



Risky Business

An update on super funds and nuclear weapons

Australians continue to invest in the production of nuclear weapons through their superannuation. In 2023, major superannuation funds invested at least \$3.4 billion in companies that produce the worst weapons of mass destruction.

Authors: Rosemary Kelly, Margaret Beavis

Researchers: Adam Gottschalk, Olivia Chollet

Editors: Elise West, Alice Grundy

Medical Association for the Prevention of War Intern:
Max Torstensson

September 2024

Quit Nukes in collaboration with The Australia Institute

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Level 1, Endeavour House,
1 Franklin St Canberra,
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About Quit Nukes

Quit Nukes is a joint initiative of the Medical Association for Prevention of War (MAPW) and the International Campaign to Abolish Nuclear Weapons (ICAN) Australia. Quit Nukes was launched in 2019 with financial support from the Jessie Street Trust.

MAPW is the Australian affiliate of 1985 Nobel Peace Prize Laureate, the International Physicians for the Prevention of Nuclear War and in 2006 founded ICAN. MAPW works for the redirection of the world's resources away from war and towards peace, health and justice.

ICAN is a coalition of 650 non-governmental organisations in more than one hundred countries, promoting adherence to and implementation of the United Nations Treaty on the Prohibition of Nuclear Weapons. In 2017 ICAN was the recipient of the Nobel Peace Prize.

Acknowledgement of Country

The Australia Institute and Quit Nukes recognise the ancestral connections and custodianship of Traditional Owners throughout Australia. We pay respect to Aboriginal and Torres Strait Islander cultures and to Elders past and present.

Acknowledgements

Quit Nukes would like to thank all those who have helped us in preparation of this report, including from ESG research houses, global asset consultants, screening services and superannuation funds. Any errors or omissions in this report remain the responsibility of Quit Nukes.

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“There is nothing prosperous, secure, sustainable, responsible or ethical about weapons poised to unleash, by accident or design, massive indiscriminate nuclear violence...The only durable way to prevent their use is to eliminate them.

“Stopping the flow of funds enabling and supporting nuclear weapons makes every kind of sense. The long-term financial security of superannuation fund members - like everyone else - demands eliminating, not fuelling, the real and present existential danger posed by the world’s worst weapons.”

A/Professor Tilman Ruff AO

Co-founder of the International Campaign to Abolish Nuclear Weapons

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Summary

In 2023 fourteen major Australian superannuation funds invested \$3.4 billion in the companies that produce the worst weapons of mass destruction. This is three years after the UN prohibited nuclear weapons. Australian Super invested \$1.5 billion in nuclear weapons companies; UniSuper and HESTA invested over \$200 million each.

The United Nations Treaty on the Prohibition of Nuclear Weapons (TPNW) entered into force in January 2021. The TPNW recognises nuclear weapons as weapons of indiscriminate mass destruction and comprehensively prohibits their development, possession, and use. The treaty places nuclear weapons on par with other illegal and controversial weapons including chemical weapons, biological weapons, landmines and cluster munitions. Nuclear weapons are included in the taxonomy of controversial weapons.

Yet while these other weapons are commonly excluded from investment portfolios, the Australian superannuation industry has been slow to adapt to the new normal heralded by the TPNW and to exclude nuclear weapons (NW) companies from its investment portfolios.

Quit Nukes and the Australia Institute conducted a study of superannuation funds' investments in nuclear weapons in 2021 and the new analysis in this report shows that **all but one of these major funds continue to invest in NW companies.**

The exception is Hostplus, which has excluded NW across its portfolio since December 2021. We note that Hostplus did have a small exposure to one NW company in its MySuper option (0.0002% of the portfolio) as of 31 December 2023.

In the fund holdings we analysed, exposure to NW companies varied widely from less than 0.01% (Hostplus) to 0.91% (Aware Super) of their portfolios in their MySuper default options. The majority of funds had less than 0.5% of their MySuper portfolios invested in NW companies.

Divesting from NW companies does not affect returns for superannuation account holders. Comparisons of the returns of global indices that exclude NW companies with the returns of parent indices show that exclusion of NW has an immaterial impact.

Our 2021 analysis of funds' policies showed a wide variation in the way funds defined and applied controversial weapons exclusions. This variation remains apparent in 2024.

Eight of the funds we examined exclude controversial weapons from their MySuper options but do not include nuclear weapons in their controversial weapons definition. One fund excludes nuclear weapons companies from its MySuper option subject to a revenue threshold, where that threshold still exposes it to holdings in 16 NW companies.

Since 2021, some funds have made progress in the exclusion of NW companies from their portfolios. Following advocacy from Quit Nukes, as of January 2023 the Responsible Investment Association of Australasia (RIAA) has required certified responsible financial products to exclude NW companies.¹ By 2024, three RIAA member funds that had included nuclear weapons in their responsible investment option in 2021 now exclude them. Of the 14 funds included in this report, ten are members of RIAA. However, **the (uncertified) responsible options of two funds — Australian Super and Spirit Super — have holdings in NW companies.**

The entry into force of the TPNW in 2021 established a new set of norms on nuclear weapons, and Australians do not want their retirement savings invested in them.²

All Australian super funds need to adopt controversial weapons exclusion policies that include nuclear weapons in the definition of controversial weapons, and to exclude NW companies across the whole of their portfolios, with a zero-revenue threshold in order to comply with evolving global norms, international law and member expectations.

While nuclear weapons exist, nuclear war is an ever-present risk. Its impacts would be catastrophic. Even a “limited” nuclear war involving only 250 of the over 12,000 nuclear weapons in the world would kill 120 million people outright and cause global climate disruption leading to a nuclear famine, putting 2 billion lives at risk.³ There would be massive impacts on global supply chains and manufacturing. The long-term financial implications should also be taken seriously.

Super fund trustee directors have a legal duty to act in the best financial interests of the fund-members. A final consideration for trustee directors is that any nuclear war, started intentionally or by accident, will be disastrous for global financial markets. This is clearly not in anyone’s best financial interest.

¹ Responsible Investment Association Australasia (2022) *Responsible Investment Standard P3: Avoiding significant harm Minimum requirements*, <https://responsibleinvestment.org/wp-content/uploads/2023/12/Assessment-Note-P3-Avoid-Significant-Harm.pdf>

² The Australia Institute and Quit Nukes (2021) *The Case for Australian Superannuation Funds to be Nuclear Weapons Free*, <https://quitnukes.org/report/>

³ Xia et al (2022) “Global food insecurity and famine from reduced crop, marine fishery and livestock production due to climate disruption from nuclear war soot injection”, *Nature Food*, <https://www.nature.com/articles/s43016-022-00573-0>

Introduction

“Humanity ... is just one misunderstanding, one miscalculation away from nuclear annihilation.”

UN Secretary-General Antonio Guterres⁴

NUCLEAR WEAPONS AND RISK

The Treaty on the Prohibition of Nuclear Weapons (TPNW) states that total abolition of nuclear weapons is the rational solution to the problem of their use. Questions about the legitimacy of investment in illegitimate weapons naturally follow.

Risk analysis, past experience, and high-quality modelling underpin global concerns about nuclear weapons. Nuclear weapons are unique in their destructive power, in the human suffering they cause, and in the impossibility of controlling their effects in space and time. They threaten irreversible harm to the environment and to future generations.⁵

Nuclear weapons cause greater harm than other controversial weapons: chemical and biological weapons, anti-personnel mines, blinding laser weapons, cluster munitions, depleted uranium weapons, incendiary weapons, non-detectable fragments, and white phosphorus weapons.

Recent research has reaffirmed that use of nuclear weapons would be catastrophic for humanity. Even a very “limited” nuclear war involving only 250 of the world’s 12,100 nuclear weapons would kill 120 million people outright and cause a decade-long global climate disruption, leading to a nuclear winter and famine, putting two billion lives at risk.⁶

⁴ United Nations (2022) *Humanity’s just one misunderstanding away from “nuclear annihilation” warns UN chief*, <https://news.un.org/en/story/2022/08/1123752>

⁵ Jaegermeyr et al (2020) “A regional nuclear conflict would compromise global food security”, *Proceedings of the National Academy of Sciences*, <https://doi.org/10.1073/pnas.1919049117>; Mills et al (2014) “Multidecadal global cooling and unprecedented ozone loss following a regional nuclear conflict”, *Earth’s Future*, <https://doi.org/10.1002/2013EF000205>; Toon et al (2019) “Rapidly expanding nuclear arsenals in Pakistan and India portend regional and global catastrophe”, *Science Advances*, <https://doi.org/10.1126/sciadv.aay5478>; Bardeen et al (2021) “Extreme Ozone Loss Following Nuclear War Results in Enhanced Surface Ultraviolet Radiation”, *Journal of Geophysical Research: Atmospheres*, <https://doi.org/10.1029/2021JD035079>

⁶ Jaegermeyr et al (2020) “A regional nuclear conflict would compromise global food security”, *Proceedings of the National Academy of Sciences*, <https://doi.org/10.1073/pnas.1919049117>; Mills et al (2020) “Multidecadal global cooling and unprecedented ozone loss following a regional nuclear conflict”, *Earth’s Future*, <https://doi.org/10.1002/2013EF000205>; Toon et al (2019) “Rapidly expanding nuclear arsenals in

Such a war would have severe and lasting impacts on raw materials, manufacturing, and the global financial system.⁷

Since 2021, geopolitical tensions and conflicts have escalated, increasing the likelihood of nuclear war.⁸ While proponents argue this insecurity justifies the build-up of nuclear arsenals, increasing weapons numbers will in fact just increase the likelihood of use. This escalating risk makes the reduction and elimination of nuclear weapons essential.

Even in times of greater global security, the risks from human and technical errors, coupled with emerging risks from artificial intelligence, cyber and outer space domains are unacceptably high. Since the 1963 Cuban missile crisis, there have been more than a dozen “near misses” where humanity’s fate has hung in the balance.⁹

The development and testing of nuclear weapons also cause considerable harm, with First Nations and Indigenous peoples around the world bearing the greatest burden. Physicians project that some 2.4 million people worldwide will eventually die from cancers due to atmospheric nuclear tests conducted between 1945 and 1980.¹⁰ In Australia, British nuclear testing between 1952 and 1963 caused significant and ongoing suffering amongst First Nations people.

The treaty-based elimination of nuclear weapons is a necessary response to the extreme risk of their use. The TPNW was adopted by 122 countries at the United Nations in 2017 and entered into force in 2021.

The Australian Labor Party, currently in government federally, has pledged to join the TPNW.¹¹

The Australian government has participated as an observer to the first and second meetings of TPNW States Parties.

Pakistan and India portend regional and global catastrophe”, *Science Advances*, <https://doi.org/10.1126/sciadv.aay5478>; Bardeen et al (2021) “Extreme Ozone Loss Following Nuclear War Results in Enhanced Surface Ultraviolet Radiation”, *Journal of Geophysical Research: Atmospheres*, <https://doi.org/10.1029/2021JD035079>

⁷ Harrison et al (2022) “A New Ocean State After Nuclear War”, *AGU Advances*, <https://doi.org/10.1029/2021AV000610>; Ray (2022) “Even a small nuclear war threatens food security”, *Nature Food*, <https://doi.org/10.1038/s43016-022-00575-y>

⁸ United Nations (2023) *Alarmed by Risk of Nuclear Escalation among Major Powers, Speakers in General Assembly Warn Growing Distrust, Divisions Are Driving Multilateral System towards Dysfunction*, <https://press.un.org/en/2023/ga12538.doc.htm>

⁹ Lewis et al (2023) *Too Close for Comfort: Cases of Near Nuclear Use and Options for Policy*, <https://www.chathamhouse.org/2014/04/too-close-comfort-cases-near-nuclear-use-and-options-policy>

¹⁰ ICAN Australia (nd) *The Legacy of Nuclear Testing*, https://www.icanw.org/the_legacy_of_nuclear_testing

¹¹ ICAN Australia (nd) *Labor Policy and the Treaty on the Prohibition of Nuclear Weapons*, <https://icanw.org.au/laborpolicy/>

In 2022, the Australian Red Cross Elimination of Nuclear Weapons Position Statement made a key recommendation:

“[that]The Australian private sector, particularly the financial and insurance services industry, consider the legal, financial and reputational risks associated with investing in nuclear weapons and develop policies and practices that respond to this risk, including adjusting financial capital flows away from companies connected with the production of nuclear weapons.”¹²

As the author of a recent Principles of Responsible Investment (PRI) blogpost has noted, in the current geopolitical situation the ESG risks and socio-economic impacts of investing in weapons are material for investors, and “international humanitarian law and human rights standards provide clear and appropriate processes which can help investors to align with global norms, serve beneficiary interests and deliver against long-term investment goals”.¹³

PUBLIC OPINION

Australians do not want their retirement savings invested in weapons of mass destruction, and assume they are screened out as a matter of course.

Surveying the public in our 2021 report, we found 69% of Australians agree that their super fund should not invest in companies that are involved in nuclear weapons production. 78% agree that their super fund should clearly state whether they invest in companies that are involved in nuclear weapons production.¹⁴

¹² Australian Red Cross (2022) *Elimination of Nuclear Weapons Position Statement*, <https://www.redcross.org.au/ihl/make-nuclear-weapons-the-target/elimination-of-nuclear-weapons-position-statement/>

¹³ Pederson (2024) “The defence sector in focus: Common ESG risks”, UNPRI, <https://www.unpri.org/pri-blog/the-defence-sector-in-focus-common-esg-risks/12689.article>

¹⁴ The Australia Institute and Quit Nukes (2021) *Quit Nukes: The Case for Australian Superannuation Funds to be Nuclear Weapons Free*, <https://quitnukes.org/report/>

Methodology

SELECTION OF FUNDS

In December 2021 Quit Nukes and The Australia Institute published a report on the policies and practices of major Australian superannuation funds in relation to their investments in nuclear weapons producers, and their holdings of companies involved in the production of nuclear weapons.

This report is an update on the policies and practices of the 14 largest Australian public offer superannuation funds (“funds”) by funds under management (FUM)¹⁵. It analyses these funds’ investments in 20 of the companies most involved in nuclear weapons development, production, maintenance and other services (“NW companies”) as of 31 December 2023.

We looked at the fourteen funds’ equities holdings in twenty NW companies as at 31 December 2023, the date of the funds’ most recent mandatory portfolio holdings disclosures.

We selected two investment options for each fund for our analysis. We analysed the MySuper default options in which most fund members are invested. We also examined the responsible investment options, as consumers invested in these options have made a choice to invest in a portfolio that minimises exposure to environmental, social and governance risks and screens out products that harm people or the environment.

MySuper options are default, simple, cost effective, balanced superannuation accounts for most Australians who do not make a choice about the type of option that they want their superannuation to be invested in. From 1 July 2017, all member accounts in a default investment option have been required to be invested in MySuper products.

Each fund in this report offers a single MySuper product apart from Australian Retirement Trust (ART). ART has two distinct MySuper options due to a merger of two funds, Sunsuper and QSuper in February 2022. The two MySuper options are ART Lifecycle Investment Strategy and QSuper Lifetime.

Both are lifecycle strategies under which members in the MySuper option have their exposure to growth assets such as equities gradually reduced, thus reducing investment risk, over time according to their age. ART Lifecycle Investment Strategy has 15 lifecycle stages, and QSuper Lifetime has 8 lifecycle stages. Other funds in this report with lifecycle

¹⁵ APRA Statistics: Quarterly Product Level Superannuation Statistics - Product Structure December 2023 released April 2024

stages are AMP (6 stages), Aware Super (11 stages), Colonial First State FirstChoice Employer Super (13 stages) and Mercer Smart Path (19 stages).

For each of these superannuation funds, the holdings of equities in NW companies in the MySuper default option in the accumulation phase, and in the ethical/socially aware/socially conscious investment option (responsible investment option) in the accumulation phase (where such an option exists) have been identified. Holdings in the pension options were not included in the research. The total equities investment in NW companies by the funds in each option on 30 December 2023 was calculated, as an absolute dollar amount and as a percentage of the portfolio of that option.

Because of the number of lifecycle stages, the research in relation to AMP, ART, Aware Super, Colonial First State FirstChoice Employer Super and Mercer Smart Path was simplified with exposure to NW companies in the life stages with the largest cohort of members being analysed – AMP aged 63 years and under; ART Lifecycle Investment Strategy aged 59 years and under; ART QSuper Lifetime aged 59 years and under; Aware Super aged 55 years and under; Colonial First State FirstChoice Employer Super aged 58 years and under, and Mercer Smart Path aged 60 years and under.

We confined our analysis to funds' holdings where members are in the accumulation phase. We did not include pension options in the analysis.

METHODOLOGICAL CHANGE: 2021 AND 2024 REPORTS

This report analyses fewer funds than our 2021 report. In 2024, we decided to focus on the largest Australian superannuation funds and to examine the holdings in NW companies of the fourteen public offer superannuation funds with more than \$10 billion in funds under management in their MySuper options.

The NW company equities holdings of 13 of the 14 funds examined in this report were also analysed in 2021. Spirit Super was not included in the 2021 report.

The 2021 report identified six smaller funds which excluded nuclear weapons companies across their portfolios: Active Super, Australian Ethical, Christian Super, Crescent Wealth, Future Super, and Verve Super. In the interim, Crescent Wealth has changed its name to Salaam Wealth, and Verve Super has become a part of the Future Super Group. These funds continue to exclude NW companies from all portfolios.

Vanguard Super, which entered the Australian superannuation market in November 2022, also excludes NW companies across its portfolios.^{16 17}

¹⁶ Where nuclear weapons companies are defined as companies that manufacture nuclear weapons, manufacture components that were developed or significantly modified for exclusive use in nuclear weapons, or provide auxiliary services related to nuclear weapons.

¹⁷ Vanguard Super (2023) *Investing your super*, https://fund-docs.vanguard.com/Vanguard_Super-Investing_your_super.pdf

Table 1: Selected Funds December 2023 APRA Data¹⁸

| Registrable Superannuation Entity | Superannuation product name, accumulation phase | Member Accounts (rounded to nearest 10) | Member Assets \$'000 |
|---|--|--|-----------------------------|
| AMP Super Fund | SignatureSuper — MySuper | 312,490 | 16,741,384 |
| Australian Retirement Trust (ART) | Lifecycle Investment Strategy | 1,374,860 | 73,444,818 |
| Australian Retirement Trust (ART) | QSuper Lifetime | 492,760 | 54,391,394 |
| AustralianSuper | AustralianSuper MySuper | 2,646,550 | 184,858,110 |
| Aware Super | Aware MySuper | 893,180 | 90,150,153 |
| Colonial First State FirstChoice Superannuation Trust | FirstChoice Employer Super — MySuper | 172,570 | 10,863,568 |
| Construction and Building Unions Superannuation Fund (Cbus) | Growth (MySuper) | 778,850 | 62,587,050 |
| Care Super | CareSuper MySuper | 181,520 | 14,149,232 |
| HESTA | HESTA MySuper | 885,530 | 54,866,388 |
| HOSTPLUS Superannuation Fund | Hostplus MySuper | 1,503,290 | 63,048,538 |
| Brighter Super | MySuper | 133,600 | 13,593,430 |
| Mercer Super Trust | Mercer SmartPath | 453,390 | 31,893,536 |
| Retail Employees Superannuation Trust (REST) | MySuper | 1,868,500 | 62,920,524 |
| Spirit Super | Spirit Super — MySuper | 334,430 | 22,049,201 |
| Unisuper | MySuper Offering | 344,940 | 26,973,565 |

NUCLEAR WEAPONS COMPANIES

Nuclear weapons companies are companies that:

- Manufacture nuclear weapons, including nuclear warheads, intercontinental ballistic missiles, and ballistic missile submarines, which are capable of the delivery of nuclear warheads;

¹⁸ APRA Statistics: Quarterly Product Level Superannuation Statistics - Product Structure December 2023 released April 2024

- Manufacture components developed or significantly modified for exclusive use in nuclear weapons such as fissile materials, non-nuclear components, explosives, triggers and detonators;
- Provide auxiliary services related to nuclear weapons, such as repairing and maintaining nuclear weapons, providing overhaul and upgrade services (including engineering), stockpiling and stewardship, R&D work, testing and simulations, and;
- Manufacture nuclear warheads and/or whole nuclear missiles.¹⁹

This report examines the funds' holdings in 20 companies assessed to have a meaningful involvement in nuclear weapons, nuclear weapons development, production, maintenance and other services.

The list of 20 NW companies has been derived through cross-reference with lists developed by Don't Bank on the Bomb²⁰ Kiwi Saver Funds and MSCI,²¹ Norge Bank,²² NZ Super Fund,²³ Morningstar Sustainalytics²⁴ and Robeco Institutional Asset Management.²⁵ When a company appeared on at least two of these lists, it was determined to have meaningful involvement for the purpose of this research. Moody's has estimated the number of NW companies to be around fifty and we recognise that some funds may have investments in NW companies that have not been selected for this report.²⁶

¹⁹ MSCI (2022) *World ex Australia ex Tobacco ex Controversial Weapons ex Nuclear Weapons Index Methodology*, https://www.msci.com/eqb/methodology/meth_docs/MSCI_World_ex_Australia_ex_Tobacco_ex_Controversial_Weapons_ex_Nuclear_Weapons_Methodology_Aug2022.pdf

²⁰ Don't Bank on the Bomb (2023), *Moving Away From Mass Destruction*, <https://www.dontbankonthebomb.com/policy-analysis-report-moving-away-from-mass-destruction/>

²¹ MSCI (2022) *MSCI World ex Australia ex Tobacco ex Controversial Weapons ex Nuclear Weapons Index Methodology*, https://www.msci.com/eqb/methodology/meth_docs/MSCI_World_ex_Australia_ex_Tobacco_ex_Controversial_Weapons_ex_Nuclear_Weapons_Methodology_Aug2022.pdf

²² Norge Bank (2024) *Observation and exclusion of companies*, <https://www.nbim.no/en/responsible-investment/exclusion-of-companies/>

²³ NZ Super Fund (nd) *Exclusions*,

²⁴ Morningstar Sustainalytics publication: *Controversial Weapons Radar Report Q4 – 2024*

²⁵ Robeco Institutional Asset Management (2024) *Exclusion List*, <https://www.robeco.com/files/docm/docu-exclusion-list.pdf>; Robeco Institutional Asset Management (2024) *Exclusion Policy*, <https://www.robeco.com/files/docm/docu-exclusion-policy.pdf>

²⁶ Scarpat and Greer (2022) *Controversial Weapons in focus: adapting to evolving norms and regulations*, <https://web.archive.org/web/20221017114945/https://esg.moody's.io/insights-analysis-reports/controversial-weapons-in-focus-adapting-to-evolving-norms-and-regulations>

Table 2: Major nuclear weapons companies identified in this report

| Name of Company | Country HQ |
|-----------------------------------|-------------------|
| Airbus SE | The Netherlands |
| BAE Systems Plc | UK |
| Boeing Co/The | USA |
| BWX Technologies Inc | USA |
| Dassault Aviation SA | France |
| Fluor Corp | USA |
| General Dynamics | USA |
| Honeywell International Inc | USA |
| Huntington Ingalls Industries Inc | USA |
| Jacobs Solutions Inc | USA |
| L3 Harris Technologies | USA |
| Leidos | USA |
| Leonardo Spa | Italy |
| Lockheed Martin Corp | USA |
| Northrop Grumman Corp | USA |
| Rolls-Royce Holdings | UK |
| RTX Technologies | USA |
| Safran SA | France |
| Textron Inc | USA |
| Thales | France |

IDENTIFYING INVESTMENTS

Superannuation funds have been required to publish their portfolio holdings every six months since the introduction of the new Regulations in November 2021.²⁷ This research was conducted between May and July 2024, using the most recent Portfolio Holdings Disclosures on 31 December 2023, published in March 2024 on fund websites.

Through these mandatory disclosures, each fund's holdings in equities (shares) in selected NW companies were identified, including the value of each individual holding, and the weighting of the holding by value in the option's total portfolio of investments. As noted above, the relevant options are the MySuper Options, and the ethical/socially aware/socially conscious investment options (collectively referred to as responsible investment options), in the accumulation phase.

Funds may also hold fixed income investments (or corporate bonds) issued by NW companies.

²⁷ *Corporations Amendment (Portfolio Holdings Disclosure) Regulations 2021 (Cth)*

Under the regulations, fixed income assets that are held directly by funds and which are internally managed must be aggregated by the counterparty or issuer of the asset. The names, value and weighting of each individual fixed income asset do not need to be disclosed. Similarly, for fixed income assets that are externally managed, the name of the manager and the aggregate value of the assets needs to be provided, but the names, value and weighing of the individual fixed income assets do not need to be disclosed.

Of the 14 funds which are the subject of this report, only Australian Super and Colonial First State FirstChoice Employer Super fully disclose their fixed income assets by name, value and weighting in the portfolio, whether internally or externally managed. AMP discloses its internally managed fixed interest holdings.

Australian Super, Colonial First State and AMP had some fixed interest investments in NW companies in their MySuper options at 31 December 2023, but these were found to be very small investments relative to the listed equity investment in NW companies and to the total MySuper option. There were no fixed interest holdings in NW companies in the responsible investment option of any of these three funds.

From this data we conclude that for those funds which do have an exposure to NW companies through fixed interest, the exposure is likely to be very small (less than 0.01%) as a percentage of the MySuper option. However, we are unable to identify which funds might have such exposures — apart from AMP, Australian Super and Colonial First State FirstChoice Employer Super.

Funds may also have some small exposures to NW companies through the use of derivatives but are not required to disclose details. Investments in derivatives are reported by aggregating the value by type of derivative — swaps, forwards, futures and options — and by asset class. It is therefore not possible to determine from the Portfolio Holdings Disclosures if funds have any exposure to NW companies through the use of derivatives.

DATA VALIDATION

Quit Nukes contacted each of the 14 funds at two points: when data collection began and prior to publication. For funds that proved difficult to contact by email, a registered letter with the findings was sent in July to the fund address listed on their website. Each fund was provided with a draft copy of the research that applied to them for verification and comment. For those who replied, the research was updated if necessary. Any errors remain the responsibility of Quit Nukes.

Controversial weapons and nuclear weapons

While there is no universal definition of controversial weapons, the term is widely used to describe weapons of mass destruction which have indiscriminate effects on civilians, are excessively injurious and/or inflict damage on the natural environment.²⁸

The exclusion of controversial weapons is one of the most common negative screens used by institutional asset owners looking to invest responsibly and to adhere to international norms and treaties.

Controversial weapons indiscriminately kill or disproportionately harm civilians relative to military necessity (including after conflict has ended). Thus, they breach all global conventions on human rights and their use is prohibited.

Their use contravenes a number of international weapons treaties, conventions and breaches International Humanitarian Law.

The International Red Cross states that maintaining and strengthening International Humanitarian Law is a collective responsibility of all states.²⁹ It recognises the UN Treaty on the Prohibition of Nuclear Weapons as one of the five multilateral treaties driven by humanitarian concerns that comprehensively prohibit an entire class of weapon — the others being the Convention on Cluster Munitions, the Anti-Personnel Mine Ban Convention, the Biological Weapons Convention, and the Chemical Weapons Convention. The list of controversial weapons used by investors, index providers and ESG researchers also includes other weapons banned or regulated under international treaties and conventions.

In addition, the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to have Indiscriminate Effects (CCW) prohibits the use of certain weapons, including non-detectable fragments, mines, booby traps and other devices, incendiary weapons, and blinding laser weapons.

²⁸ Scarpat and Greer (2022) *Controversial Weapons in focus: adapting to evolving norms and regulations*, <https://web.archive.org/web/20221017114945/https://esg.moodys.io/insights-analysis-reports/controversial-weapons-in-focus-adapting-to-evolving-norms-and-regulations>

²⁹ ICRC (2024) *In times of insecurity and conflict, states must work together to uphold and strengthen international humanitarian law*, <https://www.icrc.org/en/news-release/times-insecurity-and-conflict-states-must-work-together>

Moody's data from April 2022 found there were 83 companies which were either listed or which issued bonds involved in the production of controversial weapons, specifically in designing or producing whole munitions, or providing key components or key services to the producers of these weapons, namely anti-personnel mines; biological weapons; blinding laser weapons; chemical weapons; cluster munitions; depleted uranium weapons; incendiary weapon; non-detectable fragments; and nuclear weapons.³⁰

Of these 83 companies, 50 were involved in the production of nuclear weapons. Some of these companies are involved in the production of other controversial weapons. Of the 20 major companies involved in the production of nuclear weapons selected for this analysis, four have been implicated as being involved in the production or supply of other controversial weapons. These companies are BAE (white phosphorus), General Dynamics and L3 Harris (white phosphorous and depleted uranium); and Northrop Grumman (depleted uranium).³¹

Almost all major global ESG advisers, index providers and providers of screening tools to institutional investors, including superannuation and pensions funds, categorise nuclear weapons as controversial weapons, for example: Morningstar Sustainalytics, ISS ESG; Moody's, Robeco and Standard & Poor's (S&P).

MSCI is the outlier — its controversial weapons indices do not include nuclear weapons. On 1 July 2024 Moody's and MSCI announced a "strategic partnership" to leverage each other's strengths and to bring "greater transparency on ESG and sustainability to markets". Moody's ESG clients will be referred to MSCI.³²

Moody's ESG Solutions Controversial Weapons screening includes nuclear weapons. It covers ten types of controversial weapons including nuclear weapons and screens companies that, directly or through subsidiaries or joint ventures, design, develop or produce controversial weapons or their parts or provide related services (such as maintenance, testing, distribution, storage, transportation or trade).

³⁰ Scarpat and Greer (2022) *Controversial Weapons in focus: adapting to evolving norms and regulations*, <https://web.archive.org/web/20221017114945/https://esg.moody's.io/insights-analysis-reports/controversial-weapons-in-focus-adapting-to-evolving-norms-and-regulations>

³¹ Morningstar Sustainalytics publication: *Controversial Weapons Radar Report Q4 – 2024*

³² Moody's (2024) *Moody's and MSCI Announce a Strategic Partnership to Enhance Transparency and Deliver Data-Driven Risk Solutions*, <https://ir.moody's.com/press-releases/news-details/2024/Moodys-and-MSCI-Announce-a-Strategic-Partnership-to-Enhance-Transparency-and-Deliver-Data-Driven-Risk-Solutions/default.aspx>

Table 3: Controversial weapons with in-force prohibitions

| Weapon Type | Treaty (entry into force) |
|---|---|
| Anti-personnel mines | Mine Ban Treaty (1999) |
| Biological weapons | Biological Weapons Convention (1975) |
| Blinding laser weapons | Convention on Certain Conventional Weapons, Protocol IV on Blinding Laser Weapons (1998) |
| Chemical weapons | Chemical Weapons Convention (1997) |
| Cluster munitions | Convention Cluster Munitions (2010) |
| Incendiary weapons | Convention on Certain Conventional Weapons, Protocol III on Incendiary Weapons (1983) |
| Mines, booby traps and other devices | Convention on Certain Conventional Weapons, Protocol II on Mines, Booby-Traps and Other Devices (1983) Amended (1998) |
| Non-detectable fragments | Convention on Certain Conventional Weapons, Protocol I on Non-Detectable Fragments (1983) |
| Nuclear weapons | Nuclear Non-Proliferation Treaty (1970) Treaty on the Prohibition of Nuclear Weapons (2021) |

Source: UNODA Treaties Database³³

³³ Office for Disarmament Affairs Treaties Database (2024), <https://treaties.unoda.org/>

Findings

RESPONSIBLE INVESTMENT OPTIONS

Many superannuation funds offer responsible investment options. These options are variously labelled sustainable, socially conscious, socially aware, and socially responsible.

Australian superannuation funds use ESG research houses, global asset consultants and screening services that include nuclear weapons in the taxonomy of controversial weapons (apart from MSCI as noted above) and that have exclusions based on international treaties, conventions and International Humanitarian Law. However, many of these same funds make a distinction between controversial weapons and nuclear weapons.

The responsible investment options generally exclude certain companies involved in production and sale of products which cause harm — such as alcohol for consumption, tobacco, gambling, fossil fuels, and controversial weapons - using negative screens.

Of the 14 funds that are included in this report, 12 offer responsible investment options, while two — Cbus and Brighter Super — do not. Brighter Super closed its two responsible investment options on 31 May 2024. Cbus takes a whole of fund approach, excluding controversial weapons producers across the whole portfolio but omitting nuclear weapons from its controversial weapons definition.³⁴ The ART QSuper responsible investment option was closed on 1 July 2024.

The remaining 12 funds all exclude some controversial weapons, and ten funds explicitly exclude NW companies. Unlike in the MySuper options category, no fund has placed a revenue threshold on investments in excluded companies in their responsible investment options — so companies are excluded if they have any involvement in nuclear weapons or earn any revenue from such involvement.

Two funds — Spirit Super and Australian Super — do not exclude NW companies from their responsible investment options.

Australian Super has the narrowest exclusions of controversial weapons from its responsible investment option of any of the funds in this study. (See Appendix 2)

The only controversial weapons exclusions are companies that directly manufacture cluster munitions or land mines. Australian Super does not exclude NW companies, or producers of chemical weapons, biological weapons, incendiary weapons, non-detectable fragments and

³⁴ CBUS (2023) *Responsible Investment Supplement*, <https://www.cbussuper.com.au/content/dam/cbus/files/governance/reporting/responsible-investment-supplement-2023.pdf>

blinding laser weapons, all of which are covered by international treaties against their production and use.

Australian Super's Socially Aware option had holdings in eight NW companies as of 31 December 2023, totalling \$20,675,274, amounting to 0.71% of assets held in the option.

Spirit Super excludes companies with any ties to cluster munitions, landmines, biological / chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons, and/or non-detectable fragments from its Sustainable option. However, it does not exclude nuclear weapons producers and holds investments in ten of the 20 companies identified in this report, totalling \$395,089 or 0.28% of the portfolio in its Sustainable option.

Three funds, AMP, Aware Super and Hostplus, include nuclear weapons in the definition of controversial weapons in their responsible investment options, consistent with best practice and international treaties. However, neither AMP nor Aware Super include nuclear weapons in their definition of controversial weapons in their respective MySuper options, where they both have holdings of NW companies.

To be certified by the Responsible Investment Association of Australasia (RIAA), responsible investment options need to exclude NW companies from their portfolios, with a zero-revenue threshold.

The AMP Pandal Sustainable Balanced option is RIAA Certified. Hostplus' Socially Responsible Options exclude companies directly involved in the production of nuclear weapons, as well as prime-contractors, key subcontractors, and suppliers of key components. Hostplus has three responsible options, none of which are RIAA Certified.

Aware Super has two responsible options in the accumulation phase, both of which are RIAA Certified. However, the definition of companies involved in the production of nuclear weapons is ambiguous. Aware Super's exclusion is stated to apply to companies involved in the development, production and maintenance of nuclear weapons, but also that the exclusion applies to companies manufacturing whole systems only and not to companies assembling these types of weapons where one or more components are manufactured by another company. However, Aware Super did not hold investments in any of the 20 nuclear weapons companies identified in this report on 31 December 2023.

Of the other seven funds with nuclear weapons exclusions, there are definitional differences in their screens.

ART Super Savings Socially Conscious Balanced Option has a quite wide definition of a NW company, being any company with industry ties to nuclear weapons. The option is RIAA Certified.

Care Super's Sustainable Balanced option has a similar definition but is not RIAA Certified.

Colonial First State's Thrive+ Sustainable Growth Option is RIAA Certified and excludes companies that manufacture nuclear weapons including manufacture and/or storage of fissile materials used in/for nuclear weapons, manufacture of nuclear warheads and/or missiles or production of uranium for nuclear weapons.

HESTA's Sustainable Growth and UniSuper's Sustainable Balanced options are RIAA Certified and exclude any company that manufactures whole weapon systems or components developed for exclusive use in nuclear weapons.

REST's Sustainable Growth option, which is RIAA Certified, excludes companies involved in developing, producing, and maintaining nuclear weapons, nuclear weapons components and nuclear weapons delivery platforms, including those designed for dual usage.

Mercer's Sustainable Growth Plus option, which is not RIAA certified, excludes companies with involvement in the development and/or production of nuclear weapons and from global shares and global credit.

Notwithstanding differences in definitions, none of the funds which exclude nuclear weapons from their responsible investment options bar one had holdings in any of the 20 nuclear weapons companies identified in this Report on 31 December 2023, and none imposed a revenue threshold.

ART Super Savings Socially Conscious Balanced Option is the exception, with \$17,562 held in General Dynamics Corporation shares. This represents an immaterial 0.0046% of total holdings in its Socially Conscious option. General Dynamics produces depleted uranium weapons and is involved in the production of nuclear weapons, both of which are stated to be excluded from the ART Socially Conscious Balanced option. ART has stated that these shares were held for 30 days as security for financing trades undertaken by the cash asset class (which is distinct from the Australian and International shares asset classes).³⁵ (See Appendix 1)

³⁵ McGrath et al (2024), *Fortunes of War*, <https://www.abc.net.au/news/2024-07-01/ethical-super-savings-found-in-controversial-weapons-makers-/104015686>

MYSUPER OPTIONS

Of the 14 superannuation funds included in this report, ten funds exclude controversial weapons companies from their MySuper options.

Four funds do not exclude controversial weapons at all from their MySuper option: Australian Super, Brighter Super, Care Super, and UniSuper.

Care Super is in the final stages of a merger with Spirit Super. The merged fund (to be called Care Super) will be reviewing its position on ESG matters including nuclear weapons as soon as the merger is completed.³⁶

Of the funds that do exclude controversial weapons — AMP, ART LifeCycle Investment Strategy/ART QSuper Lifetime, Aware Super, Cbus, Colonial First State FirstChoice Employer Super, Hostplus, HESTA, Mercer Smart Path and Spirit Super — only Hostplus includes nuclear weapons in its definition of controversial weapons, thus excluding nuclear weapons from its MySuper option.

Despite this exclusion, Hostplus had a very small exposure to Dassault Aviation at 31 December 2023, amounting to \$114,939, and 0.0002% of the portfolio.

Our 2021 Report found that HESTA was invested in at least 15 nuclear weapons producers. HESTA does not include nuclear weapons in its definition of controversial weapons. However, in August 2021 HESTA advised members that from 1 July 2021 it had extended its exclusion of controversial weapons to capture nuclear weapons. It defined nuclear weapons in its Significant Event Notice (SEN) to members as “those in breach of the United Nations Convention” and stated that, “aligned with the controversial weapons exclusion, we exclude investment in companies that develop, test, produce, manufacture, otherwise acquire, possess or stockpile nuclear weapons or other nuclear explosive devices.”³⁷

But HESTA still does not exclude NW companies from its MySuper option.

HESTA only excludes companies that derive 5% or more revenue from the manufacture of whole weapon systems or components developed for exclusive use in nuclear weapons from the MySuper option.

HESTA’s Responsible Investment Policy 2023 states that HESTA may restrict investment in activities, sectors and companies that HESTA considers contravene international treaties or conventions or cause indiscriminate harm to society or the environment.³⁸ Yet out of the 14

³⁶ Correspondence with Quit Nukes 2024.

³⁷ HESTA (2021) *Significant Event Notice*, <https://www.hesta.com.au/content/dam/hesta/Documents/HESTA-and-HESTA-Personal-Super-significant-event-notice-30-Aug-2021.pdf>

³⁸ HESTA (2024) *Responsible Investment Policy*, <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.hesta.com.au/cont>

funds reviewed, HESTA has the fourth largest holdings (by %) of NW companies in its MySuper option.

On 31 December 2023 HESTA had investments in 15 of the 20 NW companies identified in this research, totalling \$280.119 million or 0.47% of the MySuper portfolio.

An International Campaign to Abolish Nuclear Weapons (ICAN) analysis shows that five of these companies had revenues from nuclear weapons which exceeded 5% of total revenues in 2023, namely, BAE Systems, General Dynamics, Honeywell International, Huntington Ingalls Industries Inc and Leidos.³⁹

HESTA has subsequently advised that on 30 June 2024 it held investments in eight of the 20 NW companies identified in this report, with a total investment of \$130.618 million in its MySuper option.⁴⁰ It no longer holds investments in BAE Systems, General Dynamics, Honeywell International or Huntington Ingalls Industries Inc. This data was not publicly available at the time that this report was released.

Clearly, imposing a revenue threshold does not prevent the fund from holding NW companies in its MySuper option or lead to HESTA's holdings in NW companies being materially different from those of other funds.

On 31 December 2023 UniSuper held 0.48% of its MySuper option in 18 NW companies, very close to HESTA's 0.47%.

Australian Super held investments in 17 of the 20 NW companies identified in this report on 31 December 2023, totalling close to 1.5 billion dollars, the highest amount of any fund. Australian Super's holdings were the equivalent of 0.70% of its MySuper portfolio.

Aware Super has the greatest percentage of its MySuper portfolio invested in NW companies of any fund in this report, at 0.91% of the portfolio, and 16 companies. This was for the cohort of members aged under 55 years invested in its MySuper High Growth option, part of its default MySuper lifecycle option.

ent/dam/hesta/Documents/Responsible_Investment_Policy.pdf&ved=2ahUKEwiK6obc39CIAxV-sFYBHWQOligQFnoECBcQAQ&usg=AOvVaw1rogDQTm72LeFckxefAxwh

³⁹ ICAN (2024) *Surge: 2023 Global Nuclear Weapons Spending*, https://www.icanw.org/surge_2023_global_nuclear_weapons_spending

⁴⁰ Correspondence with Quit Nukes (2024)

Table 4: Nuclear weapon holdings by percentage and AUD value – MySuper and responsible investment options, of 31 December 2023

| Fund | MySuper (default) option holdings by \$ value and % of portfolio | | Responsible investment option holdings by \$ value and % of portfolio | |
|--|---|---------|--|---------|
| AMP | \$8.92m | 0.34% | \$0 | 0% |
| ART Lifecycle Investment Strategy - Balanced 59 years and under | \$147.58m | 0.23% | \$0.02m | 0.0046% |
| ART QSuper Lifetime Under 60 years | \$69.61m | 0.46% | \$0 | 0% |
| Australian Super | \$1,477.56m | 0.70% | \$20.66 | 0.71% |
| Aware Super High Growth 55 years and under | \$700.03m | 0.91% | \$0 | 0% |
| Brighter Super | \$54.42m | 0.38% | N/a | N/a |
| Colonial First State FirstChoice Employer Super Life stage 58 years and under | \$15.84m | 0.16% | \$0 | 0% |
| Cbus | \$137.11m | 0.21% | N/a | N/a |
| Care Super | \$27.99m | 0.18% | \$0 | 0% |
| HESTA | \$280.12m | 0.47% | \$0 | 0% |
| Hostplus | \$0.12m | 0.0002% | \$0 | 0% |
| Mercer Smart Path Age 60 and under | \$25.06m | 0.08% | \$0 | 0% |
| REST | \$135.81m | 0.21% | \$0 | 0% |
| Spirit Super | \$54.21m | 0.24% | \$0.40m | 0.28% |
| UniSuper | \$217.82m | 0.48% | \$0 | 0% |

Impact of exclusion on member returns

Our 2021 report showed the impact on members' returns from the exclusion of nuclear weapons from portfolios is immaterial when major indices that exclude nuclear weapons are compared with their parent indices which do not have this exclusion.

Where funds in this report did have holdings in NW companies in either in their MySuper options or responsible options, their holdings were less than 1% of these portfolios. Eight of the 14 funds had holdings in NW companies of less than 0.25% of the MySuper option by dollar value. Excluding these holdings is likely to have an immaterial impact on returns, as they will be replaced by holdings of other companies' equities in the portfolio.

As global investment manager Pental Group states in relation to its *Multi Asset Investment Framework*, while some investments will be unavailable to sustainable funds, any theoretical loss of diversification due to negative screening is negligible and can be offset via sound portfolio construction.⁴¹ And further, "as stewards of investors' capital, we can help our investors do good, exert influence and achieve outcomes that they may not be able to individually, in a manner consistent with our fiduciary duty".

Recent data regarding the relative performance of indices which exclude NW companies against the parent index shows that exclusions have no significant impact on returns. Indeed, for all three sources of data we have managed to obtain on this topic, there is a remarkable consistency around the impact on returns.

The AkademikerPension Fund in Denmark found that the impact of the exclusion of arms manufacturers from its portfolio between 2018 and 2023 had an estimated impact on returns of an additional 0.1 percent: "[s]ince April 2018, exclusion of arms manufacturers has had an estimated positive return effect of 0.1 percent."⁴²

Figure 1 and Figure 2 compare returns over the period May 2016 to July 2024 for two global equities indices:

- MSCI World ex Australia ex Tobacco ex Controversial Weapons Index⁴³

⁴¹ Pental Group (2020) *Pental Multi-Asset Responsible Investment Framework*, <https://www.pentalgroup.com/wp-content/uploads/2021/04/Pental-Multi-Asset-Responsible-Investment-Framework.pdf>

⁴² Akademiker Pension (2023) *Magasin om Ansvarlige investeringer 2023*, <https://akademikerpension.dk/media/kzwbaqea/ansvarlighedsmagasin-2023.pdf>, p 11

⁴³ MSCI (2022) *MSCI World ex Australia ex Tobacco ex Controversial Weapons Index (AUD)*, <https://www.msci.com/documents/10199/944f8c2a-d89f-451f-8d3b-8f551f925af8>

- MSCI World ex Australia ex Tobacco ex Controversial Weapons Index ex Nuclear Weapons index⁴⁴

The data show the impact on returns from adding a nuclear weapon exclusion when compared to the index which excludes tobacco and controversial weapons and show there is no material difference in returns over the time period.

Figure 1: Cumulative Index Performance – Net Returns (AUD)



Source: MSCI, supplied to Quit Nukes.

Figure 2: Index performance – net returns (&) 31 July 2024

| | 1 Mo | 3 Mo | 1 Yr | YTD | ANNUALIZED | | | Since May 31, 2016 |
|---|------|------|-------|-------|------------|-------|-------|-----------------------|
| | | | | | 3 Yr | 5 Yr | 10 Yr | |
| MSCI World ex AU ex Tobacco ex Contro Weapons | 3.99 | 7.82 | 22.34 | 19.07 | 11.17 | 13.50 | na | 13.22 |
| MSCI World ex AU ex Tobacco ex Contro Weapons ex Nuclear Weapons | 3.94 | 7.84 | 22.34 | 19.08 | 11.18 | 13.54 | na | 13.23 |

Source: MSCI, supplied to Quit Nukes.

Any differences are negligible, and in fact slightly positive (in the order of 0.01% over 8 years) when nuclear weapons are excluded from the index. Over the period, annualised returns of the MSCI World ex Australia ex Tobacco ex Controversial Weapons

⁴⁴ MSCI (2024) *MSCI World ex Australia ex Tobacco ex Controversial Weapons ex Nuclear Weapons Index (AUD)*, https://www.msci.com/eqb/methodology/meth_docs/MSCI_World_ex_Australia_ex_Tobacco_ex_Controversial_Weapons_ex_Nuclear_Weapons_Methodology_Aug2022.pdf

Index averaged 13.22% and annualised returns of the MSCI World ex Australia ex Tobacco ex Controversial Weapons ex Nuclear Weapons Index averaged 13.23%.

Figure 3 and Figure 4 compare annualised returns from May 2016 to July 2024 for two indices:

- MSCI World ex Australia ex Tobacco ex Controversial Weapons Index ex Nuclear Weapons index, and the parent index
- MSCI World ex Australia

This historical data show that the broader exclusions of tobacco and controversial weapons and nuclear weapons has no material impact on returns. The MSCI World ex AU ex tobacco ex controversial weapons ex nuclear weapons index marginally outperformed the parent index with annualised returns of 13.23% compared to annualised returns of 13.10% over the period.

Figure 3: Controversial weapons, nuclear weapons and tobacco exclusion: cumulative index performance, MSCI



Source: MSCI, supplied to Quit Nukes.

Figure 4: Index performance – net returns (%) 31 July 2024

| | 1 Mo | 3 Mo | 1 Yr | YTD | ANNUALIZED | | | Since May 31, 2016 |
|---|------|------|-------|-------|------------|-------|-------|--------------------|
| | | | | | 3 Yr | 5 Yr | 10 Yr | |
| MSCI World ex AU ex Tobacco ex Contro Weapons ex Nuclear Weapons | 3.94 | 7.84 | 22.34 | 19.08 | 11.18 | 13.54 | na | 13.23 |
| MSCI World ex Australia | 4.08 | 7.88 | 22.26 | 19.04 | 11.20 | 13.39 | na | 13.10 |

Source: MSCI, supplied to Quit Nukes.

Standard and Poor’s backtested analysis (Table 5) has similar findings in relation to the impact of ESG exclusions, including the exclusion of NW companies, on returns for the S&P 500 stocks in the United States. Again, the data show a marginal outperformance where there were ESG exclusions in place.

The inception date for the S&P 500 Exclusions II Index is 26 August 2019. Results prior to this date were backtested, calculated by using available data at the time in accordance with the Index’s current methodology.

Over a 10-year period, the data show that the S&P 500 with Exclusions outperformed the returns from the S&P 500 with annualised returns of 13.67% compared to 13.56%.

As S&P states “[t]he S&P 500 ESG Exclusions II Index has delivered a risk-return performance profile that is, statistically, not significantly different to the S&P 500 Index, but at the same time achieves compliance with the typical exclusion-based SRI approaches”.

The exclusions include controversial weapons, namely, anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus (market standard/in line with international conventions) including nuclear weapons.⁴⁵

S&P provides examples of exclusions, including nine US domiciled NW companies, all of which are on the list of 20 NW companies which form the basis of this report.

Table 5: S&P 500 ESG exclusions II (US) backtested historical performance

| Time period | Return (%) | | Volatility (Annualised, %) | | Tracking Error (Annualised, %) |
|----------------------|------------|---------------------------|----------------------------|---------------------------|--------------------------------|
| | S&P 500* | S&P 500 ESG Exclusions II | S&P 500 | S&P 500 ESG Exclusions II | |
| 1 month | 3.02 | 3.17 | N/A | N/A | N/A |
| 3 month | 9.07 | 9.42 | 9.39 | 9.66 | N/A |
| 1 year | 31.49 | 32.63 | 12.47 | 12.83 | 0.66 |
| 3 year (annualised) | 15.27 | 15.69 | 12.10 | 12.26 | 0.69 |
| 5 year (annualised) | 11.70 | 11.78 | 11.98 | 12.24 | 0.66 |
| 10 year (annualised) | 13.56 | 13.67 | 12.46 | 12.62 | 0.59 |

Source: State Street Global Advisors *An Introduction to the S&P 500 ESG Exclusions Index 2020* *Index returns reflect capital gains and losses, income, and the reinvestment of dividends.

⁴⁵ State Street Global Advisors, *An Introduction to the S&P 500 ESG Exclusions II Index (2020)*, <https://www.ssga.com/library-content/story/general/etf/emea/Index-comparison-An-Introduction-to-the-S-and-P500-ESG-Exclusions-II-Index.pdf>

Exclusions and exposure risk

Funds can and do explicitly address the difficulties that can arise in implementing exclusions of nuclear weapons companies with a zero-revenue threshold, (or in the case of HESTA's MySuper option, a 5% revenue threshold), in their PDS, investment handbooks or on their website. The circumstances in which there may be an inadvertent breach of the threshold can include changes in advice regarding a company's involvement with NW by external advisers between regular updates, and the transfer of shares as part of a merger with another fund.

Other circumstances may include indirect exposure through derivatives, exchange-traded products such as ETFs, securitised assets (financial products that give the holder exposure to a pool of loans, bonds or other debt products), and unit trusts, fund of funds and pooled vehicles.⁴⁶ The situations under which exclusions do not apply should not be so broad as to render the exclusions meaningless.

As noted, two funds in this report breached their zero revenue thresholds for nuclear weapons on 31 December 2023 because of small holdings in a single nuclear weapons company: ART in its Socially Conscious option (0.0046 % of the portfolio), and Hostplus in its MySuper option (less than 0.01% of the portfolio).

Hostplus states that the exclusion of controversial weapons (which includes nuclear weapons) applies to all the investments in which it has a high degree of control over investment exposures, and that it may not be practicable to exclude controversial weapons from investments held via pooled fund vehicles, securitised financial instruments, such as collateralised loan obligations, and fund-of-fund structures. Notwithstanding this, Hostplus says that it will work with the investment managers which control those investments to exclude exposure to controversial weapons.

ART states that the screening criteria do not apply to pooled vehicles or derivatives, which may have indirect exposure to companies exceeding the screens, and that it may accept excluded listed shares as part of super fund mergers, in which case it seeks to divest these shares, usually within 30 days. ART says that it relies on the accuracy of data from its third-party provider (MSCI), which is updated twice a year, to implement the exclusions. Following those updates, external investment managers are advised which listed equity shares must be excluded from new and existing investments.

⁴⁶ See for example, Aware Super (2024) *Responsible Investment: Environmental, Social & Governance Policy*, <https://aware.com.au/content/dam/aware/au/en/documents/member/governance/policies/responsible-investment-esg-policy.pdf>

According to data obtained from ICAN, HESTA was in breach of its revenue threshold on 31 December 2023. At that date HESTA held investments in five nuclear weapons companies that had revenues from involvement in nuclear weapons exceeding 5% of total revenues.

HESTA states that implementation of exclusions is based upon data supplied by external data providers and may be affected by the accessibility and accuracy of data, implementation delays where there has been a material change to the nature of an investment, or an error by an external service provider. Also, in the event of a merger, HESTA may receive investments previously not subject to its investment restrictions and exclusions. This may result in holdings in excluded companies, typically over the short term, which will be removed or managed on a case-by-case basis.

Quit Nukes accept that small inadvertent breaches of revenue thresholds for investments in nuclear weapons will occur and given the risk of funds being pursued by regulators for greenwashing, it is prudent for funds to include caveats in relation to unintended and inadvertent breaches of their declared thresholds.⁴⁷ The stated circumstances in which such exposures could occur should be narrow, and any breaches of a threshold should be rectified within a reasonable timeframe, once they are discovered.

⁴⁷ Australian Securities and Investment Commission (2022) *How to avoid greenwashing when offering or promoting sustainability-related products*, <https://asic.gov.au/regulatory-resources/financial-services/how-to-avoid-greenwashing-when-offering-or-promoting-sustainability-related-products/>

Conclusion

The entry into force of the Treaty on the Prohibition of Nuclear Weapons in 2021 should signal a new normal for the superannuation industry. Super funds are well accustomed to applying exclusions in order to align with member preferences, pursue outcomes, or comply with norms and laws, but have been slow to adapt to the need to exclude NW companies across their portfolios. Data show that the exclusion of NW companies from portfolios has no material impact on returns, and if anything has a marginally positive effect.

There is strong public support for nuclear weapons exclusions from superannuation portfolios, and a clear humanitarian rationale.

It is clear that nuclear weapons are controversial weapons. No superannuation fund should be party to enabling the design, creation, maintenance, or stockpiling of these weapons, given their horrific, indiscriminate, disproportionate and lasting impacts on civilians and the environment.

Nevertheless, major Australian superannuation funds continue to have exposure to NW companies in their MySuper default options. Two funds — Australian Super and Spirit Super — hold investments in NW companies in their responsible investment options.

Exclusion of NW companies funds from portfolios is not difficult, with reputable ESG advisers and screening providers able to identify the significant companies involved in the production and ancillary processes of nuclear weapons at any point in time.

Such exclusions have negligible material impacts on returns. Indeed, data in Figures 1, 2, 3 and 4 present past performance of indices with exclusions illustrating this point.

Funds can and should place caveats in their policies for small inadvertent exposures, so fund members know that any such unintended exposures can happen and that they will be divested when they are identified.

There are powerful ethical reasons why nuclear weapons must be stigmatised and NW companies excluded from portfolios.

When analysing the risk of nuclear accident/conflict, a risk lens similar to that applied to climate change is required. Very low frequency, high impact events can and do occur.

Finally, the broader systemic risk presented by nuclear weapons should be considered.

The combination of a well-documented and concerning level of “near misses” and expert modelling of catastrophic outcomes must be taken into consideration.

And given the very significant impacts on global supply chains, manufacturing and the subsequent collapse of financial markets, the long-term financial implications of nuclear war should also be taken seriously.

A final consideration for trustee directors is that any nuclear war, be it intentional or by accident, will be catastrophic for global financial markets. This is clearly not in anyone's best financial interest.

For Australian superannuation funds to be compliant with evolving norms, international law, and member expectations, and to address systemic risks posed by nuclear weapons they should:

- adopt controversial weapons exclusion policies which include nuclear weapons in the definition of controversial weapons, and;
- exclude NW companies across the whole of their portfolios, with a zero-revenue threshold.

Appendices

Appendix 1: Summary of funds' holdings of equities in nuclear weapons companies

Table 6

| | Option excludes controversial weapons including nuclear weapons | Option excludes controversial weapons but not nuclear weapons | No exclusion of controversial weapons or nuclear weapons |
|-------------------------------|---|---|--|
| My Super Option | Hostplus ⁴⁸ HESTA ⁴⁹ | AMP Super ART Lifecycle Investment Strategy ART - Q Super Lifetime Aware Super Cbus Colonial First State FirstChoice Employer Super Mercer Smart Path Rest Super Spirit Super | Australian Super Care Super Brighter Super UniSuper |
| Responsible Investment Option | AMP Super ART Lifecycle Investment Strategy ⁵⁰ Aware Super Care Super Colonial First State FirstChoice Employer Super HESTA Hostplus Super Mercer Super Rest Super UniSuper | Australian Super Spirit Super | |

ART QSuper, Brighter Super and Cbus do not have responsible investment options.

⁴⁸ 0.0002% exposure to Dassault Aviation 31 December 2023.

⁴⁹ 5% revenue threshold on nuclear weapons companies.

⁵⁰ 0.0046% exposure to General Dynamics at 31 December 2023.

Appendix 2: Controversial weapons exclusions/definitions by fund

Responsible Investment Options 31 December 2023

AMP

AMP (Pandal) Sustainable Balanced Option

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes manufacturers of controversial weapons (including cluster munitions, landmines, biological or chemical weapons, nuclear weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons, and/or non-detectable fragments).

ART

ART Super Savings Socially Conscious Balanced Option

- Single holding in one nuclear weapons company:— 0.0046% of total portfolio of the option; \$17,562
- RIAA certified

Controversial weapons exclusions/definitions: Companies that have any ties to controversial weapons – cluster munitions, landmines, biological/chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons and/or non-detectable fragments.

ART (Q Super)

QSuper Socially Responsible Option

Closed on 30 June 2024.

Australian Super

Socially Aware Option

- Holdings in nuclear weapons companies: 0.71% of total portfolio of the option; holdings in eight nuclear weapons companies totalling \$20.68 million
- Not RIAA certified

Excludes companies that directly manufacture cluster munitions or land mines.

Aware Super

High Growth Socially Conscious

Balanced Socially Conscious

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes manufacture and/or production of controversial weapons, including chemical weapons, cluster munitions, land mines, depleted uranium and companies involved in the development, production and maintenance of nuclear weapons.

Note that this screen applies to companies manufacturing whole systems only (i.e. these weapons in their entirety) and does not apply to companies assembling these types of weapons where one or more components are manufactured by another company.

Brighter Super

Two Socially Responsible Options closed on 31 May 2024

Care Super

Sustainable

Balanced

- Nil holdings in nuclear weapons companies
- Not RIAA certified

Excludes controversial weapons (sales and production) companies that have any industry ties to cluster munitions, landmines, biological/chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons and/or non-detectable fragments.

Excludes companies that have any tie to nuclear weapons.

Cbus

No socially responsible option

Colonial First State, FirstChoice, Employer Super

Thrive+ Sustainable Growth

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes companies that manufacture controversial weapons, including chemical and biological weapons, cluster munitions, anti-personnel landmines, and blinding lasers.

Excludes companies that manufacture nuclear weapons including manufacture and/or storage of fissile materials used in/for nuclear weapons, manufacture of nuclear warheads and/or missiles or production of uranium for nuclear weapons.

[General Dynamics Corp, L3 Harris Technologies Inc, Northrop Grumman Corp explicitly excluded]

HESTA

Sustainable

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes any company that manufactures whole weapon systems or components developed for exclusive use in cluster munitions, anti-personnel mines, biological or chemical weapons.

Excludes any company that manufactures whole weapon systems or components developed for exclusive use in nuclear weapons.

Hostplus

Socially Responsible Investment – High Growth Option

Socially Responsible Investment – Balanced Option

Socially Responsible Investment – Defensive Option

- Nil holdings in nuclear weapons companies
- Not RIAA certified

Excludes companies involved in the development, production, maintenance or sale of controversial weapons (including cluster munitions, anti-personnel mines, depleted uranium, biological weapons, chemical weapons, blinding laser weapons, non-detectable fragment weapons, incendiary weapons and nuclear weapons). Involvement includes companies directly involved as well as prime-contractors, key subcontractors, and suppliers of key components.

Mercer

Mercer Sustainable Plus Growth Option

- Nil holdings in nuclear weapons companies
- Not RIAA certified

Excludes companies that manufacture whole weapons systems, or delivery platforms, or key components that are developed or significantly modified for use in cluster munitions, anti-personnel landmines, biological or chemical weapons.

Excludes companies with involved in the development and/or production of nuclear weapons and depleted uranium ammunition/armour.

REST

Sustainable Growth Option

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes any-company involved in the production of controversial weapons (cluster bombs, landmines, uranium weapons and chemical weapons and biological weapons or their key parts).

Excludes any-company involved in developing, producing, and maintaining nuclear weapons, nuclear weapons components and nuclear weapons delivery platforms, including those designed for dual uses.

Spirit Super

Sustainable Option

- Holdings in nuclear weapons companies: 0.28% of total portfolio of the option; holdings in ten nuclear weapons companies, totalling \$0.40 million.
- Not RIAA certified

Excludes controversial weapons: Any company which has any ties to cluster munitions, landmines, biological / chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons, and/or non-detectable fragments.

UniSuper

Sustainable Balanced Option

Sustainable High Growth Option

Global Environmental Opportunities Option

- Nil holdings in nuclear weapons companies
- RIAA certified

Excludes manufacture of whole systems or components developed for exclusive use in controversial weapons such as cluster munitions, anti-personnel mines, depleted uranium weapons, biological or chemical weapons.

Excludes manufacture of whole weapon systems or components developed for exclusive use in nuclear weapons.

Appendix 3: My Super (Default) Options December 2023 Controversial weapons definitions, exclusions and nuclear weapons

AMP Signature Super

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Controversial weapons definition: Companies with involvement in cluster munitions, anti-personnel landmines, biological and chemical weapons

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.44% of MySuper portfolio
- 15 equities holdings totalling: \$82.98 million

ART Lifecycle Investment Strategy — Balanced

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Companies that manufacture cluster munitions whole weapons systems, intended use components or dual use components. Companies with an industry tie to landmines that are flagged for landmine manufacturer, ownership by a landmines company, or ownership of a landmines company.

Holdings of nuclear weapons companies as of 31/12/2023:

0.23% of MySuper portfolio

- 21 equities holdings* totalling \$147.58 million.

*Rolls Royce listed twice

ART Q Super

Lifetime Outlook, Aspire, Focus

Under 60 years

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Companies that manufacture cluster munitions whole weapons systems, intended use components or dual use components. Companies with an industry tie to landmines that are flagged for landmine manufacturer, ownership by a landmines company, or ownership of a landmines company.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.46% of MySuper portfolio for this cohort
- 10 equities holdings totalling \$69.61 million.

Australian Super

Controversial weapons exclusion: No

Nuclear included as controversial weapon: n/a

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.70% of MySuper portfolio
- 17 equities holdings totalling \$1.47 billion.

Aware Super

High Growth

Age 55 and under

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Companies that derive any revenue from the manufacturing and/or production of controversial weapons (whole systems), including chemical weapons, cluster munitions, land mines and depleted uranium

The exclusion applies to companies manufacturing whole systems only (i.e. these weapons in their entirety) and does not apply to companies assembling these types of weapons where one or more components are manufactured by another company.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.91% of MySuper portfolio for this cohort
- 16 equities holdings totalling \$700.03 million.

Brighter Super

Controversial weapons exclusion: No

Nuclear included as controversial weapon: n/a

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.38% of MySuper portfolio
- 16 equities holdings totalling \$54.42 million.

Colonial First State FirstChoice Employer Super

Lifestage 58 years and under

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Controversial weapons are weapons that indiscriminately kill or disproportionately harm people relative to military necessity (as defined by international humanitarian law). Through normal use these weapons may kill civilians as well as military targets (including after conflict has ended) thus their use is prohibited and breaches all global conventions on human rights.

Controversial weapons include chemical and biological weapons, cluster munitions, antipersonnel landmines, depleted uranium ammunition, non-detectable fragments, incendiary weapons and blinding lasers.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.16% of MySuper portfolio for this cohort
- 15 equities holdings totalling \$15.84 million.

Cbus

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Companies directly involved in certain controversial weapon manufacturing (specifically cluster munitions, biological and chemical weapons, anti-personnel mines, depleted uranium, incendiary and white phosphorus weapons where involvement relates to core weapons components)

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.21% of MySuper portfolio
- 6 equities' holdings totalling \$137.11 million.

Care Super

Controversial weapons exclusion: No

Nuclear included as controversial weapon: n/a

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.18% of MySuper portfolio
- 9 equities holdings totalling \$27.99 million.

HESTA

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Whole weapon systems or components developed for exclusive use in cluster munitions, anti-personnel mines, biological or chemical weapons.

Exclusion of any company that derives 5% or more revenue from the manufacture of whole weapon systems or components developed for exclusive use in nuclear weapons.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.47% of MySuper portfolio
- 15 equities holdings totalling \$280.12 million.

Hostplus

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: Yes

Definition: Companies which are directly or indirectly involved in the development, production, maintenance or sale of the following types of controversial weapons: Cluster Munitions, Biological Weapons, Incendiary Weapons, Anti-personnel Mines, Chemical Weapons, Nuclear Weapons, Depleted Uranium, Non-detectable, Fragments Weapons, Blinding Laser Weapons.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.0002% of MySuper portfolio
- One equity holding totalling \$0.12 million.

Mercer Super Smart Path

Age 60 and under - Born 1964 to 2018

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Companies that manufacture whole weapons systems, or delivery platforms, or key components that were developed or are significantly modified for use in cluster munitions, anti-personnel landmines, biological or chemical weapons.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.08% of MySuper portfolio for this cohort
- 16 equities holdings totalling \$25.06 million.

REST

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: A company directly involved in the production of controversial weapons (cluster bombs, landmines, uranium weapons and chemical and biological weapons or their key parts).

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.28% of MySuper portfolio
- 16 equities holdings totalling \$135.81 million.

Spirit Super

Controversial weapons exclusion: Yes

Nuclear included as controversial weapon: No

Definition: Any company which has any ties to cluster munitions, landmines, biological / chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons, and/or non-detectable fragments.

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.24% of MySuper portfolio
- 14 equities holdings totalling \$54.22 million.

Unisuper

Controversial weapons exclusion: No

Nuclear included as controversial weapon: n/a

Holdings of nuclear weapons companies as of 31/12/2023:

- 0.48% of MySuper portfolio
- 18 equities holdings totalling \$217.82 million.