

NZ SUPER FUND CARBON REDUCTION - Q&A

15 August 2017

What is the Fund's carbon footprint?

We define the Fund's carbon footprint as including both carbon emissions intensity and carbon reserves:

- For the Fund as a whole: Intensity 198 (t CO₂e/\$USm Sales), Reserves 2166 (t CO₂e/\$USm)
- For the passive physical equity portfolio: Intensity 114 (t CO₂e/\$USm Sales), Reserves 956 (t CO₂e/\$USm)
- Reference Portfolio Equity (for comparison): Intensity 247 (t CO₂e/\$USm Sales), Reserves 2760 (t CO₂e/\$USm)

See our Carbon Footprint document for further information.

How has the Fund's carbon footprint changed as a result of this move?

The Fund's carbon emissions intensity has reduced by 19% and its carbon reserves exposure by 21%. See our Carbon Footprint document for further information.

How has the composition of the Fund's portfolio changed?

- The Fund's global equity exposure to the energy, materials, utilities, industrials and consumer staples sectors has been reduced and its exposure to the telecommunications, consumer discretionary, information technology, health care and financial sectors has increased.
- Passive holdings in 297 companies totalling NZD950m have been sold. 288 were sold as at 30 June 2017 and a further 17 were sold by 20 July 2017 (some stocks were sold during both periods). Of these 297 companies, the Fund retains (as at 21 July 2017) stakes in 160 of them via active mandates, totalling NZD189m (0.53% of 30th June 2017 Fund net asset value).
- As at 20 July 2017, 66 of the 77 passively-held companies with coal reserves have been sold, covering 86% of total coal reserves in the passive physical equity portfolio.
- The carbon-reduction methodology targeted high-emission utilities for removal from the Fund's passive physical equity portfolio. These stocks generate 75% of emissions created by the utility sector and 30% of the total emissions for the passive physical equity portfolio. As a result of this change, 81 stocks totalling \$172m were sold from the passive portfolio.
- As at 30 June 2017, the Fund had 5,997 stocks in its passive physical global equity portfolio. The 297 stocks sold represent 5% of this portfolio and 3% of the overall Fund.

See our Summary Information and Carbon Footprint documents for further detail.

Why are you making the Fund more resilient to climate change risk?

Climate change presents material, uncompensated risks to long-term investors. In coming years, the global energy system will transition away from fossil fuels. Assets presently delivering good returns may become uneconomic, obsolete or face a dwindling market due to consumer preferences. Others may face regulatory hurdles, such as the introduction of carbon pricing or carbon limits. Reducing exposure to carbon-intensive investments will make the Fund more resilient to these risks.

The Mercer climate change study that we participated in during 2015 found that the biggest risk to investors from climate change was to be on the wrong side of strengthening global policy and/or technological disruption. Mercer found that investors who got ahead of the curve could mitigate the potential downside.

In the shift to a low-carbon economy we want to play to the Fund's natural long-term horizon and liquidity advantages. This means investing in better-managed firms and/or opportunities while they are reasonably priced and avoiding those with greater downside risk. We believe that now is the right time to act. Even if there remains some uncertainty about global policy, its general direction is consistent with meaningful carbon reductions.

How do you quantify climate change risk?

There are multiple, interacting drivers, including the physical effects of climate change and regulatory action designed to address these risks. The impact of climate change is felt variably across different investment sectors, geographies and asset classes.

For example, companies with higher carbon emissions are more at risk of regulatory measures, including carbon pricing. Companies owning fossil fuel reserves may see these assets devalue as policies are brought in to reduce emissions and as they face technological disruption. It is not just the energy sector that is affected, however; climate change risk directly and indirectly influences other sectors through revenues, operations, expenses, supply chains and distribution.

We believe that the current market is not fully pricing in the potentially negative impact of climate change policy on asset valuations, over the long timeframes that are relevant to us. Reducing the Fund's exposure to the assets which will be most affected will help us manage this risk.

What will be the impact on the Fund's returns in the short term?

It is impossible to predict short-term market returns. In line with the Fund's mandate, our focus is on the long term. Climate change presents current and future risks, and we believe reducing exposure to carbon emissions and reserves will be good for the portfolio in the long run.

Why didn't you exclude the whole coal sector in the way others have, and in the way you have done with tobacco, for example?

We have not approached this as an ethically-based exclusion strategy: our focus is on mitigating investment risk. By reducing exposure to utilities as well as coal, gas and oil across the Fund's entire passive portfolio, we have taken a broader approach to the issue than many peers. We believe this is the optimal way of managing climate change investment risk for our fund. We have chosen to retain some companies which, based on independent data from MSCI ESG Research, we consider to be the best performers on climate change risk in their sectors.

What if the anticipated regulatory changes happen more slowly than expected, or don't happen at all?

In that eventuality, given that we have been careful not to undermine portfolio diversification, there is limited downside risk for the Fund – in that case, we will have simply sold fairly priced assets for other fairly priced assets. If, as expected, policy action does follow, the Fund will be protected from those changes. The portfolio will also be more resilient in terms of the physical impacts of climate change. We do not believe the market is overpricing the risk.

Will the changes have any material impact on the volatility of the Fund?

No, the Fund remains well-diversified across a range of both public and private assets.

How did you set your carbon reduction targets?

The targets represent a balance between achieving a meaningful decrease in the carbon footprint without eliminating an excessive amount of the equity universe. The footprint reduction numbers for the passive physical equity portfolio are comparable to those achieved in many low-carbon indices and they will translate into a meaningful reduction in the footprint of the Fund itself. The higher reduction target for reserves represents the higher confidence that the "assets" these companies hold are likely to have their economic value impaired, and the fact that reserves are concentrated in a smaller number of companies.

How are you measuring the progress towards your reduction targets?

Through an annual Fund carbon footprint calculation. This document has been produced with input from MSCI ESG Research. It reports the estimated reduction in the Fund's carbon footprint with respect to both reserves and emissions as a result of the implementation of the climate change investment strategy. See the document itself for further detail on the methodology applied.

What will happen after 2020 – if you meet those targets will you consider that you have sufficiently mitigated climate change investment risk? Will further reductions be contemplated?

Our objective is always to maximise risk-adjusted returns. We will consider setting further reduction targets, if we believe they will improve the portfolio.

How did you decide which equities to sell and which to retain?

We created a bespoke methodology for assessing our carbon exposure based on independent third-party data on carbon emissions and reserves provided by MSCI ESG Research. Our focus was on stocks with high carbon footprints without regard to sector. The methodology identifies stocks that exceed thresholds for either carbon intensity or for carbon reserves, and which are not considered to be standout performers. Specifically, stocks in the top quartile of MSCI ESG Research's "Carbon Emissions" score – reflecting less risk and better management than their peers with respect to climate issues have been retained in the portfolio. Stocks that were not in the top quartile have been eliminated from the portfolio one-by-one until we met specific reduction targets for the passive physical global equity portfolio. These targets were set at -70% carbon reserves and -50% carbon intensity compared to the unadjusted Reference Portfolio. This is the first step in meeting our whole of Fund targets which include active and unlisted assets.

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We will continue to refine this methodology over time and will reapply it annually to the portfolio.

What are you doing with the proceeds of the sell down?

They have been reinvested, in line with market capitalisation, across the rest of the passive equity portfolio.

When were the changes made?

The bulk of the changes were made in June 2017. A few stocks were sold down after then for operational reasons.

What are the implications for the Fund's Reference Portfolio and measuring active investment performance?

Because we consider climate change to present material investment risks, the climate risk-related changes will be incorporated into the Reference Portfolio benchmark effective 1 July 2017. We have also taken this opportunity to incorporate our responsible investment exclusions (for tobacco, whaling, nuclear explosive devices, cluster munitions and individual breaches of standards) into the Reference Portfolio benchmark. For cost reasons they had not previously been included in the benchmark.

This change to the benchmark reflects that if the Fund just held the Reference Portfolio, it wouldn't include those stocks we have decided to exclude. It ensures the Reference Portfolio is fit for purpose given the requirements in our mandate to maximise returns without undue risk to the Fund as a whole, and to not prejudice New Zealand's reputation in the global community.

We will track performance of the Fund's Actual Portfolio against the new Reference Portfolio. This helps us understand clearly where the Guardians' active management is adding value to the Fund. The Reference Portfolio is reviewed by the Board five-yearly, with the next review due in 2020, and the impact of the changes on returns will be considered then.

Will your active managers be allowed to hold stocks that have been sold from the passive portfolio on the Fund's behalf?

Our active NZ equity managers (who may also from time to time invest in Australia) will not invest in these stocks. Work is in progress to determine how we will apply the Climate Change Investment Strategy to our global active strategies.

What are the next steps you will take to further reduce the carbon footprint of the Fund?

We are going to focus on our active portfolio while continuing with our engagement and opportunity search work-streams. More detail on these activities can be found at www.nzsuperfund.co.nz.

Are your actions consistent with New Zealand's commitments on the world stage regarding climate change?

Yes. New Zealand's current target is to reduce greenhouse gas emissions by 30 per cent below 2005 levels by 2030. There is no direct analogy to the actions the Fund has taken, in part because most of the emissions associated with the Fund's portfolio take place off-shore. We acknowledge that although the Fund has shifted its passive equity investments away from companies with high emissions and reserves, this does not mean these companies will

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themselves reduce their emissions as will be required to avert dangerous levels of climate change. However, we believe our actions are in accordance with the spirit of the Paris Agreements, and our portfolio is well positioned for the global policy changes that the Paris Agreement requires.

How does your approach compare to that of peer funds?

The Fund's focus on risks and opportunities from climate change is in line with global best practice. NZSF is one of a large number of leading funds which have taken or are taking steps to address climate change risk. Peer funds are addressing climate change in a number of ways, each one choosing that which they consider most appropriate for them, given their individual objectives, time horizons and other unique features. In focusing not just on coal companies but also on oil and gas, in considering carbon emissions as well as reserves; and in taking a whole-of-Fund approach, our strategy is comprehensive and appropriate given our long time horizon and Reference Portfolio-based investment approach.