

# NZX

## The Wise Man Built His House Upon The Rock...

**JAMIE FOULKES**

jamie.foulkes@forsythbarr.co.nz

+64 4 491 2217

### OUTPERFORM

We initiate coverage of NZX with an OUTPERFORM rating and a target price of NZ\$1.57. We believe NZX presents an excellent buying opportunity for the long term investor, exhibiting both defensive qualities and an attractive growth profile. Our positive view is principally based on fundamental value, diversity of turnover and growth opportunities in niche markets. The business is also well placed to benefit from a global thematic shift towards sustainable financing; both from an investment point of view and as a driver of a number of revenue streams. A new management team was appointed in 2017, and set a range of aspirational five year targets for FY23, with short term objectives largely executed to date. Due to a restructuring of the business in 2018, exposure to a number of structural growth trends and product superiority in the Wealth Technologies business, we are sanguine that longer term ambitions can be met. Key risks include concentration risk in the Wealth Technologies business and increased competition in New Zealand's ETF market. We expect NZX's share price to be supported in the near term by its defensive yield of ~5%, a healthy balance sheet and stable underlying earnings growth.

NZX Code	NZX	Financials: Dec/	19A	20E	21E	22E	Valuation (x)	19A	20E	21E	22E
Share price	NZ\$1.27	NPAT* (NZ\$m)	14.6	14.7	16.9	19.7	EV/EBITDA	11.0	11.0	10.0	8.9
Target price	NZ\$1.57	EPS* (NZc)	5.3	5.3	6.0	7.0	EV/EBIT	15.1	15.4	13.5	11.7
Risk rating	Medium	EPS growth* (%)	5.4	-0.3	14.0	16.8	PE	24.0	24.1	21.1	18.1
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\$352m	Imputation (%)	100	100	100	100	Cash div yld (%)	4.8	4.8	4.8	5.5
Avg daily turnover	248.8k (NZ\$296k)	*Based on normalised profits					Gross div yld (%)	6.7	6.7	6.7	7.7

### Initiatives executed in core businesses

The core divisions have an attractive growth outlook, unpinned by removal of growth limitations. These include the simplification of listing rules in the Issuer Relationships division so to drive new product lines, fee structure changes in Secondary Markets to increase total value traded and cleared and the divestment of non-performing assets in the Data and Insights division.

### Funds businesses driven by Wealth Technologies product superiority and structural ETF tailwind

- NZX is the sole provider of ETFs in New Zealand. With a low global penetration rate, Smartshares is well placed to benefit from the structural migration towards passive funds and the translation into further net cash inflows in addition to further market growth.
- It is difficult for investors to have a high level of insight into the Wealth Technologies business. However API-enablement and a high level of versatility provide a point of difference for NZXWT in a stagnant market encumbered by legacy technology. We are hopeful of new contract wins in the present window of opportunity, with competitors looking to overcome a range of existing limitations.

### Largely immune to the impacts of COVID-19

Deemed an essential service during Level 4 lockdown, we do not see genuine distress in a further downside scenario, with 64% of the business stable or likely to experience a positive uplift. The remaining 36% of FY19 revenue will experience some short term softening of growth due to the cyclical nature of the Issuer Relationships and Funds Management businesses.

### Valuation

We expect the business to grow revenue and EBITDA at an attractive rate and use a discounted cash flow to set a target price of NZ\$1.57. With a pipeline of opportunities in the Wealth Technologies business, further contract wins are a likely catalyst for the stock.

**NZX Ltd (NZX)**

Priced as at 11 May 2020 (NZ\$)

**1.27**
**12-month target price (NZ\$)\***
**1.57**

Expected share price return	24.0%
Net dividend yield	4.8%
Estimated 12-month return	28.8%

**Spot valuations (NZ\$)**

1.DCF	1.57
2.n/a	n/a
3.n/a	n/a

**Key WACC assumptions**

Risk free rate	2.00%
Equity beta	0.85
WACC	8.1%
Terminal growth	1.5%

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

Total firm value	433
(Net debt)/cash	9
Less: Capitalised operating leases	(22)
Value of equity	420

**Profit and Loss Account (NZ\$m)**

	2018A	2019A	2020E	2021E	2022E
Sales revenue	64.5	69.5	70.8	76.0	83.4
<b>Normalised EBITDA</b>	<b>28.6</b>	<b>31.4</b>	<b>31.1</b>	<b>34.3</b>	<b>38.4</b>
Depreciation and amortisation	(7.2)	(8.6)	(8.8)	(8.9)	(9.1)
<b>Normalised EBIT</b>	<b>21.3</b>	<b>22.8</b>	<b>22.4</b>	<b>25.3</b>	<b>29.3</b>
Net interest	(1.3)	(2.0)	(1.9)	(1.9)	(1.9)
Associate income	0	0	0	0	0
Tax	(6.1)	(5.9)	(5.7)	(6.6)	(7.7)
Minority interests	0	0	0	0	0
<b>Normalised NPAT</b>	<b>13.7</b>	<b>14.6</b>	<b>14.7</b>	<b>16.9</b>	<b>19.7</b>
Abnormals/other	(2.0)	0	0	0	0
<b>Reported NPAT</b>	<b>11.6</b>	<b>14.6</b>	<b>14.7</b>	<b>16.9</b>	<b>19.7</b>
Normalised EPS (cps)	5.0	5.3	5.3	6.0	7.0
DPS (cps)	7.6	6.1	6.1	6.1	7.0

**Valuation Ratios**

	2018A	2019A	2020E	2021E	2022E
EV/EBITDA (x)	12.0	11.0	11.0	10.0	8.9
EV/EBIT (x)	16.0	15.1	15.4	13.5	11.7
PE (x)	25.3	24.0	24.1	21.1	18.1
Price/NTA (x)	n/a	n/a	n/a	n/a	n/a
Free cash flow yield (%)	4.4	4.7	3.9	4.5	5.2
Net dividend yield (%)	6.0	4.8	4.8	4.8	5.5
Gross dividend yield (%)	8.3	6.7	6.7	6.7	7.7

**Capital Structure**

	2018A	2019A	2020E	2021E	2022E
Interest cover EBIT (x)	16.8	11.7	11.6	13.2	15.4
Interest cover EBITDA (x)	n/a	n/a	n/a	n/a	n/a
Net debt/ND+E (%)	-12.0	-16.1	-15.8	-13.3	-13.0
Net debt/EBITDA (x)	n/a	n/a	n/a	n/a	n/a

**Growth Rates**

	2018A	2019A	2020E	2021E	2022E
Revenue (%)	-14.4	7.9	1.8	7.3	9.8
EBITDA (%)	-1.5	9.8	-0.8	10.2	11.9
EBIT (%)	-2.8	6.7	-1.8	13.4	15.5
Normalised NPAT (%)	-7.8	7.1	0.4	14.7	16.8
Normalised EPS (%)	-8.5	5.4	-0.3	14.0	16.8
Ordinary DPS (%)	0.0	0.0	0.0	0.0	14.8

**Key Ratios**

	2018A	2019A	2020E	2021E	2022E
Return on assets (%)	11.4	10.7	10.5	11.8	13.5
Return on equity (%)	22.2	22.9	22.5	25.6	29.1
Return on funds employed (%)	27.9	30.7	29.4	32.3	36.1
EBITDA margin (%)	44.3	45.1	43.9	45.1	46.0
EBIT margin (%)	33.1	32.7	31.6	33.3	35.1
Capex to sales (%)	14.6	11.9	13.4	12.7	11.7
Capex to depreciation (%)	583	416	495	509	525
Imputation (%)	100	100	100	100	100
Pay-out ratio (%)	152	116	116	102	100

**Cash Flow (NZ\$m)**

	2018A	2019A	2020E	2021E	2022E
<b>EBITDA</b>	<b>28.6</b>	<b>31.4</b>	<b>31.1</b>	<b>34.3</b>	<b>38.4</b>
Working capital change	1.7	0.2	(0.1)	(0.4)	(0.6)
Interest & tax paid	(7.3)	(7.8)	(7.6)	(8.5)	(9.6)
Other	2.0	1.1	0	0	0
<b>Operating cash flow</b>	<b>24.9</b>	<b>24.8</b>	<b>23.4</b>	<b>25.4</b>	<b>28.2</b>
Capital expenditure	(9.4)	(8.3)	(9.5)	(9.6)	(9.8)
(Acquisitions)/divestments	(5.4)	(0.0)	0	0	0
Other	(2.1)	(1.3)	0	0	0
<b>Funding available/(required)</b>	<b>8.0</b>	<b>15.2</b>	<b>13.9</b>	<b>15.8</b>	<b>18.5</b>
Dividends paid	(17.5)	(12.8)	(13.8)	(17.0)	(18.4)
Equity raised/(returned)	0	0	0	0	0
<b>(Increase)/decrease in net debt</b>	<b>(9.5)</b>	<b>2.4</b>	<b>0.1</b>	<b>(1.2)</b>	<b>0.1</b>

**Operating Performance**

	2018A	2019A	2020E	2021E	2022E
<b>Revenue (NZ\$m)</b>					
Core markets	51.9	54.5	54.6	55.3	56.9
Funds services	12.5	14.6	15.9	20.4	26.2
Corporate	-	0.5	0.3	0.3	0.3
<b>Total revenue</b>	<b>64.5</b>	<b>69.5</b>	<b>70.8</b>	<b>76.0</b>	<b>83.4</b>
<b>Revenue % chg</b>					
Core markets	-0.8%	4.9%	0.3%	1.2%	3.0%
Funds services	10.7%	16.4%	9.1%	28.2%	28.3%
<b>Total revenue</b>	<b>1.3%</b>	<b>7.9%</b>	<b>1.8%</b>	<b>7.3%</b>	<b>9.8%</b>

**Balance Sheet (NZ\$m)**

	2018A	2019A	2020E	2021E	2022E
Working capital	5.4	5.2	5.3	5.7	6.3
Fixed assets	2.8	2.6	2.7	2.7	2.8
Intangibles	66.7	67.7	68.9	69.9	70.9
Right of use asset	6.3	5.8	5.6	5.3	5.1
Other assets	56.7	79.7	79.7	79.7	79.7
<b>Total funds employed</b>	<b>137.9</b>	<b>161.0</b>	<b>162.1</b>	<b>163.4</b>	<b>164.7</b>
Net debt/(cash)	(6.6)	(8.9)	(9.0)	(7.7)	(7.8)
Lease liability	8.1	7.2	6.6	6.3	6.0
Other liabilities	75.0	98.8	99.0	99.0	98.9
Shareholder's funds	61.4	63.9	65.5	65.9	67.7
Minority interests	0	0	0	0	0
<b>Total funding sources</b>	<b>137.9</b>	<b>161.0</b>	<b>162.1</b>	<b>163.4</b>	<b>164.7</b>

**EBITDA (NZ\$m)**

	2018A	2019A	2020E	2021E	2022E
Core markets	39.5	41.2	41.7	41.9	43.0
Funds services	4.8	5.2	6.2	8.6	12.5
Corporate	(15.7)	(15.0)	(16.9)	(16.1)	(17.1)
<b>Total EBITDA</b>	<b>28.6</b>	<b>31.4</b>	<b>31.1</b>	<b>34.3</b>	<b>38.4</b>

**EBITDA % chg**

	2018A	2019A	2020E	2021E	2022E
Core markets	-2.6%	4.2%	1.4%	0.3%	2.8%
Funds services	74.7%	8.6%	20.9%	37.1%	45.4%
<b>Total EBITDA</b>	<b>-1.5%</b>	<b>9.8%</b>	<b>-0.8%</b>	<b>10.2%</b>	<b>11.9%</b>

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

## Executive Summary

We initiate coverage of NZX with an OUTPERFORM rating and a target price of NZ\$1.57. Attractions include a diversified number of revenue streams, strength of core divisions and existing growth opportunities in the Funds Management businesses.

### Investment thesis

Prior to the new management team appointed in 2017, NZX's historical performance had been underwhelming at best, with sluggish growth compounded by low margins and poor cost control. After a comprehensive review of the business in 2017, a five year strategic plan was set out and an aspirational range of targets set for FY23. With a strong FY19 performance and continued progress in 1Q20, short term objectives have been broadly met to date. Although long term targets remain ambitious, and we acknowledge that NZX is exposed to a number of uncertainties, we take comfort from our assessments that:

- The business has made considerable progress in evolving from a pure exchange services provider, moving to a more diversified business with over 20 different revenue streams across five divisions as of FY19.
- NZX has been restructured to focus on a centralised core of three divisions, disposing the under performing legacy assets and removing previous barriers to growth. This has enabled the core divisions to expand organically, with long term growth opportunities existing in the Data & Insights division and the dairy derivatives business.
- Recent focus has shifted towards growing and expanding the Funds Under Management and Wealth Technologies businesses. We believe these are both standalone opportunities, operating in niche markets with low levels of current competition.

### Key attractions

We consider the key investment attractions for NZX to be 1) level of stability and underlying growth trends within core divisions, 2) product superiority for the Wealth Technologies business, 3) a global structural shift towards ETFs and resulting impact for Smartshares, 4) immunity to the effects of COVID-19 for a large proportion of the business

1. **Stability and future growth of core divisions** – Despite a weak IPO market, Issuer Relationships has seen robust levels of capital raised recently, underpinned by a strong debt capital market and benefiting from a change in the listing rules. We are encouraged by the impact of fee changes in the Secondary Markets division and believe the Data and Insights division to be well placed to benefit from an increasing gravitation towards ESG financing.

2. **Superior product offering by Wealth Technologies** With the advancement of open architecture (API-enablement) and a high level of product versatility, NZXWT is able to meet a shift in demand towards a more componentised model away from legacy technology. It offers either 'Software as a service' or the full suite of custodial platform functionality - a clear point of difference to current competitors. This leaves the business well placed to win further contracts but within a defined window of opportunity.

3. **Smartshares exposure to growing ETF demand** – As the sole provider of ETFs in New Zealand, Smartshares is set to benefit from a structural shift towards passive investing with a low global penetration rate expected to translate into further net cash inflows. In addition we are encouraged by partnerships with global ETF providers such as Blackrock and Vanguard.

4. **COVID-19** – Deemed an essential service in New Zealand, counter cyclical benefits from the Secondary Markets division and the stability of the Data & Insights division partially offset dampened growth in the Issuer Relationships and Funds Management businesses.

### Valuation

We use a discounted cash flow to set a target price of NZ\$1.57. We are attracted to a defensive yield of ~5% and given the portfolio of existing growth opportunities, we expect the business to grow revenue and EBITDA at an attractive rate.

### Risks

We rate NZX as medium risk in light of its growth profile, level of diversity, healthy balance sheet and essential provision of key financial services. We do not see the company exhibiting genuine distress in a further downside scenario.

We consider key risks for the business to be the cyclical nature of the Issuer Relationships and Fund Management divisions, concentration risk and timeline slip in the Wealth Technologies division, and increased competition driving fee compression for the Smartshares business.

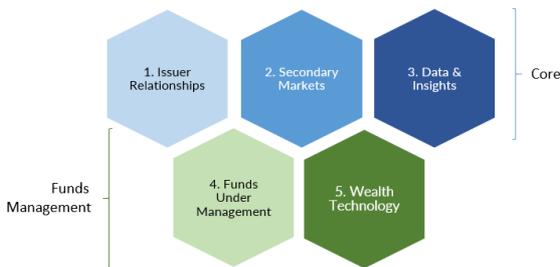
## Attraction #1 Steady growth of complimentary core division portfolio

Following a protracted period of sluggish growth, exacerbated by poor cost control and a stock performance to match, the new management team appointed in 2017 were tasked with turning the flagging business around.

### Strategy refresh and bold ambitions

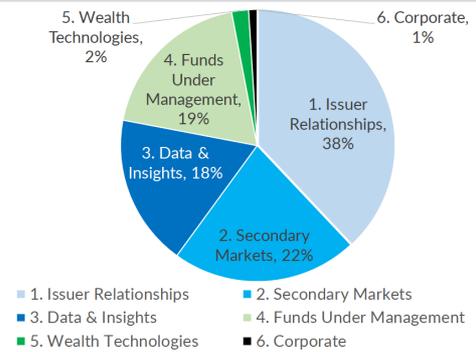
After an extensive review of the business, a five year plan was set out, centred around the stability of three core divisions. Initiatives included improved client focus in the Issuer Relationships division, fee structure changes in the Secondary Markets division, and simplification of the Data & Insights division which included the sell off of the under-performing non-dairy agricultural businesses.

**Figure 1. Core divisional breakdown**



Source: Forsyth Barr analysis

**Figure 2. Core make of 78% of FY19 revenues**



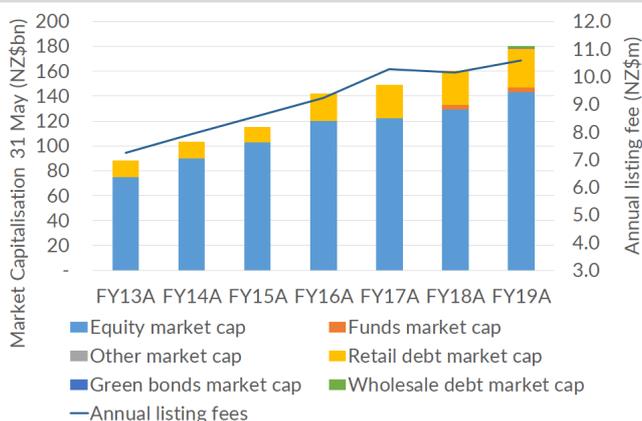
Source: NZX, Forsyth Barr analysis

### Issuer Relationships – stable growth in level of capital raised despite primary equity lapse

The division generates revenue from the listing of debt and equity securities in addition to an annual listing fee reflecting total market capitalisation at 31 May each year. It also includes long-term contracts for the operation of the Fonterra and Electricity Authority markets in New Zealand. The primary driver is total capital raised each year.

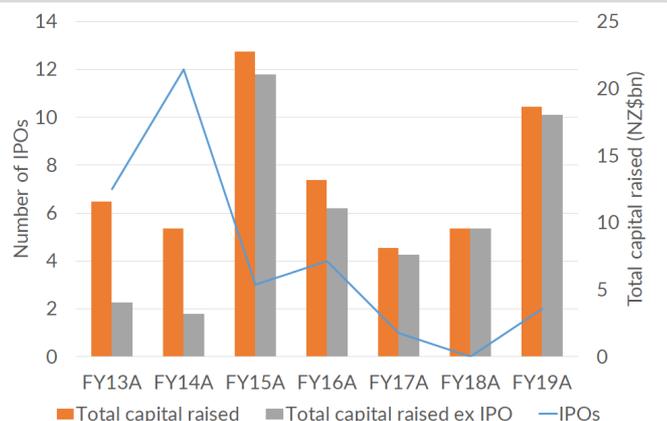
We are encouraged by initiatives set out, such as the promotion of direct listings to encourage further capital raises and an improved level of customer engagement, while simplification of the listing rule set and increased sales and marketing has also been beneficial. There has been additional gains from the introduction of new product lines such as wholesale debt.

**Figure 3. Annual listing fee, market cap growth**



Source: NZX, Forsyth Barr analysis

**Figure 4. Total capital raised +/- IPO vs # IPOs**



Source: NZX, Forsyth Barr analysis

Despite the average number of initial public offerings (IPOs) over the last three years having been just one pa, a strong debt capital market has been the main driver of total capital raised by NZX. We view the IPO market as having underperformed during this period. This has been made worse by a ferocious private equity market and elevated asset values. Looking forward, we expect an average of three to four IPOs pa (ex COVID-19), while we feel the division has gone a long way in becoming a more diverse capital raising hub.

The annual listing fee has also seen consistent growth driven by increased market capitalisation, taken at 31 May each year. Although elevated equity markets have driven performance in recent years, we are encouraged to see additional asset classes listed such as funds, wholesale and green bonds adding to aggregate levels of market capitalisation.

**Figure 5. Issuer Relationships primary revenue streams, FY19 annual growth and performance drivers**

Primary Revenue streams	% Group	FY19 growth	Performance driver
Annual listing fee	15.2%	4.2%	Market Capitalisation of total securities listed 31 May each year
Issuance fees	7.7%	50.4%	Primary and Secondary Capital Debt and Equity issuances
Contractual revenues	12.5%	0.3%	Long term Fonterra and Electricity Authority operational contracts

Source: NZX, Forsyth Barr analysis

### Secondary Markets – fee change driving underlying value traded

The Secondary Markets division operates trading and clearing facilities for the New Zealand equity, debt and derivatives markets. With a disappointing performance in FY19, we are confident that the November 2018 removal of the fixed element of the trading fee and fee structure change as of July 2019 will stimulate underlying growth in total value traded and on-market liquidity.

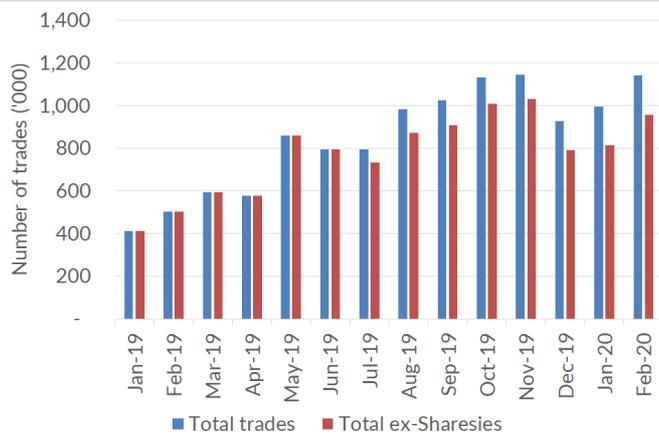
The division also includes dairy derivatives. Although making up just 2.2% of FY19 revenue, the business has grown over time and we expect this to be a long term growth driver of the division through international expansion.

**Figure 6. Secondary Markets primary revenue streams, annual growth and performance drivers**

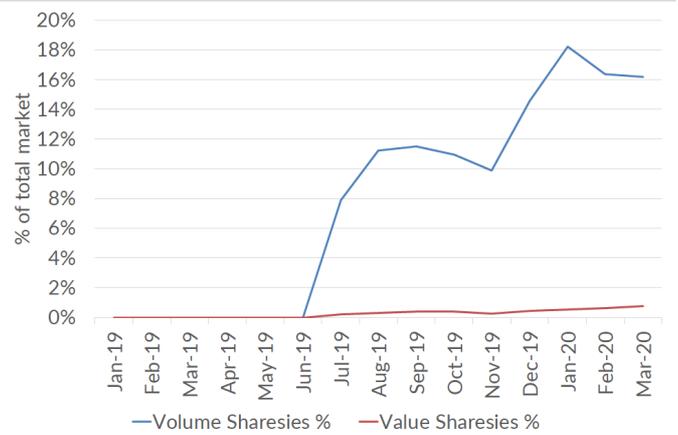
Primary Revenue streams	% Group	FY19 growth	Performance driver
Participant fees	5.8%	2.8%	Number of participants (brokers) in the market
Trading and clearing fees	14.2%	-12.8%	Total value traded/cleared
Dairy derivatives revenue	2.2%	2.0%	Number of dairy derivative lots traded

Source: NZX, Forsyth Barr analysis

Before the impact of COVID-19 (~March onwards) and removing Sharesies from the total number, the graph below shows number of trades in the market illustrating the 1 July 2019 fee change impact. January volume of trades was +97% excluding Sharesies, while February was +90%. In March 2020, Sharesies made up 1% of value traded and 16% of volumes traded.

**Figure 7. Increased # of NZ trades +/- Sharesies**


Source: IRESS, Forsyth Barr analysis

**Figure 8. Sharesies % market value & volume**


Source: IRESS, Forsyth Barr analysis

### Data & Insights – steady growth set to benefit from ESG reporting

Data and Insights provides capital markets data to market participants and global data resellers in the form of data terminals and licences. In addition to licence growth, the division will benefit from a future increase in the level of environmental, sustainable and governance (ESG) reporting.

With an EBITDA margin of 86% at FY19, promising trends have shown ongoing organic growth in the number of licences sold. Leveraging off of the other core divisions, revenue is also set to benefit from an increase in energy and dairy insights.

**Figure 9. Data & Insights primary revenue streams, annual growth and performance drivers**

Primary Revenue streams	% Group	FY19 growth	Performance driver
Royalties fees from terminals	8.9%	1.4%	Number of terminals sold (shift from terminals to licences)
Subscriptions and licenses	5.3%	17.7%	Number of licences sold (shift from terminals to licences)

Source: NZX, Forsyth Barr analysis

## Key attraction #2 Wealth Technologies

Competition is currently limited for NZX Wealth Technologies and there are a number of barriers to entry. NZXWT currently offers a superior product to competitors, driven by API-enablement and a high level of versatility. However, the competitive gap will close in time which provides a defined window of opportunity. New contract wins for the business will act as a catalyst for the stock.

### What is NZX Wealth Technologies?

The Wealth Technologies software was built to provide custodial administration for wealth advisory firms in New Zealand. This includes custodian services such as keeping records of stock holdings and platform functionality. Fees are generated from total client Funds Under Administration (FUA) on the platform, dependent on the type of services provided.

### Creative disruption

The Wealth Technologies market in New Zealand has seen little in the way of change or innovation over the last 15 years with legacy technology no longer able to provide clients with the level of service or software required. More recently there has been a demand shift towards a more componentised model. Critically, clients are now prepared to accept separate software components from different providers, which when brought together compliment any existing in-house technology. NZX have spent five years building a new API-enabled platform, bringing new technology to market and meeting the change in client requirements.

### Abundance of opportunity

NZX's product can be broken down into two offerings:

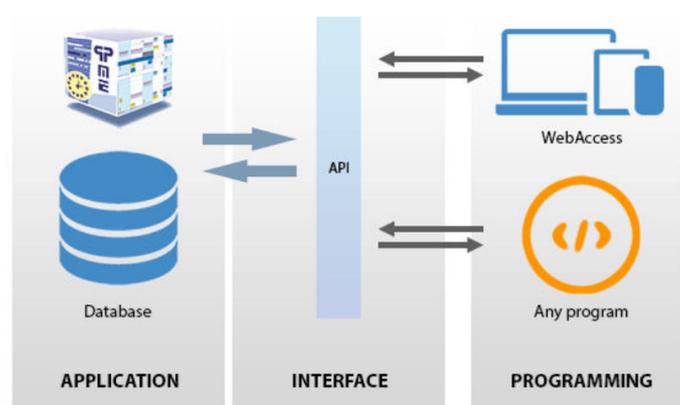
- 1) The option to provide 'Software as a Service'. This has meant NZX can sell specific software to a client, typically to larger clients that have the resources to continue their own in-house back office operations. It allows the client to plug in NZX technology to sit underneath its own front end web portal and appeals to clients who offer additional services to portfolio management.
- 2) The ability to provide a full suite of platform services. This ranges from a variety of product options on the platform front end, to back office custodial administration. Front end client portal options include Kiwisaver, Superannuation, a conventional wrap and broker centric functionality.

### API: a game changer – what is it and why so important?

An Application Programming Interface (API) connects a dataset or an existing application with a second application through cloud computing, allowing the application to retrieve a specific range of data quickly and efficiently. This is known as open architecture.

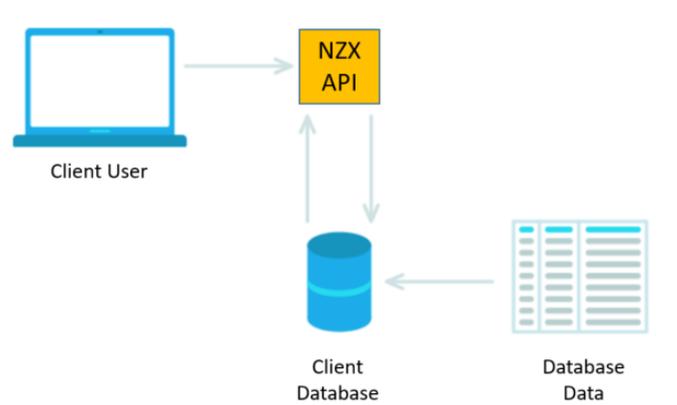
NZXWT built its entire platform from the offset based around API infrastructure in 2015, unencumbered by legacy technology. This allows the whole application from front to back to be API-based. To date, NZX has a range of over 1000 APIs giving the business a significant level of versatility ahead of current competitors. It can be used to retrieve historic data from a client's database for use within a particular application, such as a portfolio management tool or a finance reporting web application. It also allows the 'plug-in' function to work alongside a clients existing software provision.

Figure 10. Generic API explanation



Source: Planningpme

Figure 11. NZX API-enabled platform



Source: Forsyth Barr analysis

**Figure 12. API capability and benefits**

Capabilities	Benefits
Enables integration (plug in) with other pieces of software	Makes migration and onboarding faster and easier
Able to add/remove additional layers of functionality	Adapts to changing need of client over time
Ability to retrieve specific data from a database	No software installation required
Applications able to update and modernise in line with market	Ensures technology does not become outdated
Offers a wide range of functionality for different providers	Provides more bespoke approach to winning clients

Source: Forsyth Barr analysis

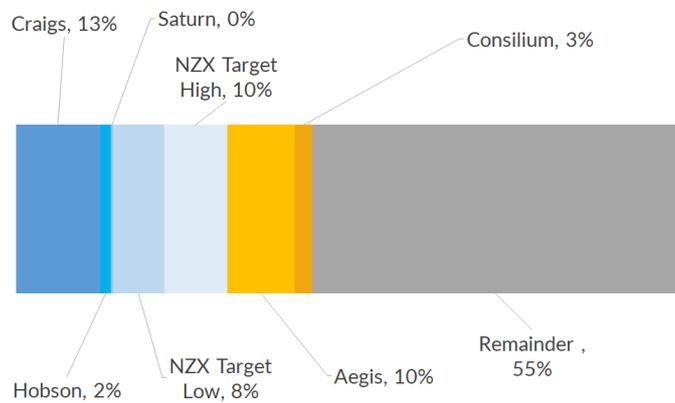
**Limited competition, addressable market c.NZ\$160bn**

The Reserve Bank estimates New Zealand's total aggregate managed funds to be NZ\$157bn at December 2019.

NZXWT currently has one client part-onboarded (Craigs Investment Partners) and two letters of intent to onboard Hobson Wealth and Saturn Advisory in FY20E. As at December 2019 this totalled NZ\$23bn Funds Under Administration. This will give NZX a current market share of 15% once Craigs, Hobson and Saturn are fully onboarded. The FY23E top target of NZ\$50bn FUA would give NZX a 32% market share.

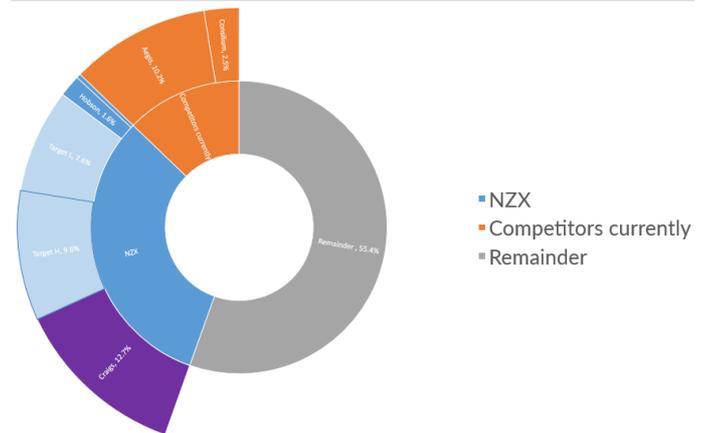
The wealth advisory client base in New Zealand is sticky, primarily due to migration costs, with a typical contract signed for at least 3 years with an additional 12 month exit. We estimate there to be 12-15 medium to large companies in the New Zealand market.

**Figure 13. NZ Wealth Tech market share split NZX % vs peers %**



Source: Forsyth Barr analysis

**Figure 14. New Zealand Wealth Tech market share PIE**



Source: Forsyth Barr analysis

**Current competitors**

Although a number of companies use their own in-house software, MMC backed Aegis and FNZ backed Consilium provide the only significant competition to NZXWT currently.

**Aegis: old tech, new owners**

Aegis Investment Administration started in 1998 and was bought by MMC in October 2019 from ASB, with FUA of c.NZ\$16bn. Much of the technology is based on a legacy portfolio and requires considerable modernisation.

We believe Aegis to have very limited API functionality. Although they have done some small API work for clients in the past, it is notoriously difficult to over-lay old technology legacy platforms with newer software. This limits Aegis' future scope in regards to future API work as it stands and any new platform build would be expected to take a number of years.

**Consilium – a 'hand-me-down' of new tech or a distraction for FNZ?**

Consilium is a client of FNZ (a global provider of wealth technology) and has its own portfolio of around 100 clients totalling NZ\$4bn FUA. Consilium have previously focused on Synergy Investment solutions (asset management) but launched the Wrap 2.0 platform in April 2020 to provide custodial functionality. Although with a current portfolio of smaller clients, we expect the company to be competing with NZX for larger clients in the future. Strategy is based around bringing a portfolio of clients together as a 'co-op' to access FNZ technology. This means a client will be paying Consilium for services provided and the custodial functionality from FNZ.

Consilium have not used API technology until now, due to the previous requirements of smaller clients. However we believe it likely that FNZ's priorities lie in developing technology in larger markets such as Europe and may see Consilium as a dilution of resources: slowing down the latest roll out of technology to Consilium and the New Zealand market.

**Figure 15. New Zealand Wealth Technology providers**

	NZXWT	Aegis	Consilium
Backing	NZX	MMC	FNZ
FUA FY19	NZ\$2.3bn	c.NZ\$16.0bn	c.NZ\$4.0bn
Product	Software as service or full suite	Wrap only	Wrap only
API-enablement	Over 1000 APIs	Limited with tech	Small but FNZ backed
Focus	Med-large clients	Med-large clients	Small clients and asset mgmt
Advantage	API/versatility/newest platform	Legacy clients/new owners	FNZ backing/knowledge
Disadvantage	Number of clients currently	Legacy technology	Limited scope of product

Source: Forsyth Barr analysis

### Domestic barriers to entry

There are a number of barriers to entry obstructing new entrants to the domestic market that include:

- Sunk costs for first software build – NZXWT have spent NZ\$16m which includes purchase and Capex since 2015
- Time taken to create a new platform – this includes layers of code written and to date has taken NZX five years
- Level of professional experience/know how required – we believe NZ to have a limited number of professionals in this space
- Oligopoly of three significant players currently in the market with high standard of product offering likely to increase further

### International barriers to entry

- The size of the New Zealand market is 8% that of Australia with some international wealth firms larger than NZ's total FUA
- The New Zealand tax system provides an additional level of platform complexity for international entrants to the market
- Clients much prefer a close and personnel relationship with providers, disadvantaging foreign providers

### Scenarios

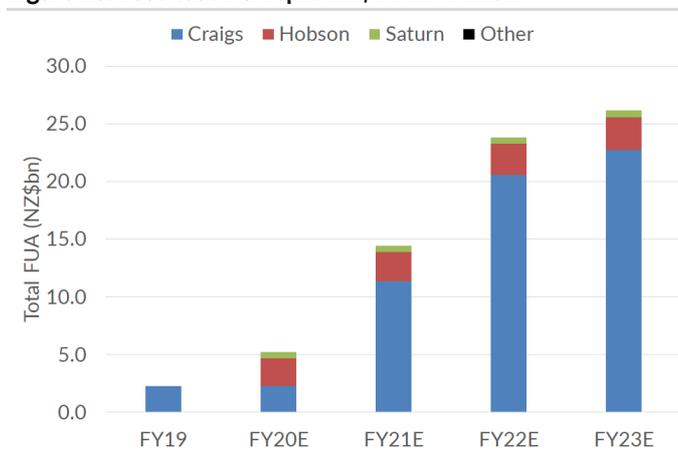
We provide a base, bull and bear case for the NZX Wealth Technologies business to FY23E. We adjust all numbers to include market movements. Our base case assumes Craigs, Hobson and Saturn will be fully onboarded by FY23E giving an ROI of 19% in FY23E.

The bull case assumes an additional client to be onboarded in FY22E and FY23E taking ROI in FY23E to 37%. The bear case assumes a slowdown in onboarding, and due to the timing of average FUA across the year, the FY23E ROI is estimated to be 13%. We assume cumulative capital invested in FY19 to be NZ\$14m with historic average levels of Capex and Amortisation applied going forward.

### Base case scenario – FY23E FUA NZ\$26bn

Our base case scenario assumes FUA for FY20E to be NZ\$5.2bn (company guidance NZ\$5.0–6.0bn) which includes both Hobson and Saturn fully onboarded. We adjust FUA to move with market growth over the four year period and we adjust Capex each year for inflation which otherwise remains unchanged.

**Figure 16. Base case FUA split NZ\$ FY19–FY23E**



Source: NZX, Forsyth Barr analysis

**Figure 17. Base case NZX Wealth Tech financials**

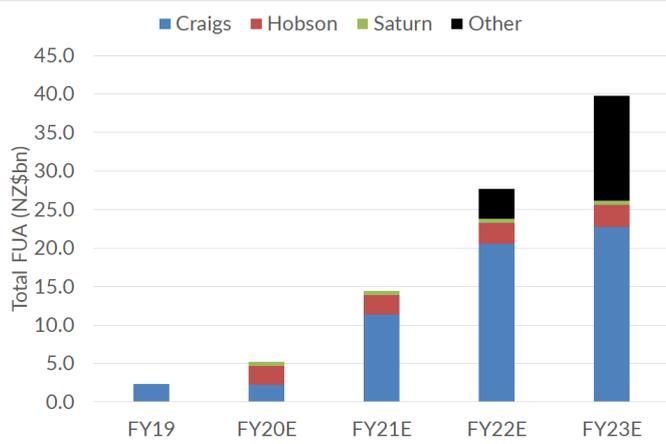
NZ\$(000)	FY19	FY20E	FY21E	FY22E	FY23E
FUA YE (NZ\$bn)	2.3	5.2	14.4	23.8	26.1
FUA Av (NZ\$bn)	2.1	3.7	9.8	19.1	25.0
FUA Revenue	1,545	2,296	5,411	9,486	11,151
Total Revenue	1,693	2,444	5,559	9,634	11,299
EBITDA	(880)	(312)	2,137	5,382	6,807
Margin	-52%	-13%	38%	56%	60%
Amortisation	(1,885)	(2,014)	(2,131)	(2,238)	(2,337)
EBIT	(2,765)	(2,326)	6	3,143	4,470
Tax 28%	774	651	(2)	(880)	(1,251)
NOPAT	(1,991)	(1,674)	4	2,263	3,218
Capex	2,800	2,842	2,885	2,928	2,972
Net cash flow	(5,565)	(5,168)	(2,878)	215	1,498
Capital Inv	14,000	14,957	15,828	16,625	17,358
ROI	-14%	-11%	0%	14%	19%

Source: NZX, Forsyth Barr analysis

### Bull case – additional client win

For the bull case we assume an additional client of NZ\$12bn onboarded in FY22E and FY23E. We assume NZ\$12bn based on the difference between lower FY23E target in FY19 of NZ\$35bn and the total of current clients/letters of intent in FY19 of NZ\$23bn. We assume no change in average fees to the base case, with fees dependent on service provided and individual contracts.

**Figure 18. Bull case FUA split NZ\$ FY19–FY23E**



Source: NZX, Forsyth Barr analysis

**Figure 19. Bull case NZX Wealth Tech financials**

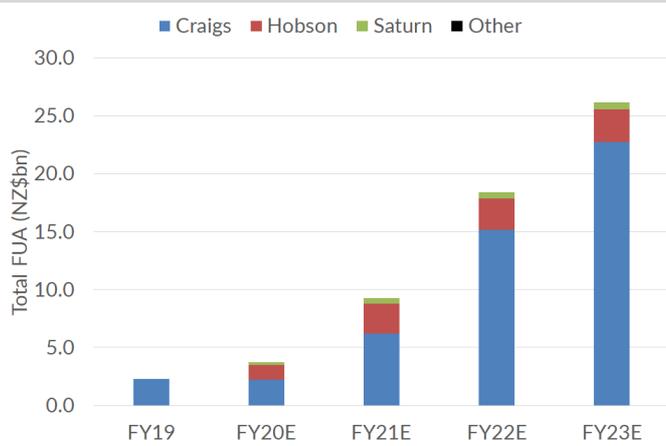
NZ\$(000)	FY20E	FY21E	FY22E	FY23E	FY23E var*
FUA YE (NZ\$bn)	5.2	14.4	27.7	39.8	52%
FUA Av (NZ\$bn)	3.7	9.8	21.1	33.7	35%
Total Revenue	2,444	5,559	10,601	15,214	35%
<b>EBITDA</b>	(312)	2,137	6,348	10,721	58%
Margin	-13%	38%	60%	70%	10%
<b>NOPAT</b>	(1,674)	4	2,959	6,036	88%
Net cash flow	(5,168)	(2,878)	1,182	5,412	261%
<b>ROI</b>	-11%	0%	18%	35%	16%

Source: NZX, Forsyth Barr analysis (\*variance to base case)

### Bear case – slowdown in onboarding process

For our bear case we assume the total FUA in FY23E to be the same as our base case but a slowdown of the onboarding process.

**Figure 20. Bear case FUA split NZ\$ FY19–FY23E**



Source: NZX, Forsyth Barr analysis

**Figure 21. Bear case NZX Wealth Tech financials**

NZ\$(000)	FY20E	FY21E	FY22E	FY23E	FY23E var*
FUA YE (NZ\$bn)	3.7	9.3	18.4	26.1	0%
FUA Av (NZ\$bn)	3.0	6.5	13.8	22.3	-11%
Total Revenue	1,993	3,732	7,014	10,091	-11%
<b>EBITDA</b>	(718)	361	2,761	5,598	-18%
Margin	-36%	10%	39%	55%	-5%
<b>NOPAT</b>	(1,967)	(1,275)	376	2,348	-27%
Net cash flow	(5,573)	(4,655)	(2,406)	290	-81%
<b>ROI</b>	-13%	-8%	2%	14%	-5%

Source: NZX, Forsyth Barr analysis (\*variance to base case)

### Risks

With a small number of clients, there is an element of concentration risk attached to the business. A slip in the onboarding time-line would cause reputational damage and allow competitors to claim additional market share. This is a localised business with little international scope.

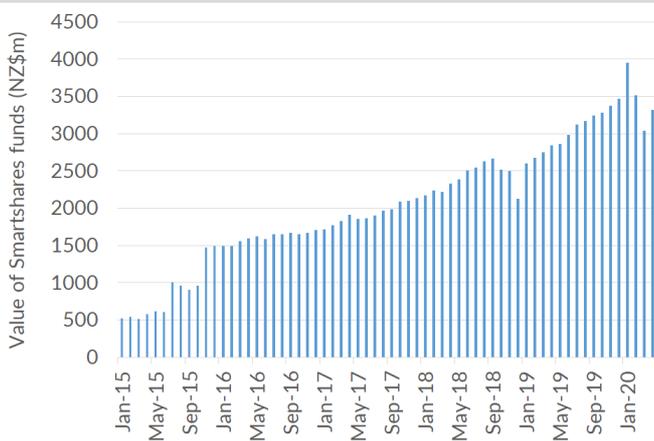
## Key attraction #3: Funds Under Management

87% of Funds Under Management (FUM) are invested in Smartshares at FY19. Smartshares is the only provider of Exchange Traded Funds (ETFs) in New Zealand, growing 67% in FY19. New Zealand has a low global penetration rate compared to peers at 2.9% of all funds and we expect to see further growth in the value and number of ETFs. This is in part driven by the global shift towards passive investing, while the popularity of sustainable and thematic funds is likely to accelerate the rate of penetration in New Zealand.

### Background – Smartshares high growth rate, new funds added 2019

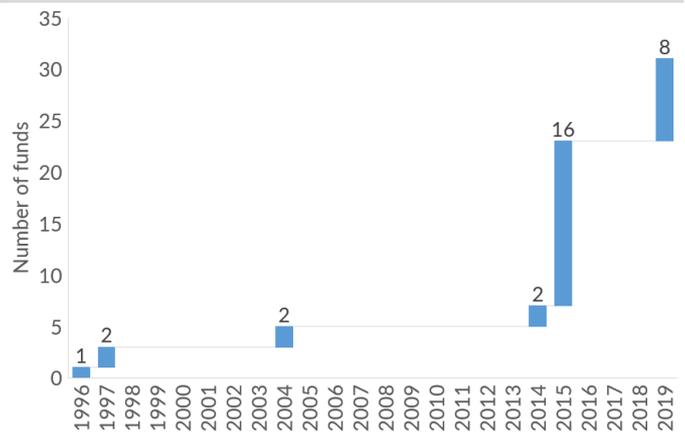
Smartshares have grown at a CAGR of 47% over the last 5 years reaching NZ\$3.5bn as at FY19. In 2019 eight new thematic ETFs were added in partnership with Blackrock to a total of 31 funds. Smartshares are invested both internally through SuperLife, Kiwisaver, and Superannuation (60%), and externally (40%). Total FUM grew 36% for the 12 months of FY19 to NZ\$3.9bn.

**Figure 22. Value of Smartshares January 15 – April 20**



Source: NZX, Forsyth Barr analysis

**Figure 23. Year of new Smartshares funds**



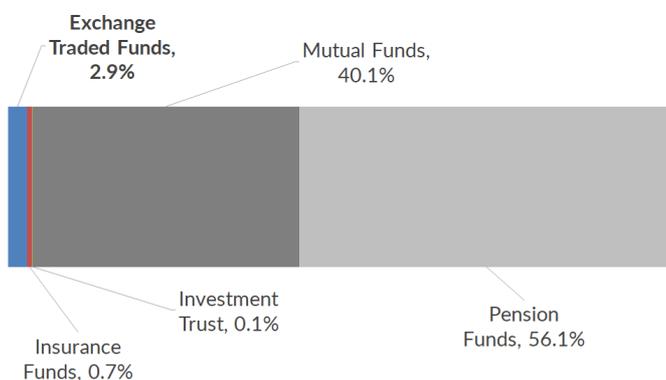
Source: NZX, Forsyth Barr analysis

### Low global ETF penetration rate in New Zealand historically

We take data from Eikon and the Reserve Bank to show two estimates of New Zealand ETF penetration.

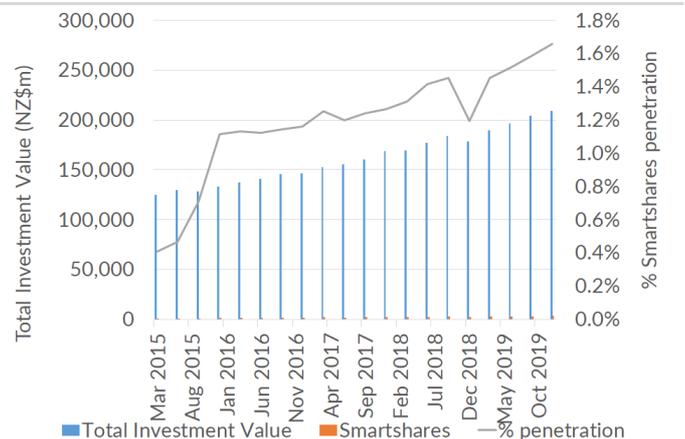
- Eikon data shows ETFs to make up the value of 2.9% of all funds available in New Zealand
- Reserve Bank shows Smartshares FUM of NZ\$3.5bn to be 1.7% of New Zealand's total invested value of NZ\$209bn

**Figure 24. New Zealand funds by type**



Source: Eikon, Forsyth Barr analysis

**Figure 25. Smartshares penetration vs total NZ investment**



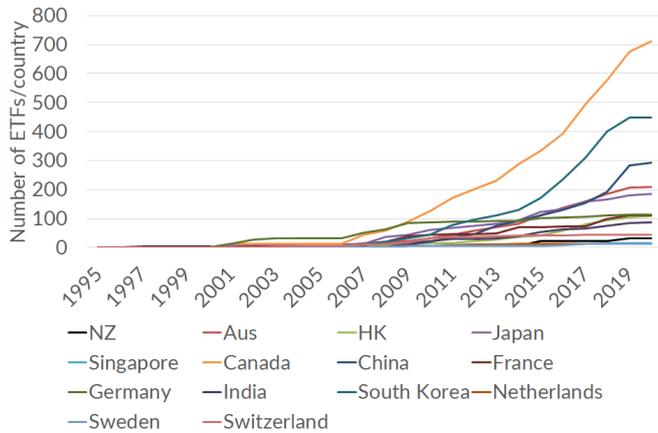
Source: Reserve Bank, NZX, Forsyth Barr analysis

The Reserve Bank data shows ETF penetration increasing from 0.5% in 2015 to 1.7% as of December 2019.

Using Eikon data we estimate Australia, Singapore, France and Switzerland to be around ~5% penetration, Mexico to be ~12%, Hong Kong to be ~14%, and Germany ~11%.

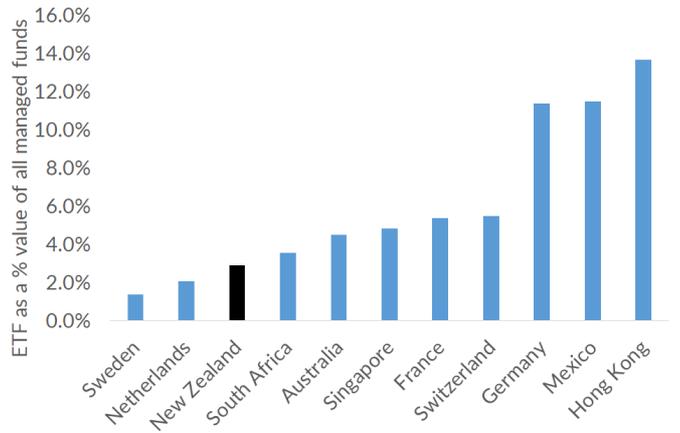
New Zealand has also brought new ETFs to the market slower than many other countries. The graph below shows New Zealand second bottom (31) vs compared countries in terms of number of ETFs to market today with Australia 210 and Hong Kong 109.

**Figure 26. Number of ETFs historically per country 1995–2020**



Source: Eikon, Forsyth Barr analysis

**Figure 27. % ETF vs all fund value NZ 2.9% vs global peers**



Source: Eikon, Forsyth Barr analysis

**Why is New Zealand's ETF penetration rate so low?**

A smaller market is less attractive to global ETF providers with New Zealand's total investment market making up 8% of Australia. New Zealand only had seven ETFs until 2015 when 16 were added in partnership with Vanguard. Smartshares has also been the only provider of ETFs in New Zealand where marketing has had low investment historically. The introduction of Sharesies to the market will provide better access to Smartshares going forward. Additionally many international portfolio managers use ETFs to meet diversification and sustainability targets or even as a short-term hedging vehicle. With increased regulation ETFs have become more attractive, particularly in Europe where MIFID has seen a greater level of transparency and higher level of scrutiny over fees.

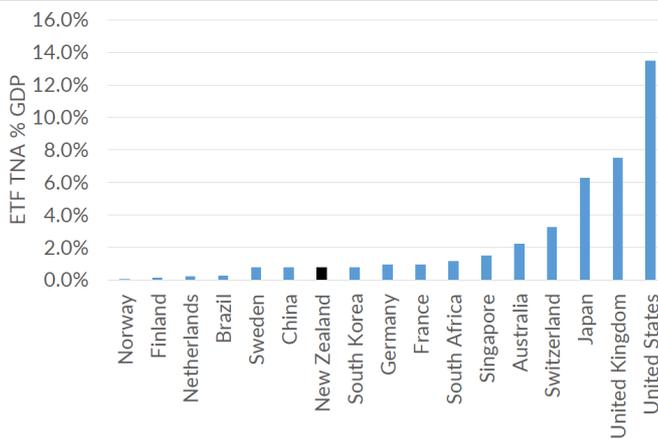
**The opportunity for the New Zealand ETF market**

We use a proxy of ETF TNA as a percentage of GDP and level of ETF TNA per capita vs household income per capita to show average levels globally and the implied growth to the New Zealand ETF market.

**ETF Total Net Assets % GDP – implied upside 66%–207%**

ETF Total Net Assets (TNA) makes up 0.8% of New Zealand GDP, below the average of the 17 countries at 2.4%. Removing the UK and US from the data, the average is 1.3%, still modestly higher than New Zealand. Applying an average of 2.4% and 1.3%, implied New Zealand ETF TNA would rise 207% and 66% respectively.

**Figure 28. ETF TNA % GDP per country**



Source: Eikon, Forsyth Barr analysis

**Figure 29. ETF TNA % GDP per country**

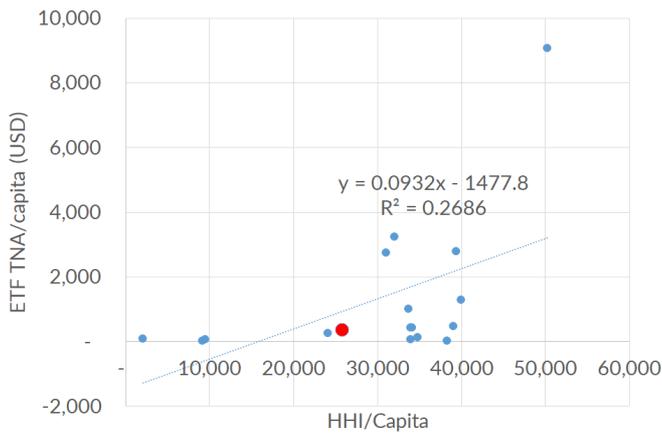
Country	ETF TNA % GDP
Norway	0.0%
Finland	0.1%
Netherlands	0.2%
Brazil	0.3%
Sweden	0.8%
China	0.8%
<b>New Zealand</b>	<b>0.8%</b>
South Korea	0.8%
Germany	0.9%
France	1.0%
South Africa	1.2%
Singapore	1.5%
Australia	2.2%
Switzerland	3.3%
Japan	6.3%
United Kingdom	7.5%
United States	13.5%
Average	2.4%
Average ex UK/US	1.3%

Source: Eikon, Forsyth Barr analysis

### ETF TNA/Capita vs HHI/Capita – implied upside 253%

We take ETF total net assets per capita and compare against average household income per capita. This shows New Zealand to be moderately below average levels, with household income per capital of US\$25,750 expected to generate US\$922 of ETF TNA per person but instead showing US\$364. Implying an average level, this would increase ETF TNA to US\$4.4bn – a rise of 253%.

**Figure 30. ETF TNA/Capita vs HHI/Capita**



Source: Eikon, Forsyth Barr analysis

**Figure 31. ETF TNA/Capita vs HHI/Capita**

	HHI/Capita	ETF TNA/Capita
United States	50,203	9,062
United Kingdom	32,039	3,241
Japan	31,003	2,740
Switzerland	39,397	2,793
Australia	39,929	1,291
Singapore	33,691	1,000
South Africa	9,486	76
France	33,940	419
Germany	38,996	469
South Korea	24,116	267
<b>New Zealand</b>	<b>25,750</b>	<b>364</b>
China	2,064	83
Sweden	34,098	438
Brazil	9,140	27
Netherlands	34,810	135
Finland	33,971	73
Norway	38,274	23

Source: Eikon, Forsyth Barr analysis

### Drivers behind future growth of the New Zealand ETF market

- **Increased retail participation** – in addition to the global structural shift, NZ benefits from growth of Kiwisaver and Sharesies
- **Drive towards sustainable investing** – ETFs provide a range of ESG themed funds and exposures (retail and institutionally)
- **Thematic ETFs growing in popularity** – exposure to long-run macroeconomic trends through innovative ETF products
- **Younger investors** exhibiting lower levels of inertia towards traditional investments as money drips through generations
- Ability to implement an **active view through a passive vehicle** (income/growth/small cap etc) – attractive for all investors
- Inevitable **increases in levels of regulation** leading to higher scrutiny over costs and performance – Europe/MIFID example
- Increased **range of funds** allowing investors exposure to niche markets previously unavailable
- Investor **desire to reduce risk** with recent volatility and increase diversity such as property, cash, debt – wide range of funds
- **Marketing campaigns** advertising cost differential, high liquidity and transparency – previously low levels of advertising

### So where does that leave Smartshares?

With Smartshares the only ETF provider in New Zealand, the greatest risk to the business is competitors entering the market and the resulting fee compression. In the short term this may be in low cost active competitors, in the long run global ETF providers.

#### Increase in low cost active fund competition

There are currently no other S&P accredited, index-linked ETFs in New Zealand, with brokerages such as ASB, InvestNow and Sharesies selling Smartshares through their platforms. There a number of firms who provide low cost active funds which are not index-linked.

- **Simplicity** have endeavoured to replicate an index-linked fund but the resulting product is actively managed and has a number of additional fees such as an on-going monthly membership fee
- **AMP Capital** charge a spread when buying or selling their funds and also have replicated the passive index actively
- **Kernel** is a new player to the market, replicating portions of the index through their NZ20 or Level 9 products with on-going management fees considerably higher than Smartshares and an on-going monthly membership fee

**Figure 32. Smartshares SWOT analysis**

Strengths	Weaknesses
Sole provider of ETFs - dominant position to grow scale	Current scale compared to international peers
Categorisation as listed PIE fund (tax set 28%)	Active funds advertising lower management fees
Partnerships with Blackrock, Vanguard	Current branding and marketing underinvested
Licence fee barrier to entry	Limited number of funds still
Lower total fee compared with low cost active funds	
Ability to invest directly through Smartshares (no broker fees)	
Opportunities	Threats
Advertise total expense ratio to grow Smartshare user numbers	Increased number of low cost active funds
Further partnerships with global players - defensively/offensively	Large growth attractive for global players
Additional range of funds - growth areas Thematics	Bearish market sentiment from COVID-19

Source: Forsyth Barr analysis

### Blackrock: friend or foe?

Smartshares entered into partnership with Blackrock with the launch of eight new ETFs from June 2019. This allows Smartshares to brand the funds with the iShares Blackrock name while the marketing cost is split between both parties.

Blackrock benefits by obtaining the international management fees associated with the fund while Smartshares profit through the distribution margin. This reduces the fixed costs for Blackrock associated with purchasing an FMA licence to enter the New Zealand market.

We would be unsurprised to see 1) further Blackrock/Smartshares partnered funds, 2) further partnerships between Smartshares and other global fund managers.

We view partnerships as a sensible defence mechanism against global firms entering the New Zealand market, deterred by the prospect of cannibalisation.

### Fee compression limited for now

Using Eikon data, the average fund in New Zealand charges a 1.28% management fee while Smartshares fund charges an average of 0.54%. In Australia, the average fund market fee is 1.41%, with the average ETF management fee 0.50%. This suggests that in management fees alone, Smartshares are already at a similar level to Australian ETFs, although the gap is larger for the more popular funds. However, we estimate the total expense ratio to be higher for Australian ETFs when we consider membership fees (Smartshares \$30 one-off payment) and broker fees (Smartshares invest directly with no cost to trade).

### Price elasticity

In the early stages of an expanding market with only one provider we see price elasticity of demand as being relatively low given the expected increase in underlying demand. Once the market becomes more saturated we believe increase in price sensitivity will follow, and in the long term NZX will have to balance fee compression with increased cash flows. For now, however, with a luxury of a growing market and as a sole provider, we do not expect immediate pressure on fees. Therefore, we expect annual fee compression to be no more than 1-2%. Given the comparison of total cost offerings, we view Smartshares as well placed to compete on price once the market does become more price sensitive.

### Risks

Short term risks include further entrants of low cost active funds replicating the passive index through an active vehicle. Although Smartshares total expense ratio is lower, active low cost funds charge a lower management expense ratio which is well advertised. The total expense ratio includes broking fees, membership fees and management fees. Although net cash flows for the 4 months to April 2020 have been at a similar level to the previous year, further COVID-19 disruption could change market sentiment and see a reduction in investor funds.

Longer term, a larger market would become more attractive for global ETF providers, although this risk is part-mitigated by partnerships and the fixed licence fee. This, however, would result in fee compression for Smartshares to attract further cash inflows.

## Attraction #4 COVID-19: large proportion of the business remains immune

Deemed an essential service, a large proportion of NZX remains immune to the effects of COVID-19. We estimate 36% of FY19 revenue to have a modest negative impact, 41% of the business to be unaffected and 23% of the group to experience a positive uplift.

**Figure 33. Breakdown of COVID-19 impacts across the business**

Revenue stream	% FY19 revenue	COVID-19	Impacts
Annual listing fees	15.2%	Negative	Dependent on total market cap 31 May annually. Index driven
Primary listing fees	1.6%	Negative	Likely deferrals for initial public offerings
Secondary issuance fees	6.1%	Positive	Secondary equity capital raises to benefit
Other issuer services	0.7%	Stable	Driven by both primary and secondary regulatory issues
Consulting & development	1.5%	Negative	Change requests and Electricity Authority projects likely to be slowed
Contractual revenue	12.5%	Stable	Fonterra and Electricity contracts unchanged
<b>Issuer Relationships:</b>	<b>37.7%</b>		
Participant services	5.8%	Stable	Member number driven, no COVID-19 impact
Securities trading	5.5%	Positive	Large benefit from increased volumes and value traded
Securities clearing	8.7%	Positive	Large benefit from increased volumes and value cleared
Dairy derivatives	2.2%	Positive	Slight uplift from volatility of commodity prices
<b>Secondary Markets:</b>	<b>22.2%</b>		
Royalties from terminals	8.9%	Stable	Shift from terminals to licences accelerated, high demand for financial data
Subscription and licences	5.3%	Stable	Shift from terminals to licences accelerated, high demand for financial data
Dairy data subscriptions	1.0%	Stable	No immediate impact from COVID-19
Indicies revenue	1.2%	Stable	No immediate impact from COVID-19
Audit and back dated licences	1.9%	Stable	Back dated revenue collected from previous three years – little impact
Other	0.1%	N/A	Fundsource sold June 2019
<b>Data and Insight:</b>	<b>18.4%</b>		
FUM based revenue	14.3%	Negative	Average FUM over the year. Globally and domestic market index driven
Member based revenue	3.4%	Stable	Investor numbers unlikely to change, albeit increase on re-bound
Other	0.8%	Negative	Insurance products may see slight decrease over period
<b>Funds Under Management:</b>	<b>18.5%</b>		
Administration FUA fees	2.2%	Negative	Average FUA over the year – smaller decline than FUA due to mix of assets
Development fees	0.2%	Negative	Modest negative impact expected
<b>Wealth Technologies:</b>	<b>2.4%</b>		

Source: Forsyth Barr analysis

### 36% of FY19 revenue negatively impacted

Index-driven elements of the business are the most exposed to the negative impacts of COVID-19. We believe the largest negative impact to be in Smartshares, with 40% of total value exposed to global equities and 28% exposed to New Zealand equities. Total FUM fell 16% from January to March 2020, with the NXZ 50 Capital Index falling 17% in the same period.

Fees are generated as an average across the year and we take comfort from 1) FY19 tailwind from January and February, 2) 32% exposure to cash and debt markets, 3) continued net cash inflows during the period currently at similar levels to the prior year.

Given the market decline in recent weeks, expectations for the FY20E annual listing fee have also fallen, underpinned by the total level of market capitalisation at 31 May each year. Presently, we expect the FY20 fee to be marginally higher than the previous year.

### 41% of business unaffected

The data division makes up 18% of FY19 revenues while Fonterra and EA contracts make up 13%. These large contributors see no change in addition to the 6% contribution from the secondary markets participation fee.

### Could we have a Bonanza year?

Although secondary markets has seen significant uplift, volatility has started to slow while the number of secondary capital raises have been softer than expected. At this point in time we expect negative impacts to marginally outweigh positive uplifts.

## Valuation

Since the arrival of the current management team in 2017, the stock has performed well in the later period, reflecting ongoing margin improvement and a strong result in FY19. With the impact of COVID-19 reducing the stock 35% from a high of NZ\$1.46, the share price has been more volatile in recent weeks, partially re-rating in April.

Our target price is derived from a discounted cash flow, with a target price NZ\$1.57, with the principal drivers the Funds Under Management and Wealth Technologies businesses. We believe the company can sustain long-term earnings growth given the exposure to a number of structural growth trends across the business and limited competition in niche markets.

### Discounted cash flow

We use a discounted cash flow (DCF) to value NZX, rolled forward at the cost of equity less dividends to be paid over the next 12 months.

**Figure 34. Discounted cash flow target price**

	Valuation	Rolled Forward	Dividends	Target price
DCF	1.51	1.63	0.06	1.57

Source: Forsyth Barr analysis

Our forecasts assume NZX will deliver earnings growth in line with targets for FY23E. In the short term the group has a well balancing contribution of earnings growth from all five divisions, while in the longer term the prominent growth drivers are the Smartshares and Wealth Technologies divisions. We take a conservative approach to the Wealth Technologies business with further contracts wins a likely catalyst for the stock.

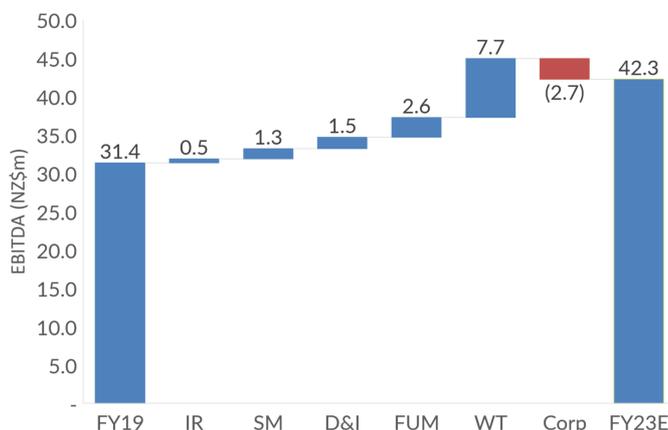
Our terminal value is based on a terminal growth assumption of 1.5% pa with forecast cash flows to FY30E shown below. Our forecast FY23E EBITDA margin is NZ\$42.3m against the company's five year aspirational target range of NZ\$42m to NZ\$54m.

**Figure 35. NZX Discounted cash flow FY20E to FY30E**

NZ\$m	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	Terminal
Revenue	71	76	83	89	93	98	104	110	115	120	126	
EBITDA	31	34	38	42	44	47	49	52	55	57	60	
EBITDA margin	44%	45%	46%	48%	48%	48%	48%	48%	48%	48%	48%	
Change in WC	(0)	(0)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
Capex	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(11)	(11)	(11)	(11)	
Taxation	(6)	(7)	(8)	(9)	(9)	(10)	(11)	(11)	(12)	(13)	(14)	
Cash flow	16	18	20	23	25	26	28	30	32	33	35	541
Discount factor	0.99	0.91	0.85	0.78	0.72	0.67	0.62	0.57	0.53	0.49	0.45	0.45
Discount cash flow	16	16	17	18	18	18	17	17	17	16	16	246

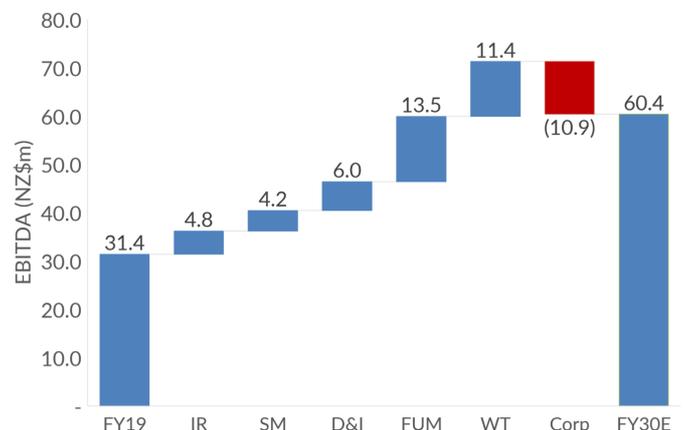
Source: Forsyth Barr analysis

**Figure 36. EBITDA growth FY19 to FY23E by division**



Source: Forsyth Barr analysis

**Figure 37. EBITDA growth FY19 to FY30E by division**



Source: Forsyth Barr analysis

### WACC estimate for NZX

We estimate a WACC of 8.1% with assumptions shown below. We estimate an asset beta of 0.85 in light of diversified revenue streams, relatively cyclical nature of the business, the level of operational leverage, growth profile and role as an essential operator.

**Figure 38. WACC estimate NZX**

Risk free rate	2.00%
Market risk premium	7.50%
Debt risk premium	1.6%
Target gearing	0.0%
Asset beta	0.85
Cost of debt	3.6%
Cost of equity	8.1%
<b>WACC</b>	<b>8.1%</b>

Source: Forsyth Barr analysis

**Figure 39. Implied share price NZX (NZ\$ '000)**

<b>Present value</b>	<b>432,382</b>
Net (debt) Dec 2019	8,888
Timing adj	46
Capitalised leases	(22,052)
Implied market cap	419,265
Number of shares in issue (m)	277
Implied share price (NZ\$)	1.51

Source: Forsyth Barr analysis

### DCF sensitivity

We outline key DCF sensitivities below.

**Figure 40. Key DCF sensitivities**

	Sensitivities	Impact on DCF (NZ\$)
Terminal margin assumption	+/-100bp	0.03/-0.04
Terminal growth rate	+/-1%	0.17/-0.13
Asset beta	+/-5bp	-0.09/0.10

Source: Forsyth Barr analysis

### Peer multiples

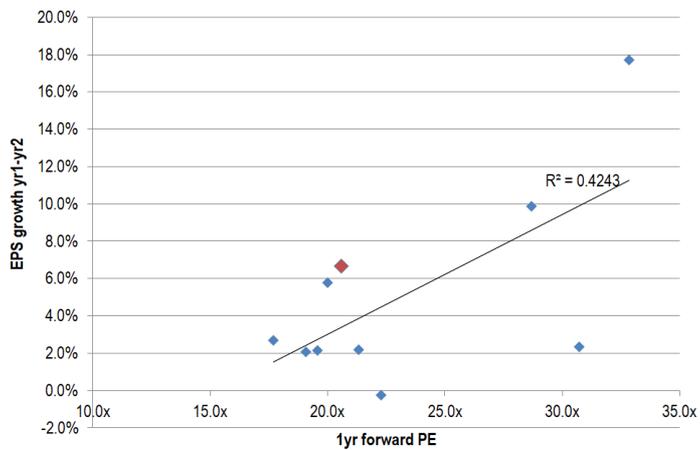
Given recent volatility in global markets, at this stage we do not use peer multiples to calculate our target price. However, given an EPS growth rate of 6.7% between yrs 1-2 whilst trading at 20.6x 1 yr forward PE, NZX looks attractive vs. its global peer group. NZX's discount vs peers is not materially different from historic average levels. However, we believe the business to have turned a corner with the proof point the FY19 result and outperformance of the NZX 50 Capital Index over the last 12 months.

**Figure 41. International peer multiples**

Company	Ticker	Share Price	Div Yield	PE 1-yr fwd	EV/EBIT 1-yr fwd	EV/EBITDA 1-yr fwd	EPS growth y1-y2
NZX Ltd	NZX.NZ	NZD1.27	4.9%	20.6x	15.0x	10.9x	6.7%
ASX Ltd	ASX.AX	AUD81.93	2.9%	30.7x	23.5x	21.8x	2.3%
London Stock Exchange Group	LSE.L	GBP74.70	1.0%	32.8x	22.3x	17.8x	17.7%
Hong Kong Exchanges and Clearing	0388.HK	HKD245.60	3.0%	28.7x	15.5x	14.8x	9.9%
Nasdaq Inc	NDAQ.O	USD106.62	1.8%	19.1x	14.8x	14.3x	2.1%
Singapore Exchange Ltd	SGXL.SI	SGD9.49	3.4%	22.3x	18.3x	15.7x	-0.2%
TMX Group Ltd	X.TO	CAD120.29	2.2%	20.0x	17.1x	15.0x	5.8%
Euronext NV	ENX.PA	EUR76.60	2.7%	17.7x	14.0x	12.6x	2.7%
Intercontinental Exchange Inc	ICE.NB	USD88.67	1.3%	19.6x	17.4x	15.2x	2.2%
Deutsche Boerse AG	DB1Gn.DE	EUR141.05	2.2%	21.3x	16.6x	14.5x	2.2%

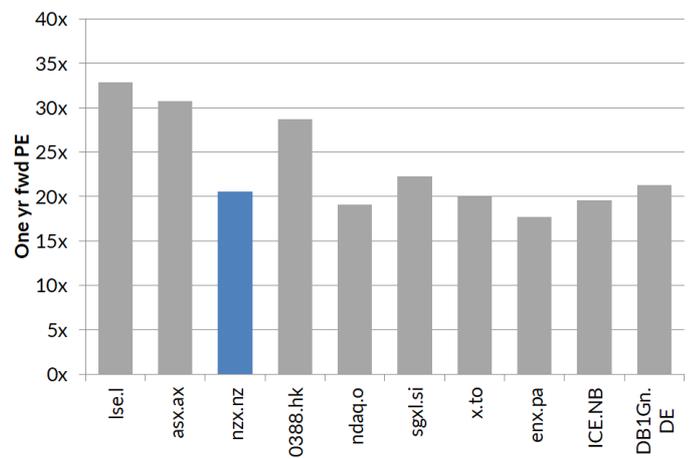
Source: Forsyth Barr analysis

**Figure 42. EPS growth 1-2yr vs 1 yr fw PE vs peers**



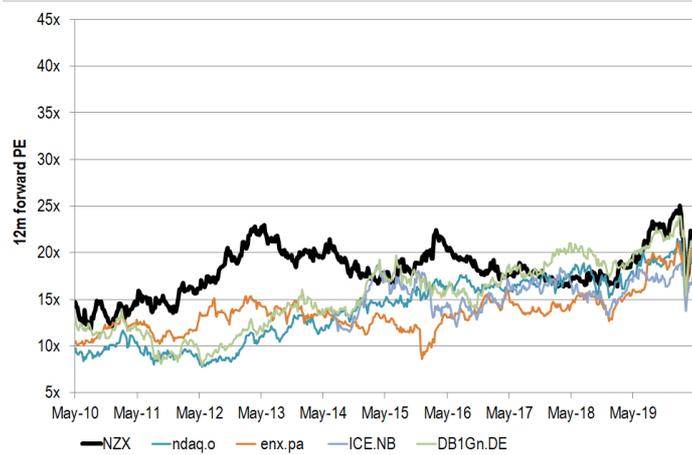
Source: Forsyth Barr analysis

**Figure 43. One yr fwd PE vs peers**



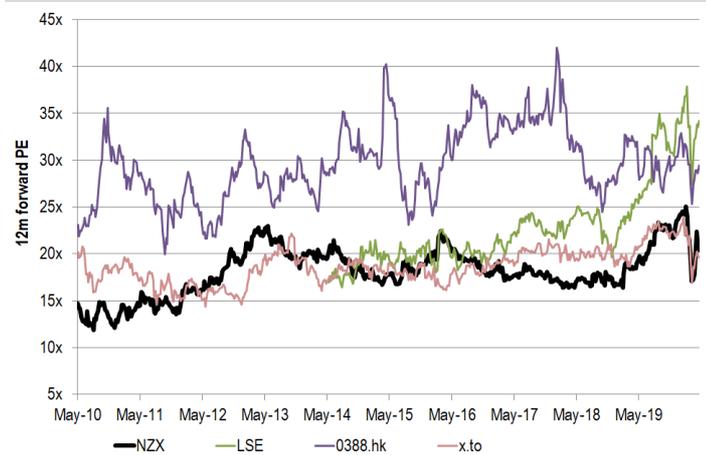
Source: Forsyth Barr analysis

**Figure 44. 1 yr fw PE history vs peers yr1-2 EPS growth <3.3%**



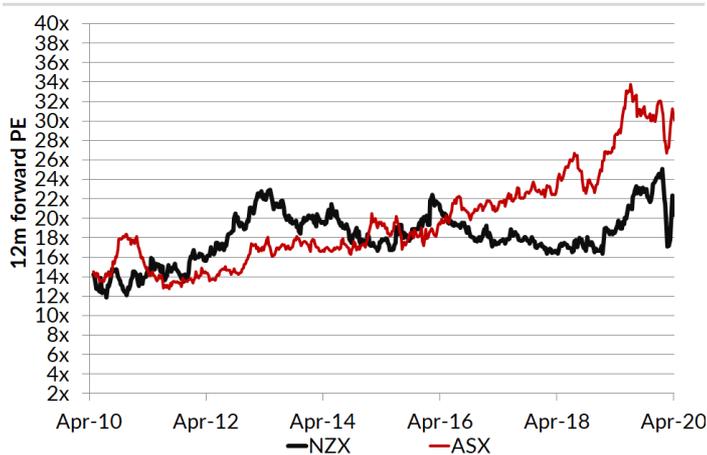
Source: Forsyth Barr analysis

**Figure 45. 1 yr fw PE history vs peers yr1-2 EPS growth >6.7%**



Source: Forsyth Barr analysis

**Figure 46. 10 year, 12 m fw PE ASX vs NZX**

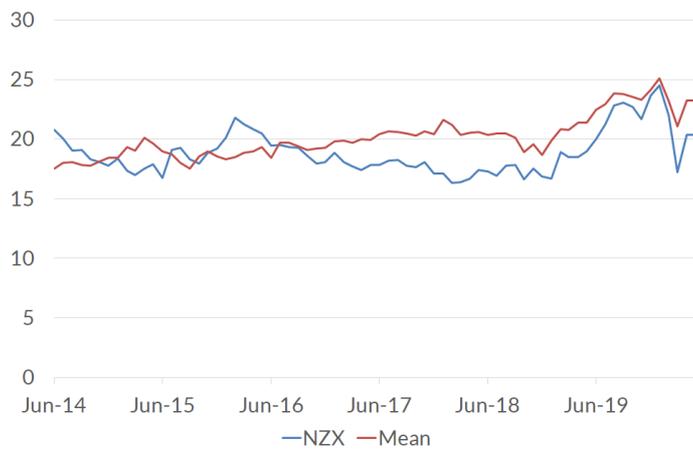


Source: Forsyth Barr analysis

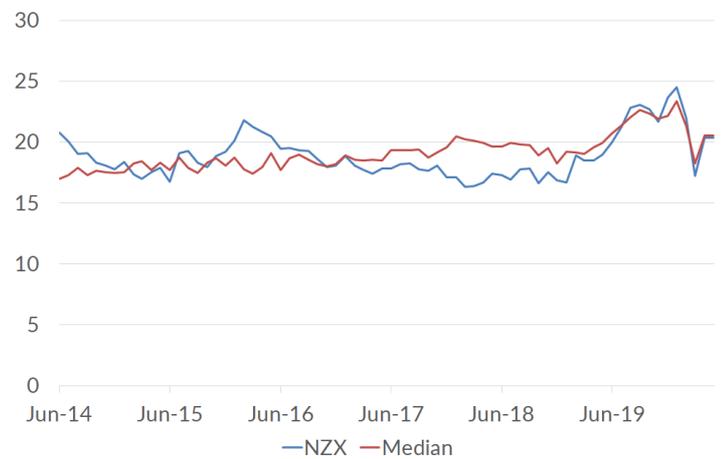
**Figure 47. 12 mth index NZX.NZ vs NZX 50 Capital Index**



Source: Forsyth Barr analysis

**Figure 48. 10 year, 12 m fw PE peer mean vs NZX**


Source: Forsyth Barr analysis

**Figure 49. 10 year, 12 m fw PE peer median vs NZX**


Source: Forsyth Barr analysis

### Health of the business

We do not see risk of genuine distress for the business in a further downside scenario. Beyond the stability of business model and diversified number of revenue streams, the covenants for the business also show a significant level of headroom.

**Figure 50. NZX Covenants**

Covenant	Limit	FY19	FY20E
Interest bearing debt: EBITDA	below 3.5x	1.2x	1.2x
EBITDA: interest paid	above 4x	10.5x	10.6x
Net senior debt: operating earnings	below 1.5x	None	None

Source: Forsyth Barr analysis

## 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.

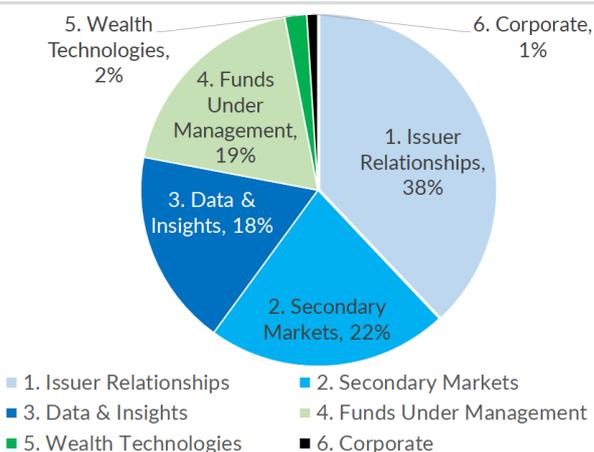
### Upcoming catalysts/events

- **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

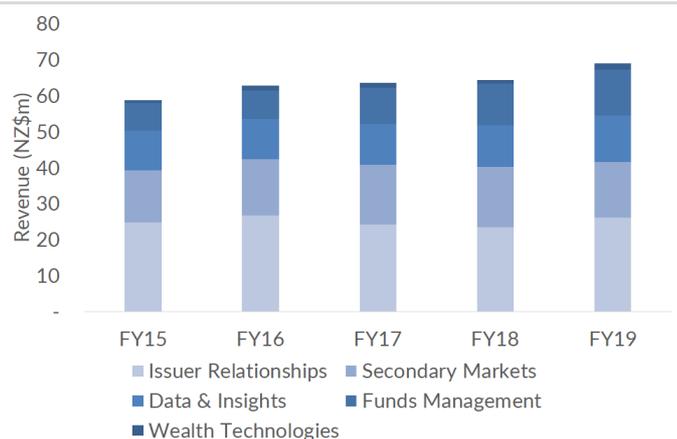
- **Market slowdown:** Earnings growth is reliant on an active market in trading and capital raising. Any economic or market slowdown would create a material headwind.

**Figure 51. Revenue breakdown FY19**



Source: Forsyth Barr analysis

**Figure 52. Revenue growth by division FY15–FY19**



Source: NZX, Forsyth Barr analysis

**Figure 53. Price performance**


Source: Forsyth Barr analysis

**Figure 54. Substantial shareholders**

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

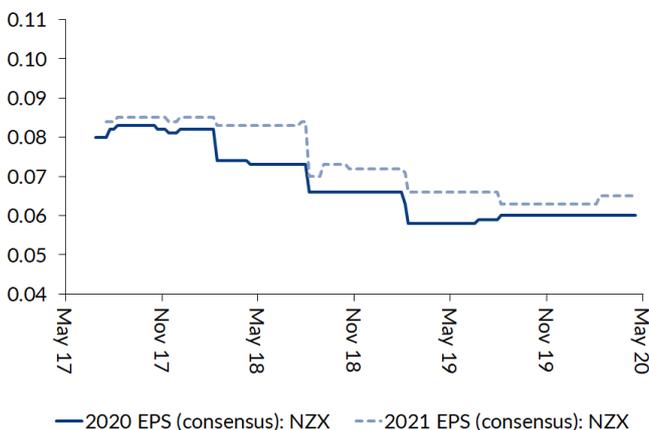
Source: NZX, Forsyth Barr analysis, NOTE: based on SSH notices only

**Figure 55. International valuation comparisons**

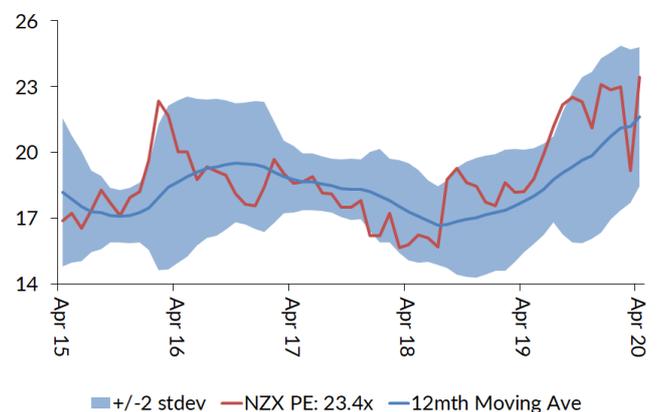
Company	Code	Price	Mkt Cap (m)	PE		EV/EBITDA		EV/EBIT		Cash Yld 2021E
				2020E	2021E	2020E	2021E	2020E	2021E	
NZX	NZXNZ	NZ\$1.27	NZ\$352	24.1x	21.1x	11.0x	10.0x	15.4x	13.5x	4.8%
ASX	ASXAT	A\$83.00	A\$16,068	31.4x	30.5x	22.4x	21.4x	24.1x	23.2x	3.0%
CME GROUP INC	CME US	US\$184.32	US\$66,075	24.0x	24.8x	18.8x	19.6x	19.7x	20.2x	3.8%
NASDAQ INC	NDAQ US	US\$111.21	US\$18,277	20.0x	19.6x	15.0x	14.6x	n/a	n/a	1.8%
LONDON STOCK EXCHANGE GROUP	LSE LN	£74.88	£26,316	34.5x	29.3x	20.5x	13.8x	23.9x	18.3x	1.1%
DEUTSCHE BOERSE AG	DB1 GR	€138.95	€26,401	21.3x	20.8x	14.3x	13.8x	16.2x	15.9x	2.4%
INTERCONTINENTAL EXCHANGE IN	ICE US	US\$90.29	US\$49,582	20.3x	19.8x	15.4x	15.0x	18.0x	17.5x	1.4%
TMX GROUP	X CN	C\$122.36	C\$6,890	20.8x	19.5x	16.7x	13.0x	17.8x	16.6x	2.3%
HONG KONG EXCHANGES & CLEAR	388 HK	HK\$252.60	HK\$320,256	30.5x	27.8x	15.9x	14.5x	16.7x	15.1x	3.2%
SINGAPORE EXCHANGE	SGX SP	S\$9.73	S\$10,410	22.8x	22.6x	15.9x	15.8x	18.6x	18.6x	3.5%
<b>Compc Average:</b>				<b>25.1x</b>	<b>23.8x</b>	<b>17.2x</b>	<b>15.7x</b>	<b>19.4x</b>	<b>18.2x</b>	<b>2.5%</b>
<b>NZX Relative:</b>				<b>-4%</b>	<b>-11%</b>	<b>-36%</b>	<b>-36%</b>	<b>-21%</b>	<b>-26%</b>	<b>91%</b>

EV = Current Market Cap + Actual Net Debt

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

**Figure 56. Consensus EPS momentum (NZ\$)**


Source: Forsyth Barr analysis

**Figure 57. One year forward PE (x)**


Source: Forsyth Barr analysis

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