom
Throughput (000 barrels)	7,245	1,766	6,219	-14%	252%
Gross Refining Margin (US\$/barrel)	\$6.16	-\$4.18	\$1.15	-81%	-128%
NZDUSD	0.634	0.660	0.670	6%	2%
NZD processing revenue (NZ\$m)	49.3	23.7	23.3	-53%	-2%
Fee floor payment (NZ\$m)	0.0	31.5	15.8		

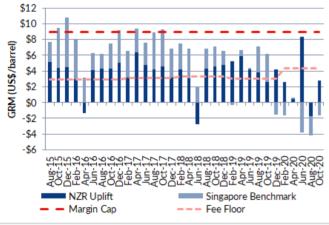
Source: NZR, Forsyth Barr analysis

Figure 2. Historic processing fees



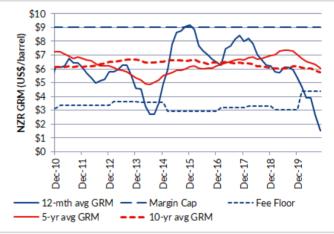
Source: NZR, Forsyth Barr analysis

Figure 4. Historic NZR uplift



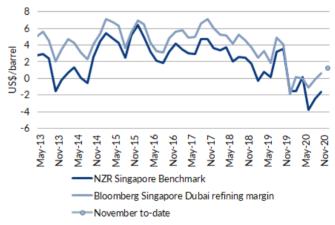
Source: NZR, Forsyth Barr analysis

Figure 3. Historic gross refining margin



Source: NZR, Forsyth Barr analysis

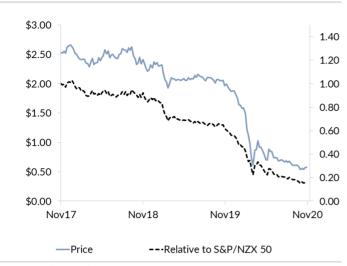
Figure 5. NZR Singapore benchmark vs Bloomberg benchmark



Source: NZR, Bloomberg, Forsyth Barr analysis

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Figure 6. Price performance



Source: Forsyth Barr analysis

Figure 7. Substantial shareholders

Shareholder	Latest Holding
Mobil Oil NZ Limited	17.2%
Z Energy Holdings Limited	15.4%
BP	10.1%
Wellington Management Company	9.3%
ACC	7.0%

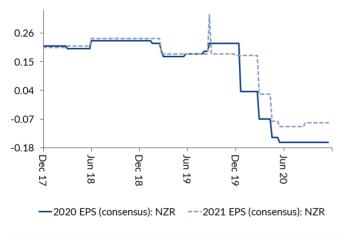
Source: NZX, Forsyth Barr analysis, NOTE: based on SPH notices only

Figure 8. International valuation comparisons

Company	Code	Price	Mkt Cap	PE		EV/EBITDA		EV/EBIT		Cash Yld
(metrics re-weighted to reflect NZR's bal	(m)	2020E	2021E	2020E	2021E	2020E	2021E	2021E		
Refining NZ	NZR NZ	NZ\$0.58	NZ\$181	<0x	<0x	11.1x	7.3x	<0x	<0x	0.0%
FORMOSA PETROCHEMICAL CORP	6505 TT	TWD93.30	TWD888,772	>50x	26.6x	53.8x	16.3x	>75x	22.0x	2.5%
IDEMITSU KOSAN CO	5019 JP	¥2205.00	¥656,792	12.0x	12.0x	12.0x	7.7x	<0x	19.3x	5.5%
SK INNOVATION CO	096770 KS	KRW156500.00	KRW14,470,861	<0x	>50x	<0x	11.1x	<0x	34.8x	1.5%
S-OIL CORP	010950 KS	KRW67200.00	KRW7,565,564	<0x	16.5x	<0x	9.9x	<0x	18.0x	1.8%
			Compco Average:	12.0x	18.4x	32.9x	11.3x	n/a	23.5x	2.8%
EV = Current Market Cap + Actual Net D	NZR Relative:	n/a	n/a	-66%	-35%	n/a	n/a	-100%		

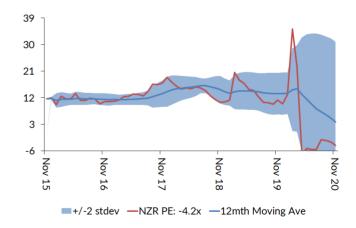
 $Source: *Forsyth \ Barr \ analysis, Bloomberg \ Consensus, Compcometrics \ re-weighted \ to \ reflect \ headline \ (NZR) \ companies \ fiscal \ year \ end$

Figure 9. Consensus EPS momentum (NZ\$)



Source: Forsyth Barr analysis

Figure 10. One year forward PE (x)



Source: Forsyth Barr analysis

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