FORSYTH BARR

Refining NZ

NEUTRAL

Capitalising Lower Capex

We are upgrading Refining NZ (NZR) to NEUTRAL following an upgrade to FY19 NPAT (+$7m to $43m), the near-term outlook improving as the shipping sector gets closer to implementing Marpol, and due to NZR guiding to lower capex than anticipated. Our target price has increased +33cps to $2.15. NZR's 1H19 NPAT result was a small loss as difficult refining markets weighed on the gross refining margin (GRM) and therefore revenue.

What's changed?

- **Earnings:** FY19 NPAT increased +$7m to $43m
- **Target Price:** Target price lifted +33cps to $2.15
- **Rating:** Upgraded to NEUTRAL from UNDERPERFORM

Soft 1H19 result was expected

NZR reported 1H19 EBITDA of $54m and NPAT of -$4m, which is slightly below our forecast (~-$3m). The soft result was a function of low Singapore refining margins which averaged US$0.20/barrel in 1H19 vs. US$3.23/barrel in the pcp. The positive aspects of 1H19 were solid throughput and a lower NZDUSD fx rate. The 1H19 dividend (fully imputed) is 2cps, -0.5cps lower than our forecast. Debt levels remain elevated at $261m and we expect NZR will be looking to reduce debt levels in coming months.

Capex guidance lower than anticipated, although we remain wary

A key feature of the result was NZR releasing long-term capex guidance of ~$64m per annum for the period 2023 to 2033. This is -$21m lower than our old capex forecast. Given historic capex has averaged more than $110m per annum, and capex for the next three years is expected to be elevated (averaging ~$90m), we have chosen to err on the side of caution and lowered our long-term capex assumption -$10m to $75m. Nevertheless, with NZR having extremely high operating leverage, that results in a ~+30cps increase in our DCF valuation and has been one of the key factors behind our target price increase (+33cps to $2.15) and our positive rating change.

Near-term outlook positive as shipping fuel specification changes get closer

Also factored into our thinking is the Marpol shipping fuel specification changes, requiring low sulphur fuel in ships from 1 January 2020. GRM forecasts continue to indicate NZR should be a beneficiary of Marpol with a temporary increase in its GRM as an expected lift in the diesel crack spread has a greater impact than the expected fall in high sulphur fuel oil margins.

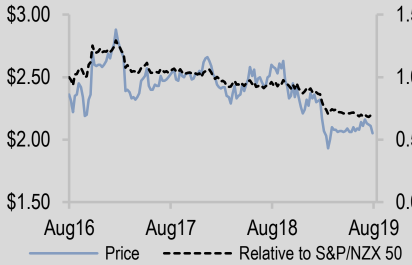
Whilst we have left our GRM assumptions unchanged (2H19 GRM of US$7.75/barrel), we have lifted our throughput assumption +400k and lowered our NZDUSD fx assumption such that our FY19 NPAT forecast has increased +$7m to $43m. We have also increased our FY19 dividend forecast +1.5cps to 9.0cps.

Investment View

Our rating is NEUTRAL. NZR near-term outlook is looking more positive with shipping fuel specification changes likely to be positive in the coming months. However, we see medium-term uncertainties, particularly demand risk as the global economy slows which may weigh on the GRM.

NZX Code	NZR
Share price	NZ$2.05
Target price	NZ$2.15
Risk rating	High
Issued shares	312.6m
Market cap	NZ$641m
Average daily turnover	221.2k (NZ$502k)

Share Price Performance



Financials: December	18A	19E	20E	21E
NPAT* (NZ$m)	29.6	43.5	67.2	53.0
EPS* (NZc)	9.5	13.9	21.5	17.0
EPS growth* (%)	-62.3	46.9	54.6	-21.2
DPS (NZc)	7.5	9.0	12.0	12.0
Imputation (%)	100	100	100	100

Valuation (x)	18A	19E	20E	21E
EV/EBITDA	5.6	5.0	4.2	4.6
EV/EBIT	15.3	12.2	8.5	10.7
PE	21.6	14.7	9.5	12.1
Price / NTA	0.8	0.8	0.8	0.8
Cash dividend yield (%)	3.7	4.4	5.9	5.9
Gross dividend yield (%)	5.1	6.1	8.1	8.1

*Historic and forecast numbers based on underlying profits

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Refining NZ (NZR)	Priced as at 21 Aug 2019: NZ$2.05		December year end

Forsyth Barr valuation

Valuation methodology	Blend of spot valuations, weighted to multiples		
12-month target price (NZ$)*	**2.15**	**Spot valuations (NZ$)**	
Expected share price return	4.9%	1. DCF	2.06
Net dividend yield	5.4%	2. Market multiples	2.10
Estimated 12-month return	10.2%	3. n/a	n/a
Key WACC assumptions		**DCF valuation summary (NZ$m)**	
Risk free rate	2.00%	Total firm value	916
Equity beta	1.00	(Net debt)/cash	(274)
WACC	8.5%	Value of equity	642
Terminal growth	0.0%	Shares (m)	313

Profit and Loss Account (NZ$m)	2017A	2018A	2019E	2020E	2021E
Sales revenue	414.6	362.5	408.0	431.3	416.6
Normalised EBITDA	**220.3**	**152.6**	**177.2**	**206.6**	**188.5**
Depreciation and amortisation	(96.1)	(97.1)	(104.5)	(104.0)	(107.0)
Normalised EBIT	**124.2**	**55.6**	**72.7**	**102.6**	**81.5**
Net interest	(13.7)	(13.8)	(12.2)	(9.2)	(7.9)
Associate income	-	-	-	-	-
Tax	(31.9)	(12.2)	(17.0)	(26.1)	(20.6)
Minority interests	-	-	-	-	-
Normalised NPAT	**78.5**	**29.6**	**43.5**	**67.2**	**53.0**
Abnormals/other	-	-	-	-	-
Reported NPAT	**78.5**	**29.6**	**43.5**	**67.2**	**53.0**
Normalised EPS (cps)	25.1	9.5	13.9	21.5	17.0
DPS (cps)	18.0	7.5	9.0	12.0	12.0

Growth Rates	2017A	2018A	2019E	2020E	2021E
Revenue (%)	17.1	-12.6	12.6	5.7	-3.4
EBITDA (%)	31.7	-30.7	16.1	16.6	-8.8
EBIT (%)	55.2	-55.3	30.8	41.1	-20.6
Normalised NPAT (%)	66.5	-62.3	46.9	54.6	-21.2
Normalised EPS (%)	66.5	-62.3	46.9	54.6	-21.2
DPS (%)	100.0	-58.3	20.0	33.3	0.0

Cash Flow (NZ$m)	2017A	2018A	2019E	2020E	2021E
EBITDA	**220.3**	**152.6**	**177.2**	**206.6**	**188.5**
Working capital change	22.5	(38.8)	(13.6)	4.0	0.2
Interest & tax paid	(36.9)	(25.2)	(38.6)	(35.4)	(28.5)
Other	(8.0)	16.0	11.4	-	-
Operating cash flow	**198.0**	**104.6**	**136.5**	**175.3**	**160.2**
Capital expenditure	(94.6)	(162.3)	(79.6)	(100.3)	(93.6)
(Acquisitions)/divestments	-	-	-	-	-
Other	(0.4)	-	-	-	-
Funding available/(required)	**103.1**	**(57.7)**	**56.9**	**75.0**	**66.6**
Dividends paid	(37.5)	(46.9)	(20.3)	(34.4)	(37.5)
Equity raised/(returned)	(0.7)	(0.3)	(0.3)	-	-
Increase/(decrease) in net debt	**(64.8)**	**104.9**	**(36.3)**	**(40.6)**	**(29.1)**

Balance Sheet (NZ$m)	2017A	2018A	2019E	2020E	2021E
Working capital	(17.0)	19.5	32.1	28.1	27.9
Fixed assets	1,128.9	1,191.9	1,168.7	1,165.0	1,151.6
Intangibles	8.1	14.3	17.9	17.9	17.9
Other assets	-	0.0	0.1	0.1	0.1
Total funds employed	**1,120.1**	**1,225.7**	**1,218.8**	**1,211.0**	**1,197.4**
Net debt/(cash)	155.1	260.3	229.2	188.6	159.4
Other non current liabilities	172.2	195.8	203.8	203.8	203.8
Shareholder's funds	792.3	769.2	785.4	818.2	832.7
Minority interests	0.4	0.4	0.4	0.4	1.4
Total funding sources	**1,120.1**	**1,225.7**	**1,218.8**	**1,211.0**	**1,197.4**

Valuation Ratios	2017A	2018A	2019E	2020E	2021E
EV/EBITDA (x)	3.8	5.6	5.0	4.2	4.6
EV/EBIT (x)	6.7	15.3	12.2	8.5	10.7
PE (x)	8.2	21.6	14.7	9.5	12.1
Price/NTA (x)	0.8	0.8	0.8	0.8	0.8
Free cash flow yield (%)	16.1	-9.0	8.9	11.7	10.4
Net dividend yield (%)	8.8	3.7	4.4	5.9	5.9
Gross dividend yield (%)	12.2	5.1	6.1	8.1	8.1
Imputation (%)	100	100	100	100	100
Pay-out ratio (%)	72	79	65	56	71

Capital Structure	2017A	2018A	2019E	2020E	2021E
Interest cover EBIT (x)	9.0	4.0	5.9	11.1	10.4
Interest cover EBITDA (x)	16.0	11.1	14.5	22.4	24.0
Net debt/ND+E (%)	16.4	25.3	22.6	18.7	16.1
Net debt/EBITDA (x)	0.7	1.7	1.3	0.9	0.8

Key Ratios	2017A	2018A	2019E	2020E	2021E
Return on assets (%)	9.3	4.0	5.2	7.4	5.9
Return on equity (%)	9.9	3.9	5.5	8.2	6.4
Return on funds employed (%)	10.1	4.6	5.8	7.8	6.4
EBITDA margin (%)	53.1	42.1	43.4	47.9	45.2
EBIT margin (%)	30.0	15.3	17.8	23.8	19.6
Capex to sales (%)	22.8	44.8	19.5	23.3	22.5
Capex to depreciation (%)	98	167	76	96	87

Operating Performance	2017A	2018A	2019E	2020E	2021E
Revenue Breakdown (NZ$m)					
Processing fee revenue	327.4	258.9	302.6	326.5	309.9
Natural gas recovery	24.4	32.0	39.8	40.6	41.4
Other refining revenue	11.7	13.6	14.8	13.5	13.8
Pipeline revenue	37.8	44.1	37.0	37.8	38.5
Other revenue	13.3	13.9	13.9	12.9	13.0
Total revenue	**414.6**	**362.5**	**408.0**	**431.3**	**416.6**
Processing fee revenue growth (%)	18.4	-20.9	16.9	7.9	-5.1
Total revenue growth (%)	17.1	-12.6	12.6	5.7	-3.4
Processing fee drivers					
Refining margin (USD/barrel)	8.0	6.2	6.6	7.4	7.0
NZDUSD	0.71	0.69	0.66	0.68	0.68
Throughput (mbls)	41.7	40.4	43.4	43.0	43.0
Refining margin (NZD/barrel)	7.9	6.2	6.9	7.6	7.2
Margin cap (USD/barrel)	9.0	9.0	9.0	9.0	9.0
Fee floor (estimated) (USD/barrel)	3.2	3.3	3.0	3.1	3.2
Operating cost breakdown (NZ$m)					
Process materials and utilities	45.9	49.2	59.6	54.1	54.4
Natural gas costs	24.4	32.0	39.8	40.6	41.4
Materials & contractor payments	31.0	29.0	31.1	31.5	31.8
Wages & salaries	59.0	61.3	62.3	63.6	64.9
Admin & other expenses	33.8	38.4	38.0	35.0	35.7
Total expenses	**194.3**	**209.8**	**230.8**	**224.7**	**228.1**

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

1H19 result review

Figure 1. 1H19 result summary

	1H18 $m	1H19 $m	% Chg	FB $m	Diff $m	Commentary
Processing fees	97	117	20%	117	0	Lift vs. pcp due to higher GRM. The pcp included a large outage during 2Q18
Pipeline revenue	27	22	-19%	24	(2)	Drop in revenue as less throughput/terminal fees due to outage in pcp
Other income	24	33	35%	27	6	Increase due to pipeline related insurance pay-out and higher pass through costs (up +$6m)
Total Revenue	**148**	**172**	**16%**	**168**	**4**	
Pass through costs	(14)	(20)	40%	(18)	(2)	No refinery outage in 1H19 increased gas usage
Operating costs	(85)	(98)	16%	(93)	(5)	Higher opex from higher throughput (+$4m), higher electricity costs (+$2m) and one-offs (+$4m)
EBITDA	**49**	**54**	**9%**	**57**	**(3)**	
Depreciation	(46)	(52)	13%	(52)	(1)	Increase following maintenance outage increasing the capital base
EBIT	**3**	**2**	**-41%**	**5**	**(3)**	
Net interest	(7)	(7)	3%	(7)	0	
Pre-tax profit	**(3)**	**(5)**		**(2)**	**(3)**	
Tax expense	0	1		1	1	
Profit after tax	**(3)**	**(4)**		**(1)**	**(2)**	
EPS (cents)	(0.9)	(1.1)	24%	(0.5)	(0.7)	
DPS (cents)	3.0	2.0	-33%	2.5	(0.5)	Slightly lower interim dividend following slightly lower than expected earnings

Source: NZR, Forsyth Barr analysis

Key points from 1H19 result:

- EBITDA increased +9% on pcp to $54m, although this was slightly below our forecasts, with higher operating costs being the main issue
- A +20% increase in processing fees was mainly a function of no maintenance outage as the underlying Singapore Complex Margin in 1H19 (US$0.20/barrel) was weaker than 1H18 (US$3.23/barrel). Throughput was +19% higher in 1H19 vs. 1H18
- Operating costs increased due to a combination of factors noted in the table above
- NPAT of -$4m was -$1m lower than the pcp and -$3m lower than our forecast — a miss, but not a material one
- NZR declared an interim dividend (fully imputed) of 2.0cps, -0.5cps lower than our forecast

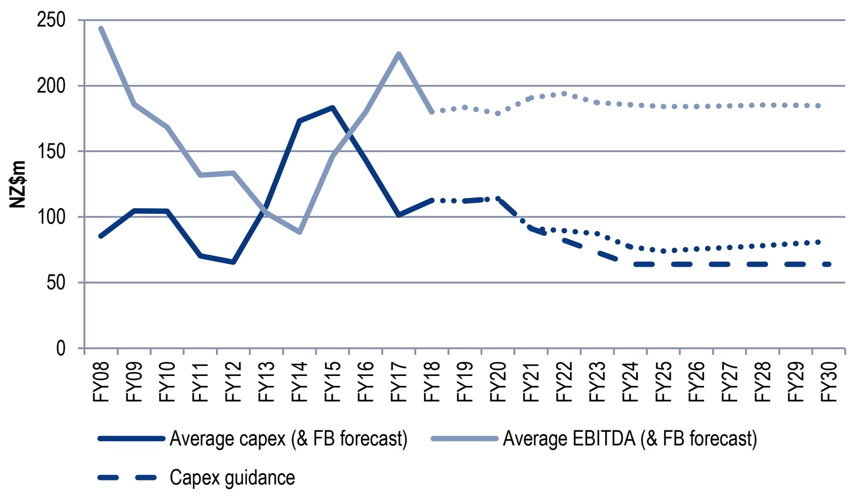
Outlook for higher GRM continues, capex guidance lower than anticipated

The near-term outlook for NZR is positive. The general view is that Marpol changes, that specify low-sulphur fuel oil, should result in a modest increase in NZR's GRM. Higher diesel/jet crack spreads are expected to more than offset lower high sulphur fuel oil spreads. Nevertheless, at this stage we have maintained our GRM forecast of US$7.75/barrel for 2H19. We estimate that the GRM for the six weeks of 2H19 has averaged a little under US$8.00/barrel.

Capex guidance

The more material commentary from NZR related to medium-term capex guidance. Following a period of elevated capex (~NZ90m p.a.) in the next three years (due mainly to a tank maintenance programme) average capex from 2023 to 2033 is expected to be ~NZ$64m. This is materially lower than our long-term forecast of $85m per annum. It is also materially lower than NZR's historic capex. Since FY06, total capex has averaged $112m per annum. Whilst that includes two significant growth projects (Point Forward and Te Mahi Hou), as discussed in prior notes, it is difficult to discern a noticeable uplift in profitability; hence, is it really growth capex? The only time in the past 13 years capex has averaged close to $65m across a three year period was 2010–2012.

Figure 2. Rolling three-year average capex and EBITDA



Source: NZR, Forsyth Barr analysis

We have decided to err on the side of caution and have lowered our long-term capex forecast -$10m to $75m per annum, half-way between our old forecast and company guidance. Our concern lies with the ability to control opex/capex, with an aging refinery and the risk of unexpected costs occurring (such as happened during last year's significant maintenance outage).

Forecast changes modest

We have lifted our FY19 EBITDA forecast +$8m to $177m, with the only material change being a lift in our throughput assumption +400,000 barrels following NZR guidance and a small reduction in our NZDUSD fx assumption. Whilst 1H19 opex was higher than forecast, NZR expects opex to fall in 2H19, hence, we have not adjusted that assumption. The increase in earnings has also lifted our dividend forecast +1.5cps to 9.0cps. Our longer-term forecasts are effectively unchanged, other than to increase FY21 capex +$20m in line with NZR guidance.

Figure 3. Forecast changes

	FY19 Old $m	FY19 New $m	% Chg	FY20 Old $m	FY20 New $m	% Chg	FY21 Old $m	FY21 New $m	% Chg
Processing fees	295	303	3%	327	327	0%	310	310	0%
Natural gas recovery	36	40	9%	37	41	9%	38	41	9%
Other income	65	66	1%	66	64	-3%	67	65	-3%
Total Revenue	**396**	**408**	**3%**	**430**	**431**	**0%**	**415**	**417**	**0%**
Pass through costs	(36)	(40)	9%	(37)	(41)	9%	(38)	(41)	9%
Operating costs	(191)	(191)	0%	(185)	(184)	0%	(187)	(187)	0%
EBITDA	**169**	**177**	**5%**	**208**	**207**	**-1%**	**190**	**188**	**-1%**
Depreciation / amortisation	(104)	(104)	0%	(104)	(104)	0%	(108)	(107)	-1%
EBIT	**64**	**73**	**14%**	**104**	**103**	**-1%**	**82**	**81**	**0%**
Net interest	(13)	(12)	-9%	(10)	(9)	-12%	(8)	(8)	-6%
Pre-tax profit	**51**	**60**	**20%**	**94**	**93**	**0%**	**73**	**74**	**0%**
Tax expense	(14)	(17)	20%	(26)	(26)	0%	(21)	(21)	0%
Profit after tax	**36**	**43**	**20%**	**67**	**67**	**0%**	**53**	**53**	**0%**
Earnings per share	11.6	13.9	20%	21.6	21.5	0%	16.9	17.0	0%
Dividend per share	7.5	9.0	20%	12.0	12.0	0%	12.0	12.0	0%
Barrels Processed (000)	43,020	43,420	1%	43,000	43,000	0%	43,000	43,000	0%
GRM (US$/barrel)	$6.55	$6.56	0%	$7.38	$7.38	0%	$7.00	$7.00	0%
NZDUSD	0.669	0.662	-1%	0.680	0.680	0%	0.680	0.680	0%
Capital expenditure ($m)	(81)	(80)	-2%	(105)	(100)	-5%	(74)	(94)	27%

Source: Forsyth Barr analysis

Investment view — upgrading to NEUTRAL

We are lifting our target price +33cps to $2.15 and upgrading our rating to NEUTRAL from UNDERPERFORM. In lifting our target price the main changes have been a ~+30cps increase in our DCF valuation due to the lower long-term capex assumption — highlighting once again the high operating leverage present in NZR. The changes to our WACC (main change being the risk free rate lowered to 2.0% from 2.75%) have had a relatively minor impact on NZR's DCF — less than +3%.

The near-term outlook has also improved as the sector gets closer to the Marpol implementation date of 1 January 2020, and we believe there is more likely to be upside risk to our forecasts in the short-term.

Investment summary

Our rating is NEUTRAL. Refining NZ's (NZR) near-term outlook is looking more positive with shipping fuel specification changes likely to be positive in the coming months. However, we see medium-term uncertainties, particularly demand risk as the global economy slows which may weigh on the GRM.

Business quality

- **Important piece of NZ infrastructure:** NZR produces ~70% of New Zealand's refined fuel requirements and is a core part of the fuel supply infrastructure. In addition, the refinery to Wiri (Auckland) pipeline is a key strategic asset. Auckland is serviced solely from the refinery, which means NZR will always have a future supplying Auckland.
- **NZR margin uplift:** NZR typically receives +US$3 to US$4/barrel more than the Singapore complex margin with freight differentials (it is cheaper to import bulk crude than refined product) and product differentials being the primary drivers.

Earnings and cash flow outlook

- **Significant operating leverage:** NZR is a high fixed cost business meaning changes in the gross refining margin (GRM) and NZDUSD have a significant impact on processing fee revenue and therefore earnings. These two factors are NZR's main value drivers, and both are notoriously volatile.
- **Shipping fuel oil changes:** Ships need to switch to low sulphur products from 2020 which could be either positive or negative for NZR, although market expectations are it is likely to be a small positive, kicking in from late 2019.
- **Asia/Pacific refining capacity:** Surplus refining capacity is forecast to fall in the next few years, which should be supportive of refining margins.

Financial structure

- **Moderate financial leverage:** NZR targets debt levels below $200m, however, periods of low earnings and/or high capex can result in higher debt levels. Whilst NZR has some downside protection from a processing fee floor, it limits losses, as opposed to preventing them.

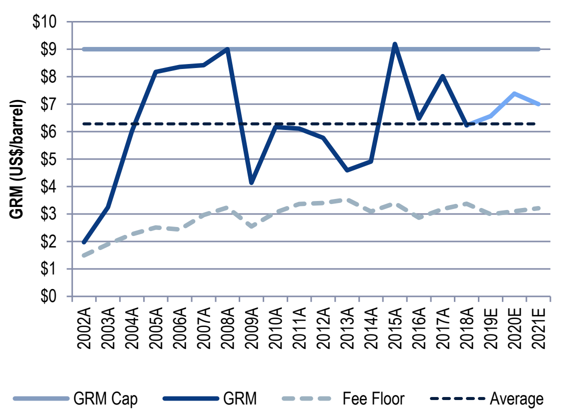
Risk factors

- **Capex outlook:** High operating leverage within NZR mean controlling opex and capex is very important. NZR's guided long-term capex of ~$64m is significantly lower than historic capex levels and if underlying opex/capex were to increase, that would have a material impact on NZR's value.
- **Falling fuel volumes:** A long-term threat to NZR is a fall in fuel demand. However, in our view the material impacts of lower volumes is beyond 2040.

Company description

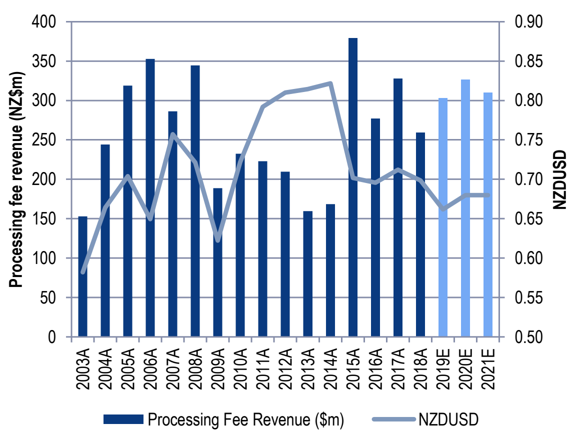
NZR refines crude oil for the NZ market at the Marsden Point Oil Refinery. It produces approximately 60% of NZ's petrol, 65% of diesel and 85% of jet fuel. NZR also owns and operates a pipeline to Wiri, in south Auckland, supplying all of Auckland's refined product. NZR is a tolling operation, receiving a processing fee for refining crude oil. It has a fixed cost base and therefore has high operating leverage to global refining margins and the NZDUSD. NZR's customers are the main three main fuel retailers, Z Energy, BP and Mobil.

Figure 4. Gross refining margin (GRM)



Source: NZR, Forsyth Barr analysis

Figure 5. Processing fee revenue



Source: NZR, 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%
Wellington Management Company	8.3%
ACC	5.1%

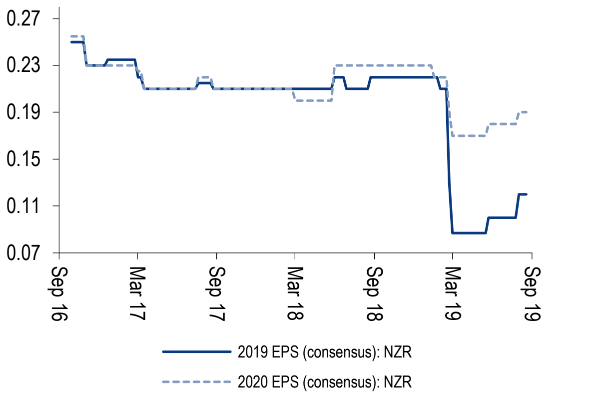
Source: NZX, Forsyth Barr analysis, NOTE: based on SSH notices only

Figure 7. International Compcos

Company	Code	Price	Mkt Cap	PE		EV/EBITDA		EV/EBIT		Cash D/Yld
(metrics re-weighted to reflect NZR's balance date - December)			(m)	2019E	2020E	2019E	2020E	2019E	2020E	2020E
Refining NZ	**NZR NZ**	**NZ$2.05**	**NZ$641**	**14.7x**	**9.5x**	**5.1x**	**4.4x**	**12.4x**	**8.8x**	**5.9%**
Formosa Petrochemical Corp	6505 TT	TWD97.80	TWD931,639	19.1x	15.6x	11.9x	10.0x	14.6x	11.5x	4.9%
Idemitsu Kosan Co	5019 JP	¥2832.00	¥855,053	6.5x	5.7x	6.5x	5.7x	9.0x	n/a	6.2%
Showa Shell Sekiyu KK	5002 JP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SK Innovation Co	096770 KS	KRW162500.00	KRW15,025,654	13.2x	8.6x	6.5x	5.1x	10.4x	7.2x	4.9%
S-Oil Corp	010950 KS	KRW91700.00	KRW10,323,842	21.2x	9.0x	11.1x	7.1x	16.3x	8.4x	4.8%
			Compco Average:	**15.0x**	**9.7x**	**9.0x**	**7.0x**	**12.6x**	**9.0x**	**5.2%**
EV = Current Market Cap + Actual Net Debt			**NZR Relative:**	**-2%**	**-2%**	**-44%**	**-37%**	**-1%**	**-2%**	**+12%**

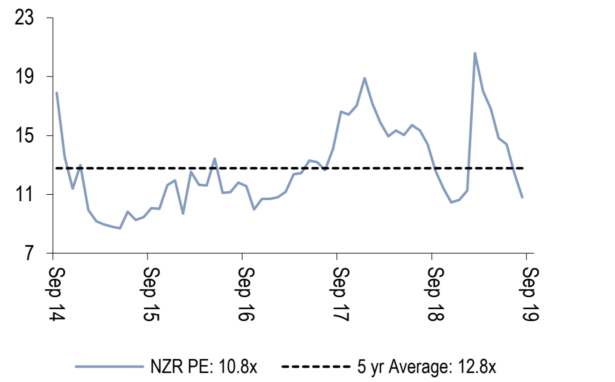
Source: *Forsyth Barr analysis, Bloomberg Consensus, Compco metrics re-weighted to reflect headline (NZR) companies fiscal year end

Figure 8. Consensus EPS Momentum



Source: Forsyth Barr analysis, Bloomberg

Figure 9. 12 Month Forward PE



Source: Forsyth Barr analysis