



NZSUPERFUND

*Te Kaitiaki Tahua Penihana
Kaumātua o Aotearoa*

TITLE:

Climate Change – Investment Megatrend

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EVENT | PRESENTATION:

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Climate is a tragedy of the horizon which imposes a cost on future generations that the current one has no incentive to fix."

MARK CARNEY
GOVERNOR OF THE BANK OF ENGLAND



Climate change could threaten the stability of the entire financial system."

GEOFF SUMMERHAYES
AUSTRALIAN PRUDENTIAL
REGULATION AUTHORITY
BOARD

FOUR RISKS

TECHNOLOGY



RESOURCE AVAILABILITY



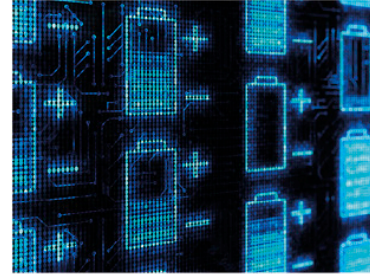
IMPACT



POLICY

FOUR SCENARIOS

TRANSFORMATION



COORDINATION

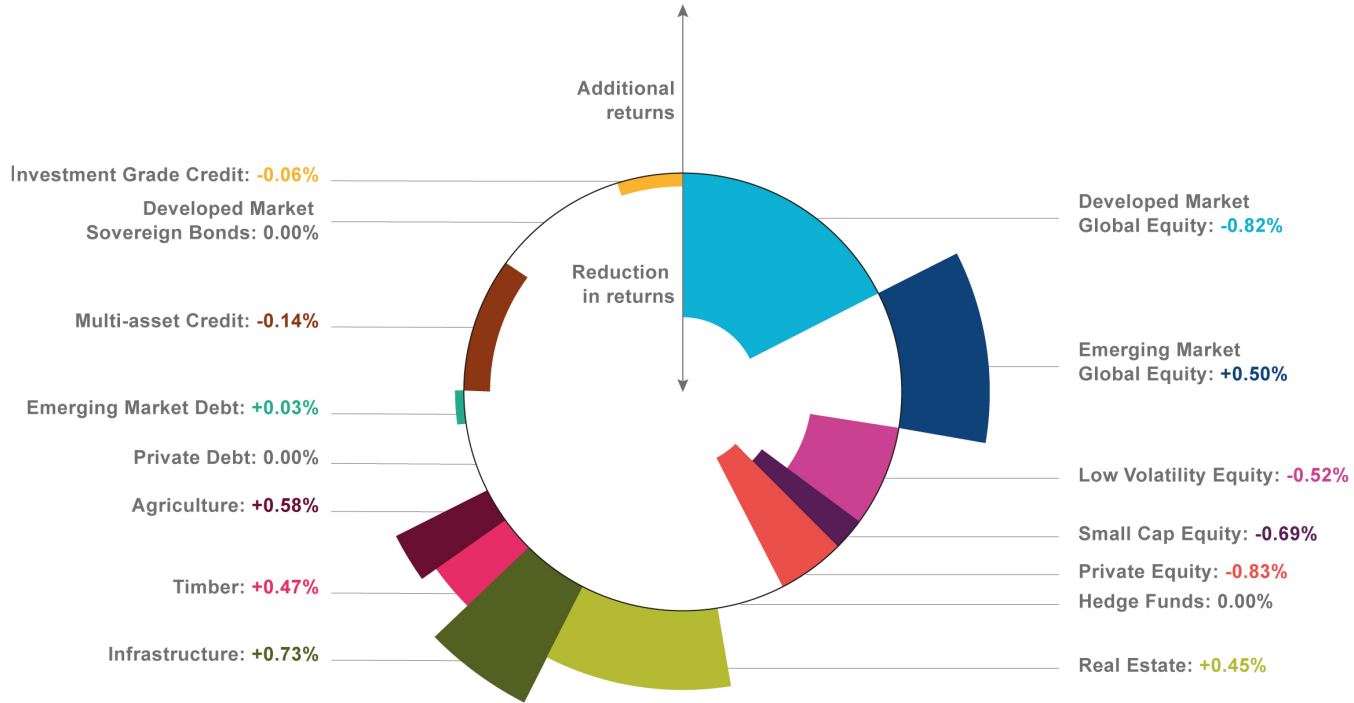


FRAGMENTATION (LOW DAMAGES)

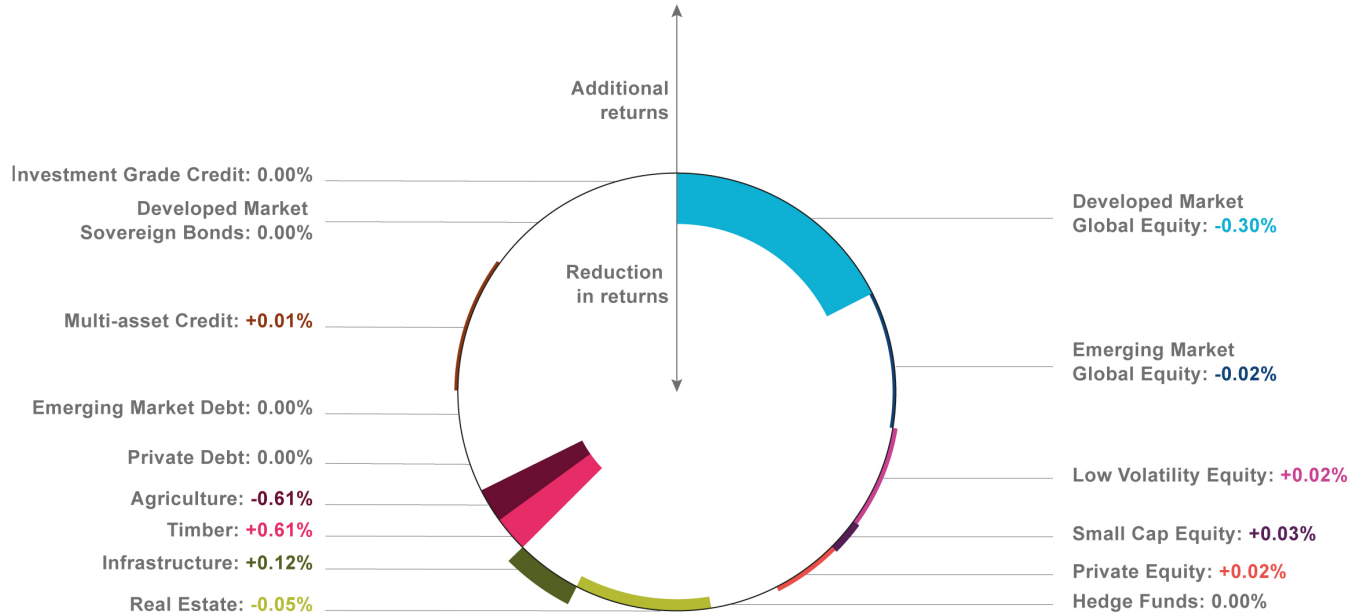


FRAGMENTATION (HIGH DAMAGES)

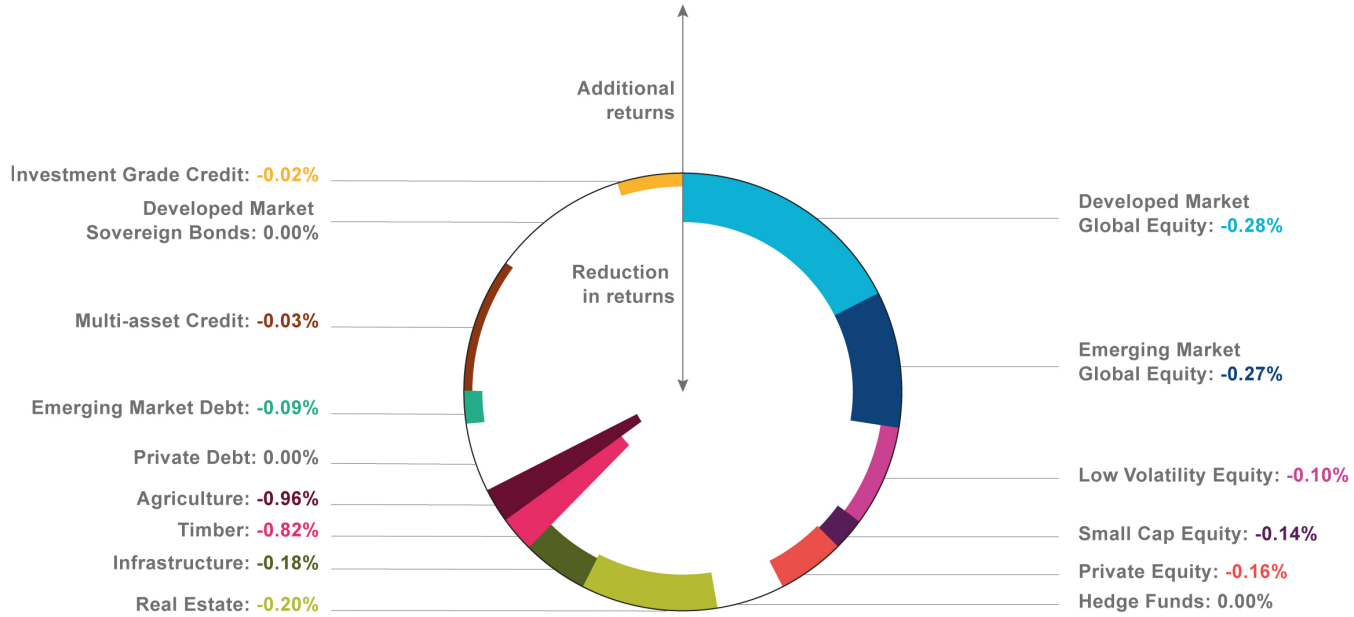
Median annual return impact over 10 years



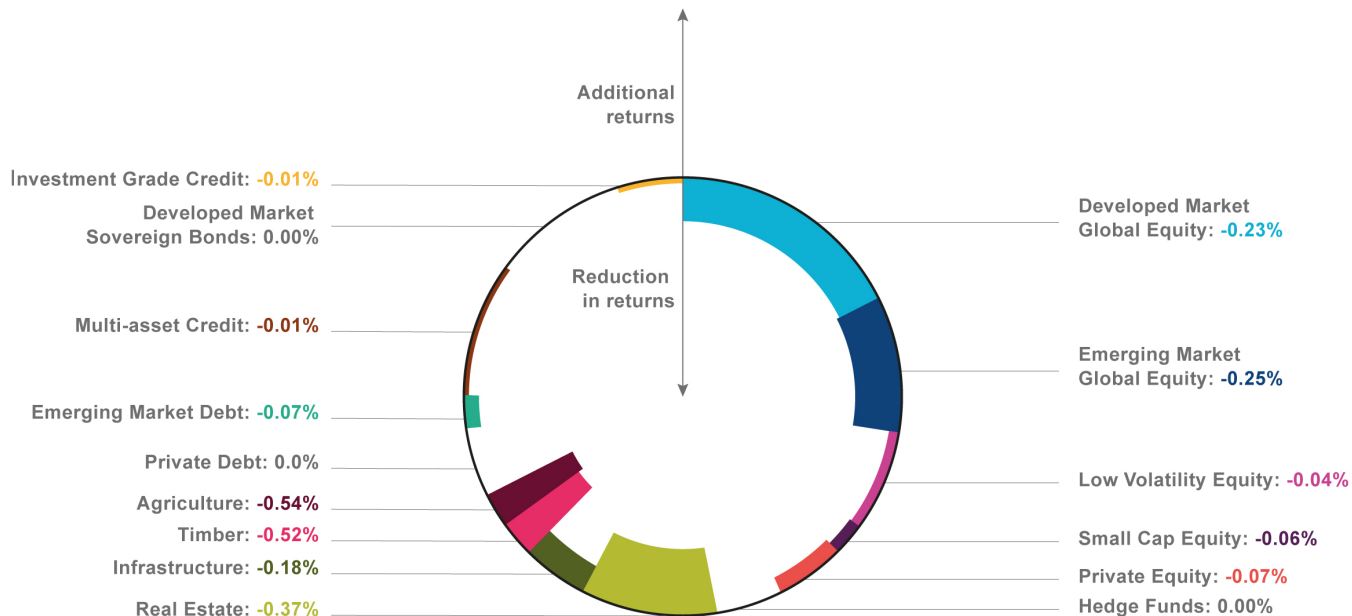
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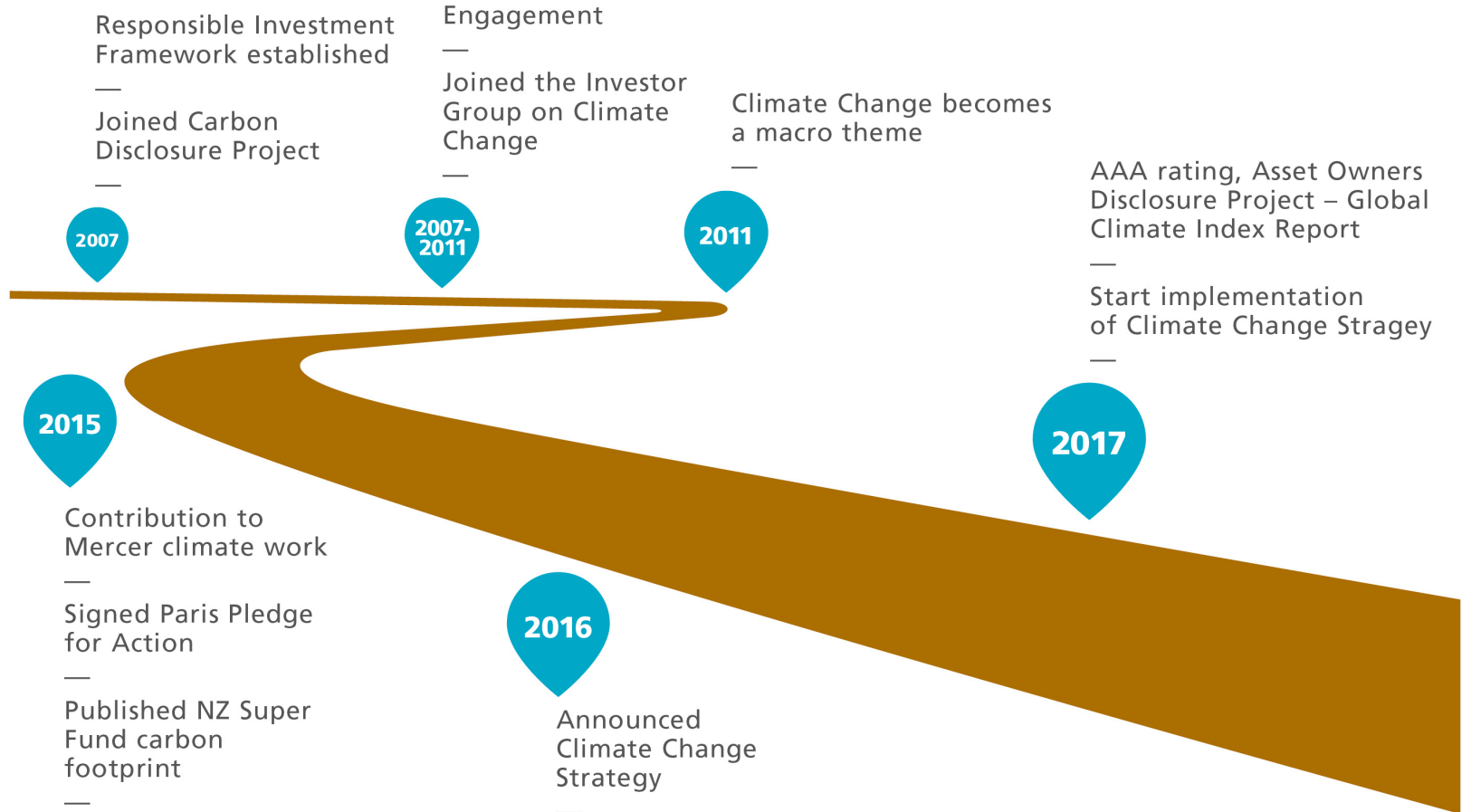
Median annual return impact over 10 years



Median annual return impact over 10 years



Our journey – We didn't start yesterday



So many questions

Carbon foot printing – where do we start? What are we comparing?

Data availability and accuracy

Is tracking error important?

How to factor into our risk allocation process?

What's the impact on our active strategies?

Is it already in the price?

Metrics – what are the right measures of this risk?

Voting – what policy changes do we need?

How do we deal with unlisted assets?

External Managers – what do we require?

What do we need to do with our selection process?

How do we think about benchmarks? Do we need new ones?

MSCI rating system – how do we use this, if at all?

Divestment or not; individual companies vs broader portfolio?

Valuations – how do we incorporate climate risk in our hurdles and risk allocation?

Why we think markets have trouble pricing climate change risk

Figure 2: Climate Impact on Returns by Industry Sector (35 Years)

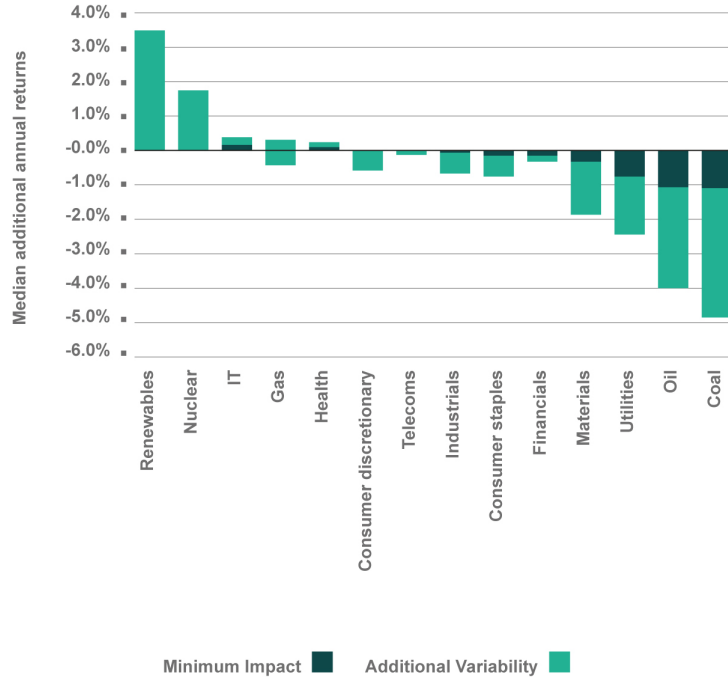
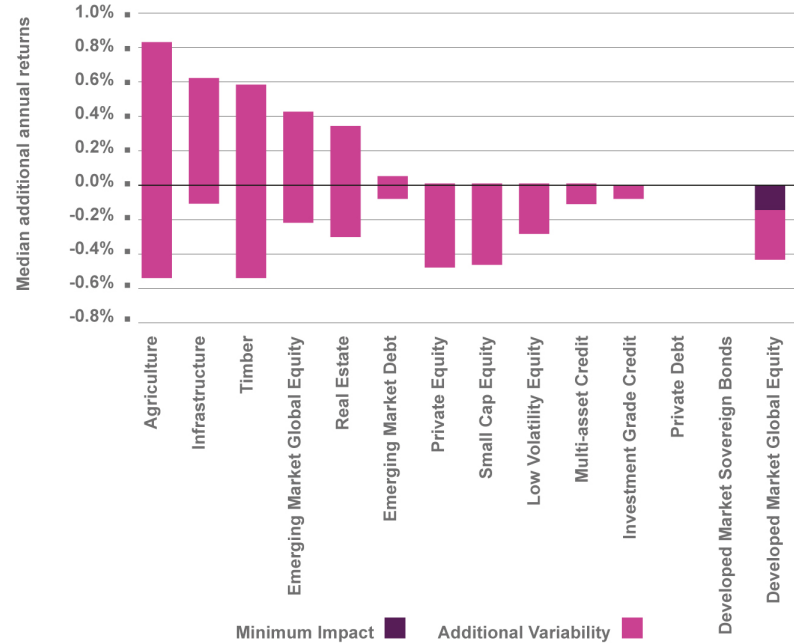


Figure 11: Climate Impact on Returns – by Asset Class (over 35 Years)



NZ Superannuation Fund – Climate Change Strategy

GOAL



A portfolio more resilient to climate related risks.

TARGET



By 2020
 Reduce Carbon emission intensity of Fund by 20%
 Reduce carbon reserves by 40%

PRINCIPLES



Whole portfolio
 Consistency
 Best tools

OUR CLIMATE CHANGE STRATEGY



REDUCE

Reduce exposure to fossil fuel reserves and carbon emissions.



ANALYSE

Incorporate climate change into our analysis and decision making.



ENGAGE

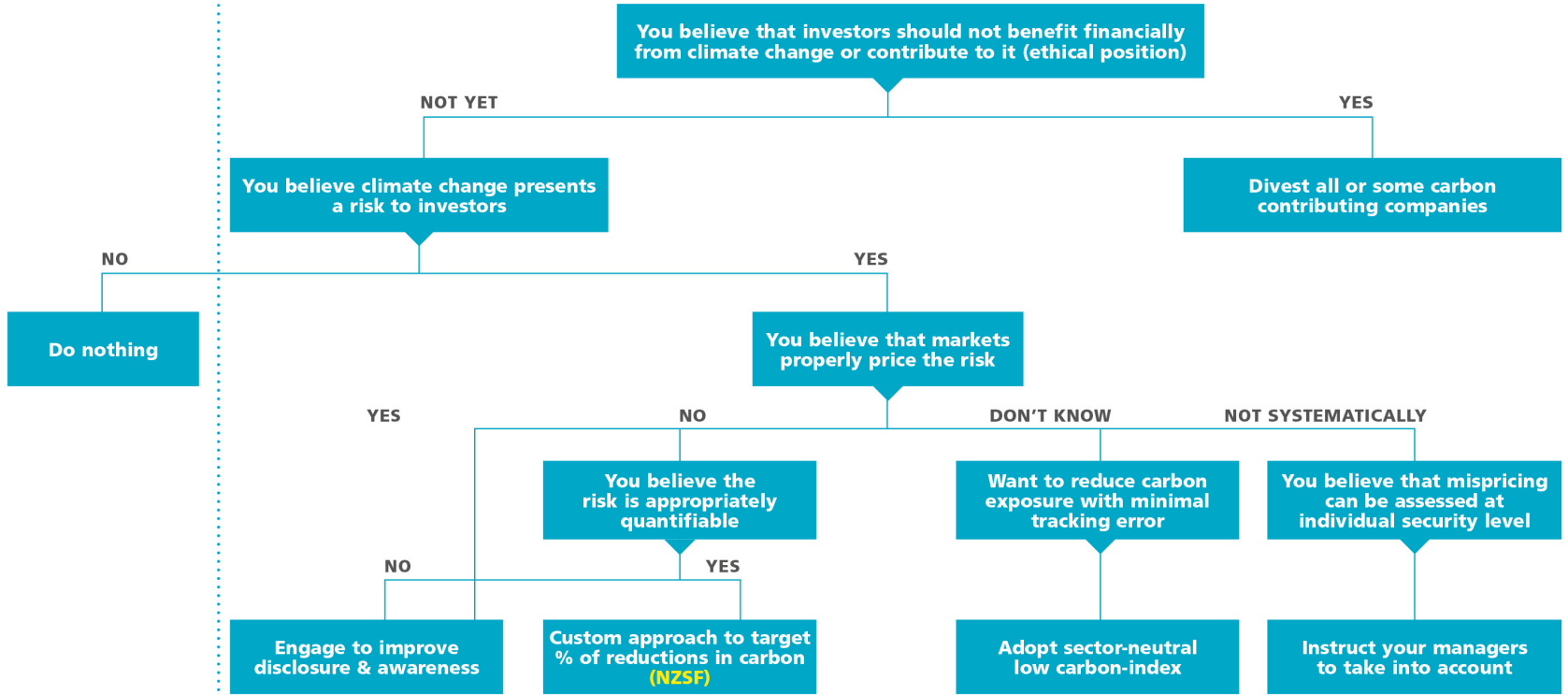
Manage climate risks by being an active owner through voting and engagement.



SEARCH

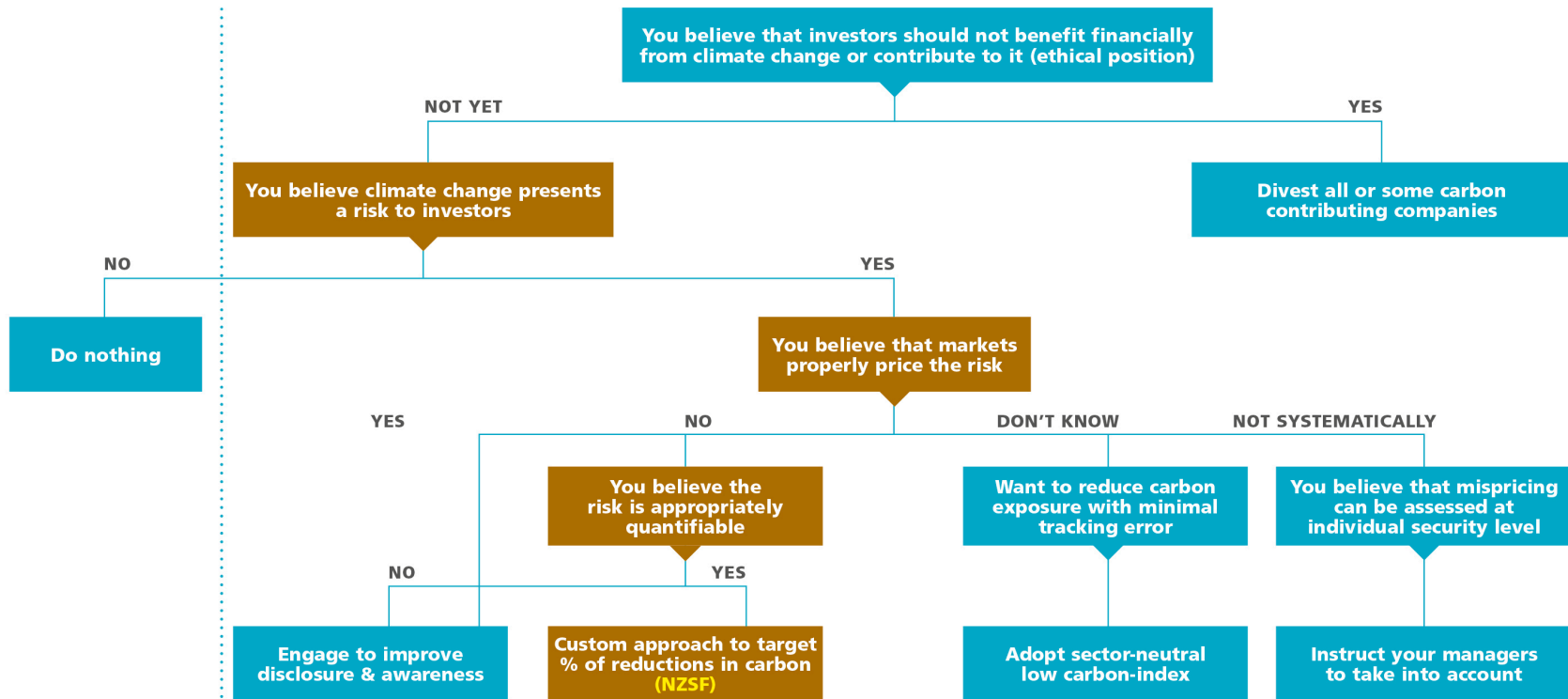
Actively seek new investment opportunities, for example in renewable energy.

Climate Change Action – A possible decision tree



- ON THIS SIDE OF THE DOTTED LINE, YOU WILL:**
- 01.**
Analyse impact at market and security level (and have managers do this)
 - 02.**
Engage on climate change expectations of companies
 - 03.**
Vote according to climate change policy
 - 04.**
Search for opportunities

Climate Change Action – Our decision tree

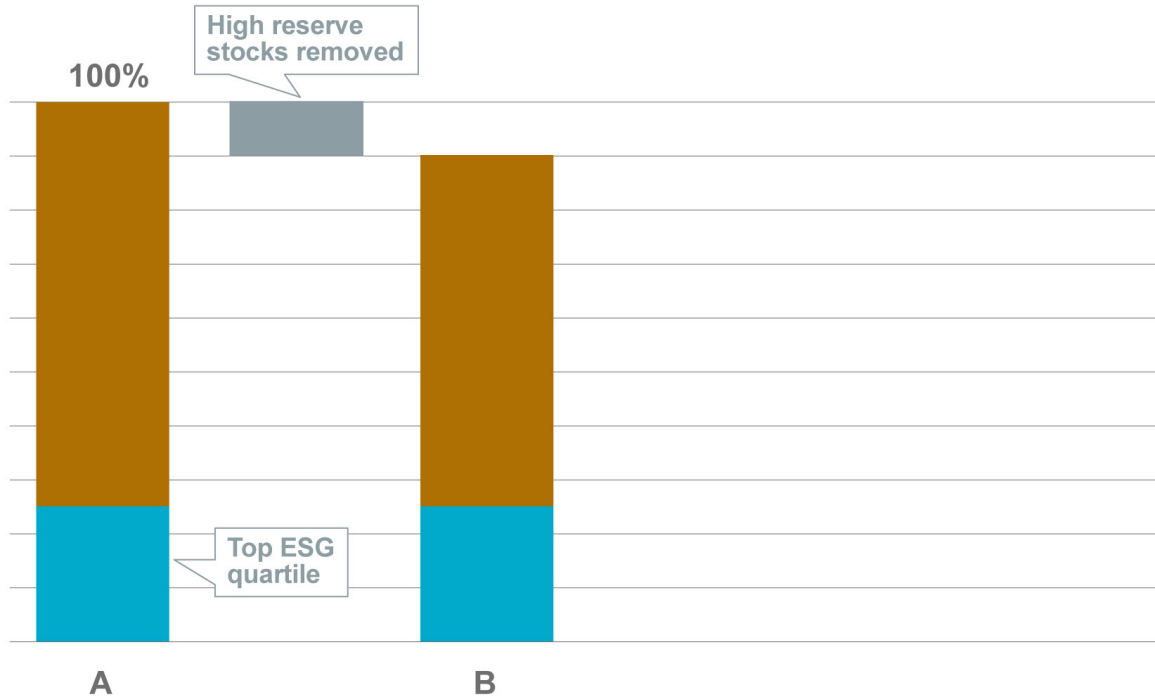


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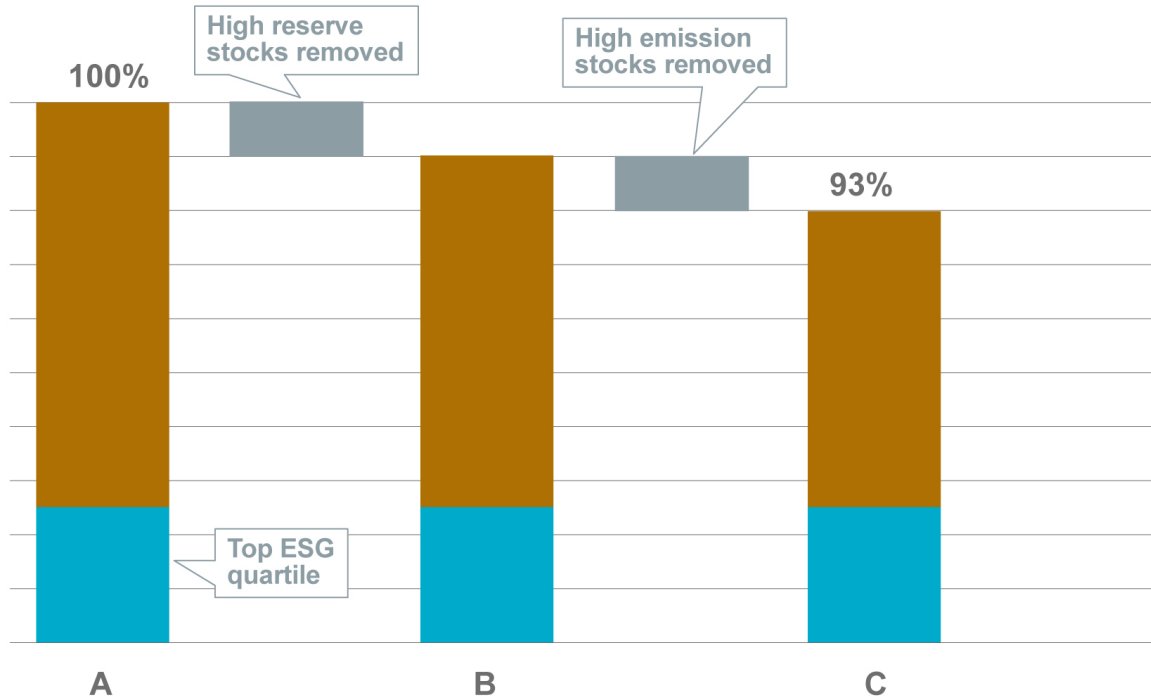
Implementing our listed equities carbon reduction



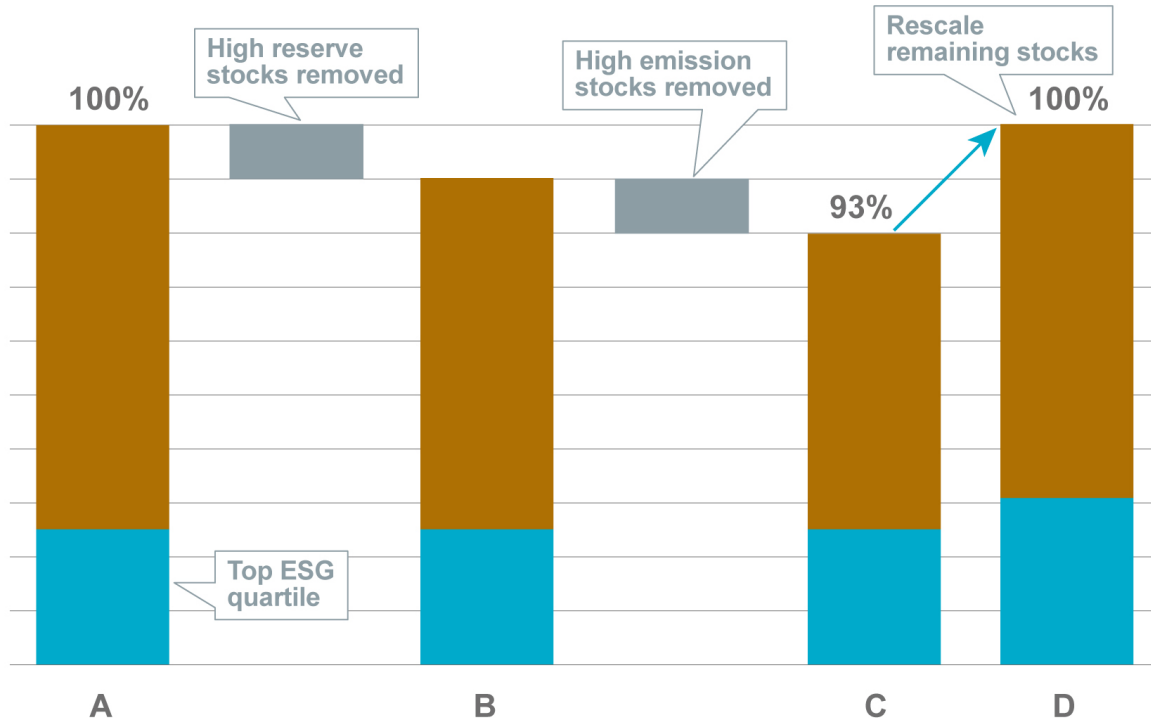
Implementing our listed equities carbon reduction



Implementing our listed equities carbon reduction

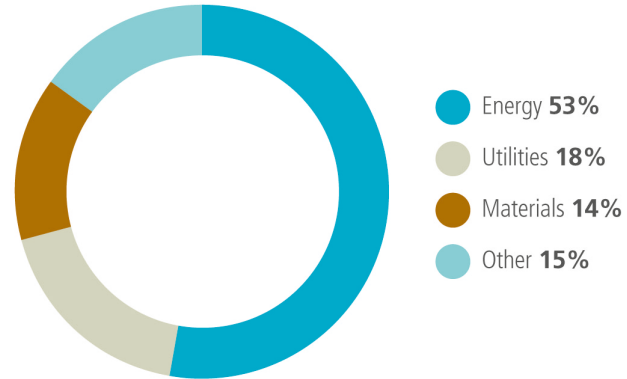


Implementing our listed equities carbon reduction



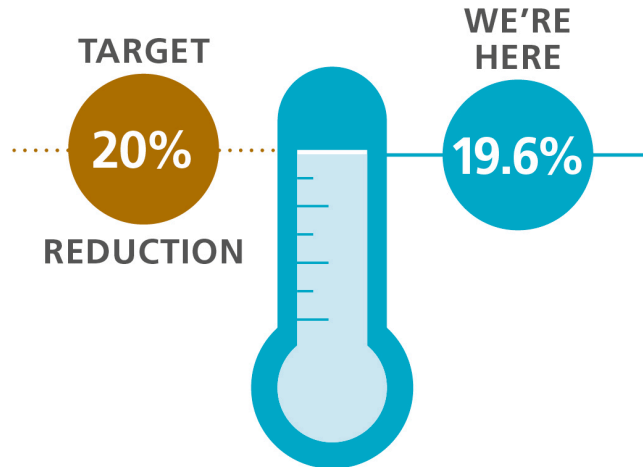
- NZ\$950 million of passive equities sold
- 297 companies
- 3% of Fund

**BREAKDOWN BY SECTOR
OF PASSIVE EQUITIES SOLD**

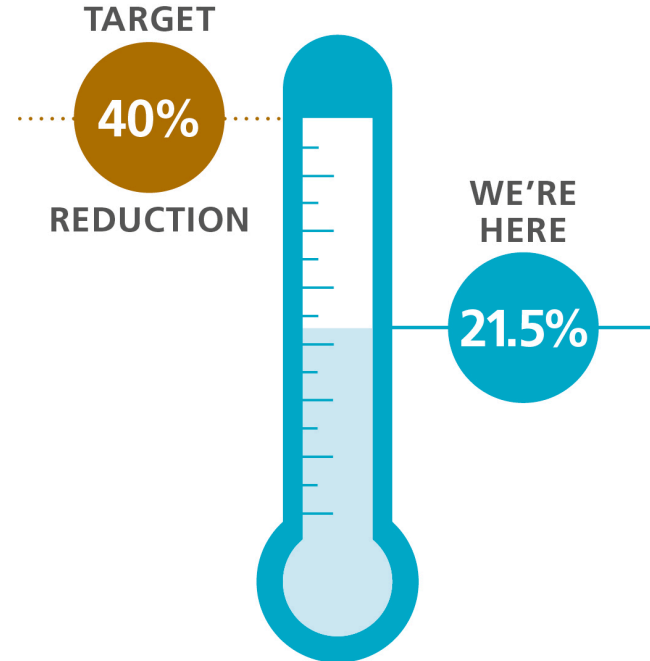


Fund carbon footprint

CARBON EMISSIONS INTENSITY



CARBON RESERVES





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