

# Refining NZ

## Refinery Conversion Still in the Pipeline

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### NEUTRAL

Refining NZ's (NZR) Strategic Review update upstaged its FY20 result, with news that BP has signed "in principle" terms, including import terminal fees, an unexpected bonus. Whilst NZR still has to agree terms with Z Energy (ZEL) and Mobil, it is an encouraging sign for shareholders and provides increased clarity on NZR's future path. That said, whilst our valuation range has narrowed, it is still relatively wide between NZ\$0.35 and NZ\$1.19/share. We retain our NEUTRAL rating.

NZX Code	NZR	Financials: Dec/	20A	21E	22E	23E	Valuation (x)	20A	21E	22E	23E
Share price	NZ\$0.49	NPAT* (NZ\$m)	-37.2	-24.8	-26.5	-10.3	PE	n/a	n/a	n/a	n/a
Target price	NZ\$0.80	EPS* (NZc)	-11.9	-7.9	-8.5	-3.3	EV/EBIT	n/a	n/a	n/a	n/a
Risk rating	High	EPS growth* (%)	n/a	33.2	-6.5	61.0	EV/EBITDA	7.7	6.2	6.4	6.0
Issued shares	312.6m	DPS (NZc)	0.0	0.0	0.0	0.0	Price / NTA	0.3	0.3	n/a	n/a
Market cap	NZ\$153m	Imputation (%)	100	100	100	100	Cash div yld (%)	0.0	0.0	0.0	0.0
Avg daily turnover	495.9k (NZ\$344k)	*Based on normalised profits					Gross div yld (%)	0.0	0.0	0.0	0.0

### Terminal conversion discussions ongoing, but progress being made

NZR's announcement that it has agreed "in principle" terms with BP to convert to an import terminal, including terminal and pipeline fees was the most positive news. Negotiations are ongoing with NZR's other key customers, ZEL and Mobil. We believe the announcement that BP has agreed terms will place additional pressure on ZEL and Mobil to complete negotiations, enabling all parties to move forward. If ZEL and Mobil agree terms before 31 March 2021, NZR should be able to convert to a terminal by mid-to-late 2022. Based on the BP terms, NZR has indicated import terminal revenue of ~NZ\$100m is achievable, with cash earnings before interest and tax between NZ\$65m and NZ\$70m. The NZ\$100m revenue figure is likely to be the maximum achievable, in our view, as ZEL and Mobil are unlikely to sign up to more favourable terms and it assumes a recovery in fuel volumes to ~90% of 2019 levels, which requires ~80% of jet fuel demand to have returned (vs. the current 30% to 40%).

### Thinking about value — life as a terminal, with upside options

Whilst we have more clarity and our valuation range has narrowed to NZ\$0.35–NZ\$1.19/share (from NZ\$0.05–NZ\$1.60/share following the 1H20 result), there is still a high degree of uncertainty. Several issues remain unresolved/unknown including terminal and infrastructure fees, timing and scale of jet volume recovery and investor appetite for an asset such as NZR. If NZR executes well, there is value significantly above the current share price. However, given debt levels and the significant costs of conversion (estimated at ~NZ\$200m), the valuation is very sensitive to small assumption changes.

On the positive side, there is value upside from crystallising and subsequently using tax losses from closing the refinery of ~NZ\$350m, sale or alternative use of surplus land and third party use of the import terminal/pipeline.

### FY20 result a remarkable performance given the circumstances — FY21 expected to be more of the same

In a very difficult year, NZR has performed extremely well. Few (including us) would have given NZR much chance of reducing debt levels after the COVID-19 pandemic hit. The ~NZ\$10m reduction in debt levels to NZ\$230m is probably NZR's best achievement this year and is a testament to the business model and NZR's ability to quickly adapt to the new environment. Looking ahead, we expect NZR to be able to continue to operate on a cash neutral basis, until refinery operations cease, most likely in 2022. Our revised FY23 forecasts assume NZR has successfully converted to an import terminal.

Refining NZ (NZR)

Priced as at 17 Feb 2021 (NZ\$)

0.49

**12-month target price (NZ\$)\***

0.80

Expected share price return	63.3%
Net dividend yield	0.0%
Estimated 12-month return	63.3%

**Spot valuations (NZ\$)**

1. Scenario valuation	0.77
2. n/a	n/a
3. n/a	n/a

**Key WACC assumptions**

Risk free rate	2.30%
Equity beta	1.09
WACC	7.4%
Terminal growth	0.0%

**DCF valuation summary (NZ\$m)**

Total firm value	676
(Net debt)/cash	(232)
Less: Capitalised operating leases	
Value of equity	445

Profit and Loss Account (NZ\$m)	2019A	2020A	2021E	2022E	2023E
Sales revenue	348	246	233	238	92
<b>Normalised EBITDA</b>	<b>118</b>	<b>50</b>	<b>62</b>	<b>61</b>	<b>64</b>
Depreciation and amortisation	(100)	(87)	(87)	(87)	(11)
<b>Normalised EBIT</b>	<b>18</b>	<b>(37)</b>	<b>(25)</b>	<b>(26)</b>	<b>(2)</b>
Net interest	(13)	(11)	(10)	(11)	(12)
Associate income	0	0	0	0	0
Tax	(1)	10	10	10	4
Minority interests	0	0	0	0	0
<b>Normalised NPAT</b>	<b>4</b>	<b>(37)</b>	<b>(25)</b>	<b>(26)</b>	<b>(10)</b>
Abnormals/other	0	(161)	0	0	0
<b>Reported NPAT</b>	<b>4</b>	<b>(198)</b>	<b>(25)</b>	<b>(26)</b>	<b>(10)</b>
Normalised EPS (cps)	1.3	(11.9)	(7.9)	(8.5)	(3.3)
DPS (cps)	2.0	0	0	0	0

Growth Rates	2019A	2020A	2021A	2022A	2023A
Revenue (%)	-3.9	-29.5	-5.3	2.1	-61.2
EBITDA (%)	-22.5	-57.4	23.9	-2.2	5.5
EBIT (%)	-67.1	n/a	n/a	n/a	n/a
Normalised NPAT (%)	-85.9	n/a	n/a	n/a	n/a
Normalised EPS (%)	-85.9	n/a	n/a	n/a	n/a
Ordinary DPS (%)	-73.3	-100.0	n/a	n/a	n/a

Cash Flow (NZ\$m)	2019A	2020A	2021E	2022E	2023E
<b>EBITDA</b>	<b>118</b>	<b>50</b>	<b>62</b>	<b>61</b>	<b>64</b>
Working capital change	23	(19)	4	13	(23)
Interest & tax paid	(19)	(5)	(10)	(11)	(12)
Other	(6)	6	0	0	(55)
<b>Operating cash flow</b>	<b>117</b>	<b>32</b>	<b>56</b>	<b>63</b>	<b>(26)</b>
Capital expenditure	(78)	(34)	(59)	(123)	(8)
(Acquisitions)/divestments	0	0	0	0	0
Other	0	12	0	0	0
<b>Funding available/(required)</b>	<b>39</b>	<b>10</b>	<b>(3)</b>	<b>(61)</b>	<b>(34)</b>
Dividends paid	(20)	0	0	0	0
Equity raised/(returned)	(0)	0	0	0	0
<b>(Increase)/decrease in net debt</b>	<b>19</b>	<b>10</b>	<b>(3)</b>	<b>(61)</b>	<b>(34)</b>

Balance Sheet (NZ\$m)	2019A	2020A	2021E	2022E	2023E
Working capital	(5)	30	36	115	142
Fixed assets	1,171	887	859	245	241
Intangibles	22	10	10	579	579
Right of use asset	0	0	0	0	0
Other assets	4	4	4	4	4
<b>Total funds employed</b>	<b>1,193</b>	<b>931</b>	<b>909</b>	<b>943</b>	<b>966</b>
Net debt/(cash)	242	232	234	295	328
Lease liability	0	0	0	0	0
Other liabilities	191	131	131	131	131
Shareholder's funds	760	567	542	515	505
Minority interests	0	0	1	1	1
<b>Total funding sources</b>	<b>1,193</b>	<b>931</b>	<b>909</b>	<b>943</b>	<b>966</b>

Valuation Ratios	2019A	2020A	2021E	2022E	2023E
EV/EBITDA (x)	3.4	7.7	6.2	6.4	6.0
EV/EBIT (x)	22.1	n/a	n/a	n/a	n/a
PE (x)	36.8	n/a	n/a	n/a	n/a
Price/NTA (x)	0.2	0.3	0.3	n/a	n/a
Free cash flow yield (%)	25.7	-1.5	-1.8	-39.5	-21.9
Net dividend yield (%)	4.1	0.0	0.0	0.0	0.0
Gross dividend yield (%)	5.7	0.0	0.0	0.0	0.0

Capital Structure	2019A	2020A	2021E	2022E	2023E
Interest cover EBIT (x)	1.4	n/a	n/a	n/a	n/a
Interest cover EBITDA (x)	8.8	4.6	6.3	5.6	5.2
Net debt/ND+E (%)	24.1	29.0	30.2	36.4	39.4
Net debt/EBITDA (x)	2.0	4.6	3.8	4.8	5.1

Key Ratios	2019A	2020A	2021E	2022E	2023E
Return on assets (%)	1.3	-3.2	-2.2	-2.2	-0.2
Return on equity (%)	0.5	-6.6	-4.6	-5.1	-2.0
Return on funds employed (%)	2.1	-2.9	-1.6	-1.5	7.3
EBITDA margin (%)	33.9	20.5	26.8	25.7	69.9
EBIT margin (%)	5.3	-15.0	-10.6	-10.8	-2.1
Capex to sales (%)	22.3	13.8	25.3	51.8	8.5
Capex to depreciation (%)	78	39	68	142	69
Imputation (%)	100	100	100	100	100
Pay-out ratio (%)	150	0	0	0	0

Operating Performance	2019A	2020A	2021E	2022E	2023E
<b>Revenue Breakdown (NZ\$m)</b>					
Processing fee revenue	242	142	141	143	0
Natural gas recovery	40	30	31	34	0
Other refining revenue	16	18	11	11	0
Pipeline revenue	36	29	33	34	86
Other revenue	14	27	17	15	7
<b>Total revenue</b>	<b>348</b>	<b>246</b>	<b>233</b>	<b>238</b>	<b>92</b>

<b>Processing fee drivers</b>					
Refining margin (USD/barrel)	5.3	1.6	3.3	4.3	#DIV/0!
NZDUSD	0.66	0.67	0.72	0.72	#DIV/0!
Throughput (mbbls)	42.7	29.9	31.5	34.0	0
Refining margin (NZD/barrel)	5.7	1.7	3.1	4.2	4.3

Fee floor (estimated) (USD/barrel)	3.0	4.5	4.6	4.3	#DIV/0!
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<b>Operating cost breakdown (NZ\$m)</b>					
Process materials and utilities	59	52	50	52	0
Natural gas costs	40	30	31	34	0
Materials & contractor payments	31	20	19	20	0
Wages & salaries	61	62	46	47	16
Admin & other expenses	39	32	24	23	11
<b>Total expenses</b>	<b>230</b>	<b>195</b>	<b>170</b>	<b>177</b>	<b>28</b>

\* Forsyth Barr target prices reflect valuation rolled forward at cost of equity less the next 12-months dividend

## Strategic review – key points

**Figure 1. Key strategic review points to note**

Key point	FB comment
Import terminal revenue of ~NZ\$100m per annum. The fee structure is part fixed "access fee" and part variable, volume based fee.	This is based on the BP import terminal price and assumes ZEL and Mobil sign up on similar terms. It also assumes the import terminal and pipeline operate near the ~3b litres capacity. We view this as the maximum likely revenue as ZEL and Mobil are unlikely to sign on terms more favourable than BP (i.e. BP has likely set the benchmark) and it assumes a recovery in jet volumes. We expect the fixed access fee will be targeted to cover fixed costs.
Pipeline likely to have third party access.	Given the fuel price inquiry outcomes, this is a sensible move. Gull is the only other importer of fuel into the country, and the only other likely user of the import terminal and pipeline. Any third party revenue is likely to be upside for NZR.
Conversion costs are NZ\$200, payable over 4 to 5 years.	This is an all-inclusive cost, covering both opex and capex. NZR has indicated ~NZ\$100m will be payable prior to terminal conversion, with post-terminal conversion costs also likely to total ~NZ\$100m. We believe the pre-conversion costs are likely to be capex in nature, with post-conversion costs, including decommissioning and site decontamination costs opex in nature.
Demolition costs of NZ\$50m to NZ\$60m	Timing and amount of demolition required will depend on whether the site can be re-purposed. e.g. NZR has indicated ~80% of current tank storage capacity will not be required for terminal operation. However, if these tanks are used for security of supply purposes, demolition needs are reduced.
Refinery closure will crystallise ~NZ\$350m of tax losses	When the refinery closes, NZR will write-off its tax book value, which stands at ~NZ\$350m (much of which will relate to the Te Mahi Hou project). At a tax rate of 28%, that equates to NZ\$98m of lower tax. Current NZ tax rules require 49% continuity of ownership, which could be problematic given the fuel customers own 46.5% between them. However, mooted tax rule changes to a business continuity test should be favourable. That said, our initial analysis suggests it could take 10+ years to fully utilise the tax loss balance.
Terminal operation is mid-2022 at the earliest	NZR's indicative timeline is that after ZEL and Mobil have agreed terms, it will take another 4–6 months to get final Board approval. Assuming ZEL and Mobil agree terms by 31 March 2021, final approval will not be made until July–September 2021. It will then take 9–12 months to complete the terminal conversion (April–September 2022).
NZR's current working assumption is that no additional equity is required	Our initial analysis concurs with NZR's view. That said, our analysis suggests debt levels top out between NZ\$310m and NZ\$350m, leaving debt headroom between NZ\$50m and NZ\$90m. In addition, with NZR's business model changing materially, it is unclear what NZR's debt funders will accept.
Terminal conversion require non-customer shareholder approval	This is a key point. The price agreed between NZR and its customers must ensure NZR is better off financially as an infrastructure provider than if it stays as a refinery.

Source: Forsyth Barr analysis

**Figure 2. Possible import terminal value**

	Low NZ\$m	High NZ\$m	FB comment
Revenue	90	100	Based on NZR guidance. We view NZ\$100m as the maximum. ZEL & Mobil are unlikely to pay more than BP
Operating costs	(30)	(27)	Based on NZR guidance. Capex estimated to be NZ\$8m to NZ\$10m
<b>EBITDA</b>	<b>60</b>	<b>73</b>	
EV/EBITDA multiple	9.0	11.0	ZEL is trading in ~9.0x FY22 EBITDA is the bottom of the range. Chorus 9.5x and Vector 12.2x
<b>EV</b>	<b>540</b>	<b>803</b>	
less debt & conversion costs	(430)	(430)	December 2020 debt of NZ\$230m, plus NZ\$200m of conversion costs, per NZR guidance. We assume the refinery operations at break-even until it converts to a terminal
<b>Mkt cap.</b>	<b>110</b>	<b>373</b>	
<b>Value/share (NZ\$)</b>	<b>\$0.35</b>	<b>\$1.19</b>	

Source: Forsyth Barr analysis

In addition to NZR's operational value as an import terminal, there is possible upside from:

- Sales/use of surplus land
- Alternative use of the site. e.g. NZR will have surplus tank storage, which the government may use to improve security of supply
- Tax losses. As noted above, NZR will likely crystallise tax losses of NZ\$350m, in addition to the NZ\$55m as at 31 December 2020 and tax losses we expect NZR will incur in the coming two years. We estimate the future tax benefit on the balance will top out at NZ\$122m (the equivalent of NZ\$440m pre-tax losses), but that it will take until ~2035 before these losses are fully utilised. The value is therefore diluted and largely offset by demolition costs (not included in the Fig.2 analysis)
- Third party use of the infrastructure assets

## FY20 result summary and commentary

Figure 3. FY20 result summary

	FY19	FY20	%	FB	Diff	
	\$m	\$m	Chg	\$m	\$m	Commentary
Processing fees	242	142	-41%	142	0	Fees equalled the fee floor, with customers topping up processing fees +NZ\$90m
Pipeline revenue	36	29	-20%	34	(4)	Lower throughput reduced pipeline revenue — mainly due to lower jet volumes
Other income	70	75	7%	59	15	Other income included \$5m from COVID-19 wage subsidy and asset sale gain (NZ\$6m)
<b>Total Revenue</b>	<b>348</b>	<b>246</b>	<b>-29%</b>	<b>235</b>	<b>11</b>	
Nat. gas pass through costs	(40)	(30)	-24%	(30)	0	Reduced use of the refinery, lowered gas use
Operating costs	(191)	(165)	-13%	(168)	2	Strong operating cost savings ensured NZR could operate on a cash neutral basis
<b>EBITDA</b>	<b>118</b>	<b>50</b>	<b>-57%</b>	<b>37</b>	<b>14</b>	
Depreciation/amortisation	(100)	(87)	-13%	(88)	0	
<b>EBIT</b>	<b>18</b>	<b>(37)</b>		<b>(51)</b>	<b>14</b>	
Net interest	(13)	(11)	-19%	(13)	2	
Other items	-	(224)		(219)	(5)	Significant asset impairment, most of which took place at the 1H20 result
<b>Pre-tax profit</b>	<b>5</b>	<b>(271)</b>		<b>(283)</b>	<b>11</b>	
Tax expense	(1)	73		78	(5)	
<b>Profit after tax</b>	<b>4</b>	<b>(198)</b>		<b>(205)</b>	<b>6</b>	
<b>Normalised NPAT</b>	<b>4</b>	<b>(37)</b>		<b>(47)</b>	<b>10</b>	
Earnings per share (NZc)	1.3	(11.9)		(15.1)	3.2	
FY Dividend per share (NZc)	2.0	0.0		0.0	0.0	
Throughput (m barrels)	42.7	29.9	-30%			NZR pulled back operations to meet demand requirements
GRM (US\$/barrel)	\$5.34	\$1.63	-69%			The gross refining margin was well below fee floor levels
NZDUSD fx rate	0.660	0.666	1%			

Source: NZR, Forsyth Barr analysis

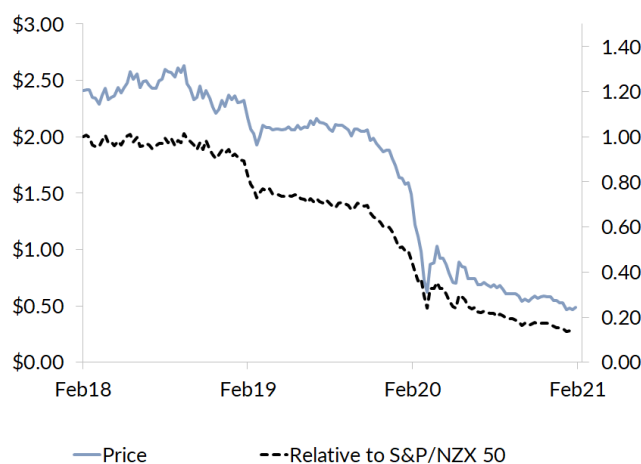
## Forecast changes

We now assume NZR converts to a terminal, with import terminal operations commencing 1 January 2023. We assume all conversion costs in FY21 (NZ\$10m) and FY22 (NZ\$90m) are capex. Post-conversion costs are treated as opex and total NZ\$55m in FY23.

Figure 4. Forecast changes

NZ\$m	FY21	FY21		FY22	FY22		FY23	FY23	
	Old	New	% Chg	Old	New	% Chg	Old	New	% Chg
Processing fees	142	141	0%	158	143	-9%	172	-	-100%
Natural gas recovery	31	31	-1%	32	34	7%	35	-	-100%
Pipeline fees and other income	64	60	-6%	67	60	-10%	73	92	26%
<b>Total Revenue</b>	<b>237</b>	<b>233</b>	<b>-2%</b>	<b>257</b>	<b>238</b>	<b>-8%</b>	<b>280</b>	<b>92</b>	<b>-67%</b>
Natural gas pass through costs	(31)	(31)	-1%	(32)	(34)	7%	(35)	-	-100%
Operating costs	(148)	(139)	-6%	(142)	(142)	1%	(146)	(28)	-81%
<b>EBITDA</b>	<b>58</b>	<b>62</b>	<b>8%</b>	<b>83</b>	<b>61</b>	<b>-27%</b>	<b>100</b>	<b>64</b>	<b>-35%</b>
Depreciation/amortisation	(87)	(87)	0%	(87)	(87)	0%	(88)	(11)	-87%
<b>EBIT</b>	<b>(29)</b>	<b>(25)</b>	<b>-16%</b>	<b>(4)</b>	<b>(26)</b>	<b>581%</b>	<b>11</b>	<b>53</b>	<b>374%</b>
Other items	-	-		-	-		-	(55)	
Net interest	(11)	(10)	-9%	(10)	(11)	6%	(9)	(12)	41%
<b>Pre-tax profit</b>	<b>(40)</b>	<b>(35)</b>	<b>-14%</b>	<b>(14)</b>	<b>(37)</b>	<b>160%</b>	<b>2</b>	<b>(14)</b>	
Tax expense	11	10	-14%	4	10	160%	(1)	4	
<b>Profit after tax</b>	<b>(29)</b>	<b>(25)</b>	<b>-14%</b>	<b>(10)</b>	<b>(26)</b>	<b>160%</b>	<b>2</b>	<b>(10)</b>	
Earnings per share (NZc)	(9.3)	(7.9)	-14%	(3.3)	(8.5)	160%	0.5	(3.3)	
Dividend per share (NZc)	0.0	0.0		0.0	0.0		0.0	0.0	
Barrels Processed (000)	31,000	31,500	2%	31,000	34,000	10%	33,000	0	-100%
Gross Refining Margin (US\$/barrel)	\$3.23	\$3.25	1%	\$4.59	\$4.30	-6%	\$5.02	n/a	
NZDUSD	0.670	0.720	7%	0.675	0.720	7%	0.675	0.690	2%
Capital expenditure (\$m)	(49)	(59)	20%	(55)	(123)	123%	(36)	(8)	-78%

Source: Forsyth Barr analysis

**Figure 5. Price performance**


Source: Forsyth Barr analysis

**Figure 6. Substantial shareholders**

Shareholder	Latest Holding
Mobil Oil NZ Limited	17.2%
Z Energy Holdings Limited	15.4%
BP	10.1%
ACC	9.6%

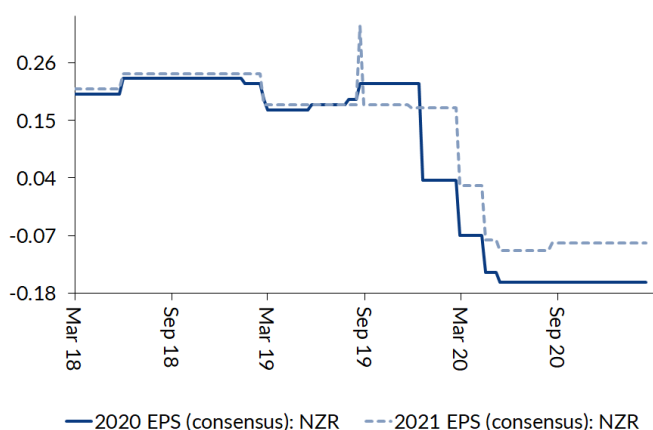
Source: NZX, Forsyth Barr analysis, NOTE: based on SPH notices only

**Figure 7. International valuation comparisons**

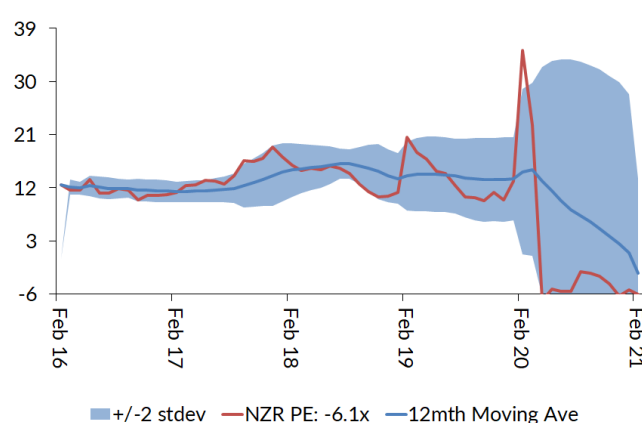
Company	Code	Price	Mkt Cap (m)	PE 2021E	PE 2022E	EV/EBITDA 2021E	EV/EBITDA 2022E	EV/EBIT 2021E	EV/EBIT 2022E	Cash Yld 2022E
(metrics re-weighted to reflect NZR's balance date - December)										
Refining NZ	NZR NZ	NZ\$0.49	NZ\$153	<0x	<0x	6.2x	6.3x	<0x	<0x	0.0%
FORMOSA PETROCHEMICAL CORP	6505 TT	TWD91.90	TWD875,436	25.3x	n/a	15.3x	n/a	23.0x	n/a	n/a
IDEMITSU KOSAN CO	5019 JP	¥2755.00	¥820,617	>50x	8.2x	8.9x	7.4x	22.9x	15.3x	4.7%
SK INNOVATION CO	096770 KS	KRW284500.00	KRW26,306,453	>50x	41.6x	16.0x	11.6x	54.4x	26.4x	0.9%
S-OIL CORP	010950 KS	KRW88200.00	KRW9,929,802	22.6x	17.5x	12.2x	10.7x	22.2x	16.5x	1.7%
Compco Average:				24.0x	22.4x	13.1x	9.9x	30.6x	19.4x	2.4%
NZR Relative:				n/a	n/a	-53%	-36%	n/a	n/a	-100%

EV = Current Market Cap + Actual Net Debt

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

**Figure 8. Consensus EPS momentum (NZ\$)**


Source: Forsyth Barr analysis

**Figure 9. One year forward PE (x)**


Source: Forsyth Barr analysis

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