Ardea ESG Policy

16 December 2020

1 Executive Summary

At Ardea Investment Management, we believe sustainable investing is a necessity for long-term value creation. Conversely, we also believe that ignoring the impacts of ESG factors on portfolios amounts to an intolerable risk to the funds we manage on behalf of our clients. It is therefore our fiduciary responsibility to integrate these considerations into our investment process.

In line with this, we have been a signatory to the UN Principles for Responsible Investment (UN PRI) since 2010. This means that we commit to six key principles with the aim of developing a more sustainable financial system, as follows:

Principle 1	We will incorporate ESG issues into investment analysis and decision-making processes.
Principle 2	We will be active owners and incorporate ESG issues into our ownership policies and practices.
Principle 3	We will seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4	We will promote acceptance and implementation of the Principles within the investment industry.
Principle 5	We will work together to enhance our effectiveness in implementing the Principles.
Principle 6	We will each report on our activities and progress towards implementing the Principles.

We invest predominantly in government bonds and derivative instruments, where there has historically been less scope for stakeholder engagement than has been the case in other asset classes, such as corporate bonds and equities. Additionally, the UN PRI and the literature provide little guidance as to how investors in government bond markets should incorporate the principles into their investment process (integration). However, it is becoming increasingly clear that ESG megatrends like climate change is, and will be impacting the yield on Government bonds either through investors penalising governments who are not seen to be doing their part (Johnson, 2019) or through the impact climate change will have on an economy directly (Debelle, 2019) (American, 2020) (University of Melbourne, 2020) or indirectly through carbon tariffs (Fowler, 2020) (Holden, 2020). The UNPRI states:

"Despite its size and importance, the sovereign debt market has been the subject of less systematic environmental, social and governance (ESG) consideration than other investment asset classes. However, appetite for ESG integration is growing among investors, with a rising number appreciating that ESG factors can and do affect sovereign debt valuations." (UNPRI, 2020)

And in an IMF working paper they state:

"Climate change is already a systemic risk to the global economy. While there is a large body of literature documenting potential economic consequences, there is scarce research on the link between climate change and sovereign risk. This paper therefore investigates the impact of climate change vulnerability and resilience on sovereign bond yields and spreads in 98 advanced and developing countries over the period 1995–2017. We find that the vulnerability and resilience to climate change have a significant impact on the cost of government borrowing, after controlling for conventional determinants of sovereign risk." (Serhan & Jalles, 2020)

ARDEA Investment Management

Notwithstanding this, we believe that as custodians of capital we have a duty to ensure that we are investing sustainably and making a full effort to identify and mitigate all risks to our portfolios.

Beyond this, we are continuously seeking to improve our analyses and processes around sustainable investing. Initially we are focusing on climate change where we see the highest risk to our return profile. This will also be covered later in this document. We are also always very keen to learn about new ideas in sustainable investing and to understand how these might be complementary to, and an improvement on our existing approach, as such we welcome feedback from our clients and stakeholders.

Given the rapidly changing ESG landscape, for our ESG policy to maintain its relevance, it is prudent for us to regularly review the policy. This policy document will evolve over time as a function of our own research, feedback from clients, the literature and other relevant industry bodies such as the UNPRI. We will review and update the policy at least every 12 months.

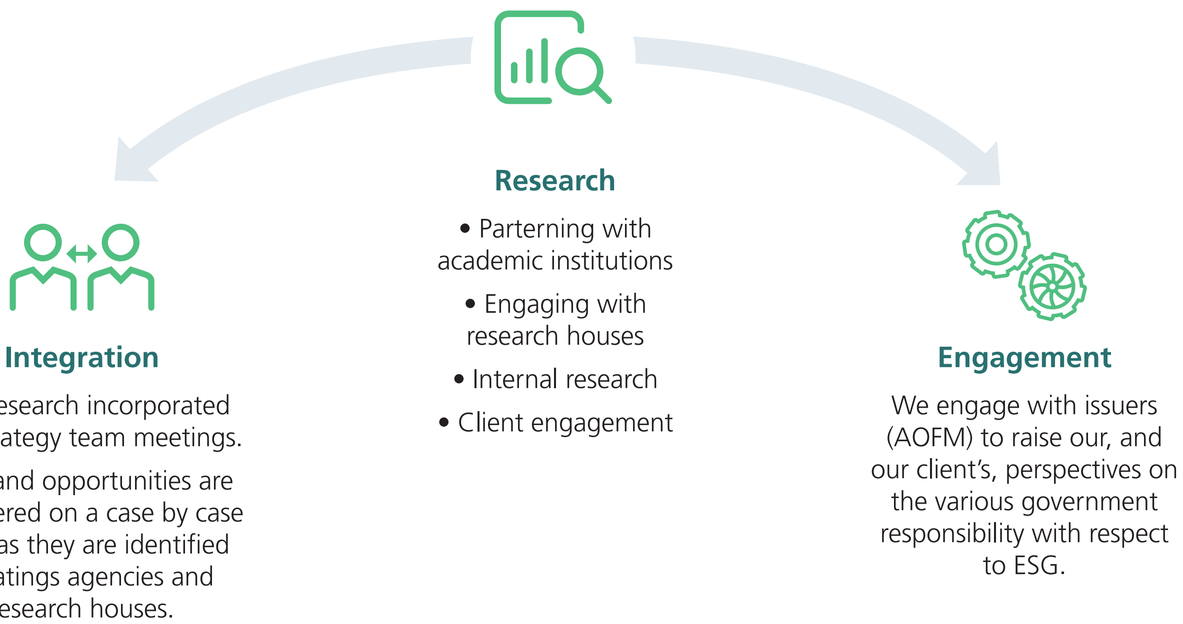
Finally, we believe it is our duty to act responsibly and sustainably with respect to our own carbon footprint and our actions as global citizens. As such, we:

- support the Paris Agreement and its goals of limiting global warming to 1.5 degrees Celsius compared to industrial levels via economic and social transformation based on the best available science[1]
- support and will be implementing the recommendations of the Task Force on Climate Related Financial Disclosures[3]. The TFCD seeks to help investors make better informed capital allocation decisions with respect to climate related risks
- will be transitioning to a carbon neutral office in 2021
- will be signing the Global Investor Statement to Governments on Climate Change[2] which calls on world governments to:
  - Achieve the Paris Agreement's goals
  - Accelerate private sector investment into the net-zero transition
  - Commit to improve climate-related financial reporting

2 Process

Our process is driven by **three pillars; research, integration and engagement**.

Figure 1



1 https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
2 https://theinvestoragenda.org/focus-areas/policy-advocacy/
3 https://www.fsb-tcfd.org/a

3 Research

Our portfolio construction process is research led, and the consideration of ESG risks are no different. As mentioned, from a fund manager's perspective, the literature and guiding bodies (e.g. UNPRI) are heavily focused on how ESG risks should feature in the investment decision for equities, corporate bonds, private equity, real estate etc., with very little focus on Government bonds.

To fill this void, we have been conducting our own research in partnership with the University of Technology Sydney on ESG risks, with a focus on climate change as this is a megatrend that we see as most relevant to the government bond market. To supplement this research we also consult with asset consultants, research houses and with our clients. And it is this research and client input that drives the evolution of our ESG policy.

Our first area of focus is on climate change given that we see this as posing the greatest potential risk to our return profile. Other ESG factors we can focus on in future include: comparative health outcomes (an obvious one post-Covid), diversity within decision makers at issuers, national-level pension and retirement sustainability, ageing, welfare outcomes, best practice governance at the government and bureaucracy level etc. All of these have a direct bearing on issuer's expense line and thus their financial performance and sustainability.

Climate Change (a work in progress)

Given the lack of guidance with respect to both the literature and guiding bodies such as PRI, we have sought to develop our own research led framework. We have partnered with the University of Technology of Sydney (UTS) to investigate the role that climate change has had and will have on the pricing of Government bonds. We are currently jointly researching three topics:

1. The role of climate change on government bonds yields historically
2. Event studies to understand how climate change news may impact yields
3. A framework for understanding how climate risks in the future may impact the pricing of sovereign bonds (scenario analysis)

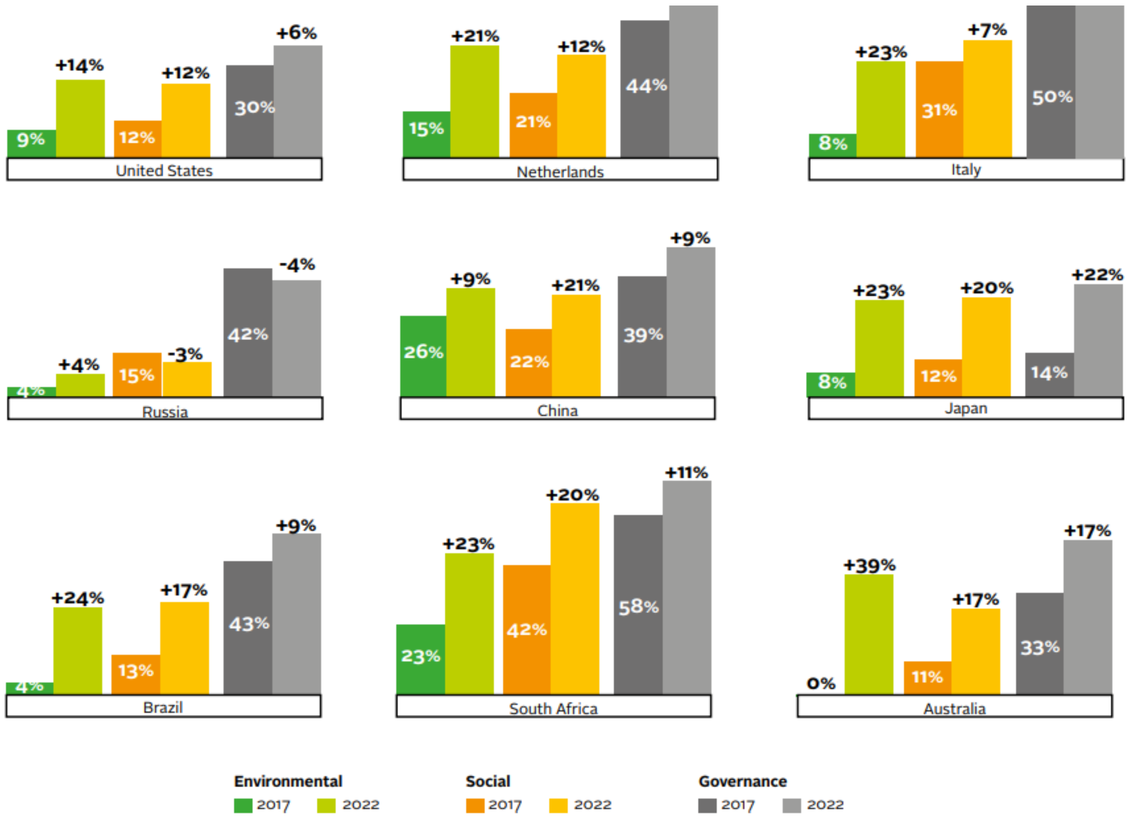
We also aim to host a series of industry workshops to understand the perspectives of clients, academics, issuers and asset consultants with respect to climate change and government bond investing. We look forward to sharing the results of our research and integrating these into our investment process.

4 Integration

Given the nature of our portfolios and specifically our focus on a pure relative value investing style, the integration of ESG factors as a material source of risk or value-add is not as clear cut as it would be for corporate-only investment styles, or for fundamentally-driven investors. Traditional bond portfolio construction methods harvest yield via exposure to default, interest rate and liquidity risk. In contrast, our strategy seeks out exposure to mis pricing between securities which are exposed to the same risks. This mispricing is driven by demand and supply dynamics in interest rate markets and is independent of the premiums associated with interest rates, credit and liquidity risk. ESG risks, and how the market prices these risks via the premiums attached to duration exposure, default and illiquidity factors is therefore likely to operate independently of our strategy. ESG factors are likely to play out over both long and indeed short horizons as risks come to the fore and are realised in market pricing, but this process can coexist with relative value investment styles. Other strategies such as long-term buy and hold strategies are more likely to be in direct opposition to ESG integration and ESG risk factors.

Our ESG integration framework does not implement screens. This is because, by default, much of the governance and social risks are eliminated due to the fact that we restrict our investible universe to countries without major credit risks. However, environmental risks are not currently adequately addressed by credit ratings. Further, we believe, as does the market, that environmental risks will become increasingly important over time. See Figure 2 below. As such, we see this as a key area of focus for not only our research efforts, but our integration process as well.

Figure 2: The impact of ESG issues on sovereign debt prices: market participants' view in a selection of capital markets



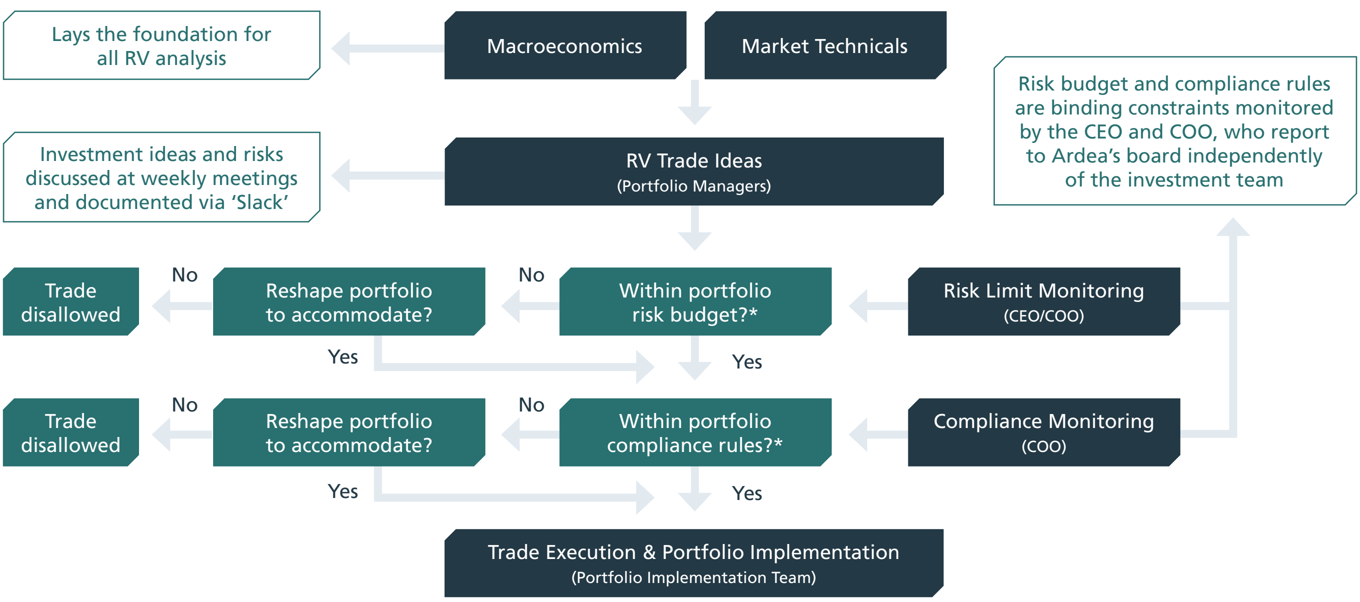
Source: PRI https://www.unpri.org/fixed-income/a-practical-guide-to-esg-integration-in-sovereign-debt/4781.article

a. Integration: Our process

Risks and opportunities are identified via research (in house, in conjunction with academic institutions, the literature, research houses and ratings agencies). Investment ideas and risks are discussed at our weekly risk and strategy meetings.

Every investment decision goes through a rigorous screening process.

Figure 3: Ardea's Investment Process



Below we discuss examples of how research regarding risks and opportunities are incorporated into our investment process.

b. Integration Examples: Risks

There is very little in the academic literature regarding climate change risks may impact the government bond market, nor has the industry seen this as a risk worthy of research:

While some investors have managed to factor climate change into stocks and corporate bonds, the long-term effects of global warming and other factors on an entire economy make it difficult to apply the same models to government debt."

"We don't have enough data to price the risk on a macro level over a long-term horizon," said Shaun Roache, Asia-Pacific chief economist at S&P Global Ratings. "We don't know the magnitude of the next shock, or how big the next bushfire will be or its impact on the economy," said Roache, who was formerly a macro strategist at Singapore sovereign wealth fund Temasek Holdings. "When markets find it difficult to price the risk, they just don't price it at all." (Bloomberg, 2020)

Despite the lack of evidence-based literature on financial market impacts, there is nonetheless a consensus among the scientific community and among policy makers that climate change risks are material. At the same time, there is also a tendency well established in the literature for financial markets to focus almost exclusively on short-term outcomes (short-sightedness or myopia (Kvaløy & Eriksen, n.d.)).

Further, investors are discounting the near term impacts of risks like climate change on investments. Jeremy Grantham, Co-founder and Chief Investment Strategist, GMO and Lucas White, Portfolio Manager, GMO as part of their introduction at the 2017 Social Enterprise Leadership Forum to discuss the near-term impacts of climate change on investors stated:

"We believe the problems and risks associated with climate change are much worse than the average investor or business person realizes. Failing to understand the investment implications of climate science exposes professional investors to risks that must be understood in order to maintain fiduciary duty.

Climate change is already impacting the world, and it will continue to get worse, regardless of how quickly we move to address it. Scientists, investors, and policymakers must work together to address the impacts of climate change, most notably the implications for our food and water supplies. Agricultural productivity is expected to suffer greatly as temperatures continue to rise, leading to more extremely hot days, droughts, floods, and heavy downpours that lead to soil erosion. Water supplies will also be threatened by changing precipitation patterns and distribution; enhancing water infrastructure will be critical. Addressing these challenges will largely determine the shape of society itself in the decades to come"
(The Tamer Center for Social Enterprise at Columbia Business School, 2017):

These factors together suggest that it is highly likely that financial markets will fail to adequately incorporate the likelihood and magnitude of ESG risks into investment decisions.

So while we may be lacking research-based evidence on the magnitude of climate change risks for government bonds, from a fiduciary perspective we are still required to take action to counter the likely outcome of financial markets failing to adequately price climate risk. We cannot wait for the literature or the industry to provide the insights we need. Therefore, we are currently working on two research pieces in conjunction with UTS which will help us to identify how climate change risks are being priced by the government bond market. **The first** focuses on how climate change has impacted yields historically. Government bond yields are modelled as a function of control variables such as real GDP, inflation, the debt to GDP ratio and quality. We also model climate change vulnerability and resilience and we find both vulnerability and resilience are significant factors in determining yields. This research is complete and will be published early 2021.

$$\boldsymbol{y_{it} = \beta_1 + \beta_2 y_{i,t-1} + \beta_3 vul_{i,t} + \beta_4\, res_{i,t} + \beta_5 x_{i,t} + \gamma_i + \mu_t + \varepsilon_{i,t}}$$

Where: X are a set of control variables including the level and growth rate of Real GDP, Inflation, debt to GDP ratio, quality etc. γ_i are country specific effects. μ_t are common shocks that impact all markets $vul_{i,t}$ and $res_{i,t}$ are composite measures of climate change vulnerability and resilience.

High level, the results indicate that climate change has a long term impact on yields and valuations via both the resilience and vulnerability of an economy. Given these results, the next step for Ardea is to understand how this translates into short term pricing risks or opportunities (for example possible ratings changes, stranded assets, illiquidity, green bonds etc). Therefore **the second** piece of research we are currently working on (again with researchers at UTS) will examine how climate change news impacts government bond yields. We expect to publish this research in approximately 12 months.

Alongside the climate change research, we also consider other risks as identified both internally by the research team as well as research houses and ratings agencies. An example is provided below:

c. Integration Examples: Risks

ESG Risk Description

In January 2020, Moody's published a report highlighting the long term risks to Australian federal and state government finances from more frequent natural disasters. No ratings action was flagged, and the research was published within a sector comment.

ESG Impact on Investment Decision:

The risks to the rating were deemed to be very long term and highly uncertain. However, there is little research by rating agencies and in the literature with respect to the market impact of climate change. It is, therefore conceivable that climate risks could eventually lead to adverse ratings action, bonds to underperform, issuance to rise and curves to steepen. But it was deemed that this risk is not material in the foreseeable future relative to the wide range of other much bigger drivers of the market. This report did not warrant any change in investment strategy. We do however acknowledge that our conclusion may have changed if there was more credible research on which to rely. In which case, we are conducting our own research into the risks of climate change on markets.

d Integration Examples: Opportunities

ESG Opportunity Description

While ESG considerations do present risks, they also present opportunities. Over the last few years, there has been significant growth in global green bond issuance volumes. The market has risen to be over US $1tn of outstanding debt. In 2020 over $200bn of green bonds have been issued globally, one of the largest on record. Europe has committed to fund around 30% of its COVID joint fiscal response with green bonds, amounting to around €225bn (source: Commonwealth Bank Research and the Climate Bonds Initiative). Supranational and regional issuers have been more active than individual sovereign issuers. However, this trend could be shifting. For instance, the German federal government issued its first green bond alongside its regular funding program in August 2020.

There is significant variation in issuance volumes across the world. Australia, for example, has not yet issued a green bond at the federal level. But global SSA issuers have been active in AUD and the Australian semi-government issuers have provided more than one third of the total supply of AUD green bonds in 2019. QTC, for example, is now a "programmatic issuer" of Climate Bonds Initiative-certified green bonds. The state was recognised by the Climate Bonds Initiative for the largest Subnational Green Bond Deal of 2019, with the issue of a $1.7bn green bond in 2019. QTC and NSWTC have issued green bonds in 2020.

ESG Impact on Investment Decision:

Semi government issuers proactive stance on green bond issuance is unlikely to be impacting the performance of its bonds, in-and-of-itself. However, ESG bonds attract a more diverse investor base and support the funding of historically large issuance programs. The use of ESG funding programs could support the performance of semi-government issuers over the long run.

Periodic variations in investor interest in green bonds relative to the size of the green issues (and underlying pool of eligible assets) could impact relative value on semi curves in the future, so investor and issuer activity in this space needs to be monitored.

5 Engagement

"As stewards of savers' money, responsible sovereign bondholders have a fiduciary duty not only to yield returns for their beneficiaries but to pursue them by promoting sustainable economic, societal and environmental outcomes." (UNPRI, 2020).

Engagement seeks to move beyond demonstrating the impact of ESG factors for investment returns, and beyond the inclusion of ESG factors as a part of the investment process. We view engagement with stakeholders including clients, media, debt management offices, academia and issuers as the most efficient and logical way to promote sustainable outcomes generally, not just within our industry or asset class. Engagement also broadens the scope to include a wider discussion on ESG issues with the key entities that produce the supply of a large part of the fixed income universe, namely governments.

Engagement with governments is important because they form the benchmark curve in markets and are used as inputs to the pricing of many other assets. So all assets incorporate in their valuations the extent to which ESG risks are managed by governments. Improvements therefore lower risks not just to investors in government bonds, but potentially to other asset classes priced off the government curve.

Engagement also addresses the concern that selectively purchasing only ESG-favourable assets as part of the integration process can be perceived as leaving so-called "brown" assets to become someone else's problem. Effective engagement can provide a roadmap for improving the entire funding stack, including debt through to equity. A further focus of engagement is to ensure that capital, once allocated, continues to be deployed in assets that are well managed (The Economist, 2020).

A key emphasis within our engagement process is to engage in a way that benefits both sides of the table, such that both issuers and investors stand to gain, and are thus appropriately incentivised to respond. For this reason, although engagement provides a crucial mechanism to convey downside risks and concerns and seek to have these mitigated or resolved with the issuer, engagement also provides an opportunity to support and encourage issuers to take steps that rely on the support of the investor base. This might include new instruments such as green bonds, but also initiatives that involve an upfront cost and potentially a hit to issuer finances. Support from the investor base can ensure that issuers, even government ones, have the confidence to make costly decisions that have material long term benefits in mitigating future ESG risks.

While issuers remain a key component of engagement, Ardea's approach encompasses more than the issuer and the debt management office (e.g. AOFM). For example we engage with:

- Our clients to understand what their expectations are
- The media to help increase information provided to the market on ESG matters
- Research houses to understand risks and opportunities and to highlight the need for targeted research on sovereign bond ESG matters
- Academia so that we can highlight the need for additional research on ESG outside of equities, corporate debt and property. Indeed, we are partnering with the UTS on joint research projects to fill this void.
- Other key participants within financial markets such as clearing houses and exchanges, which have the potential to perform new and innovative functions with respect to ESG
- Policy makers and regulators, whose interests are often aligned with ESG-aware investors due to taking a longer-term focus than private financial market participants
- Investment bank capital market desks and dealer panels, who through their market-making role can advise sovereigns on ESG issues that might be material to pricing and would increase the attractiveness of their bonds.

a. Ardea's Commitment to Engagement

As part of our commitment to the PRI we seek to be active owners[4,5]. Ardea's active ownership and engagement goals include:

- To help sovereigns better understand the increasing ESG demands of investors
- To convey expectations and concerns on behalf of our clients
- To promote discussions between investors, sovereign issuers and other stakeholders
- To increase the information provided to the market on ESG matters
- To extract ESG information important for our analysis
- To encourage ESG data transparency

b. Engagement challenges unique to the Sovereign bond asset class

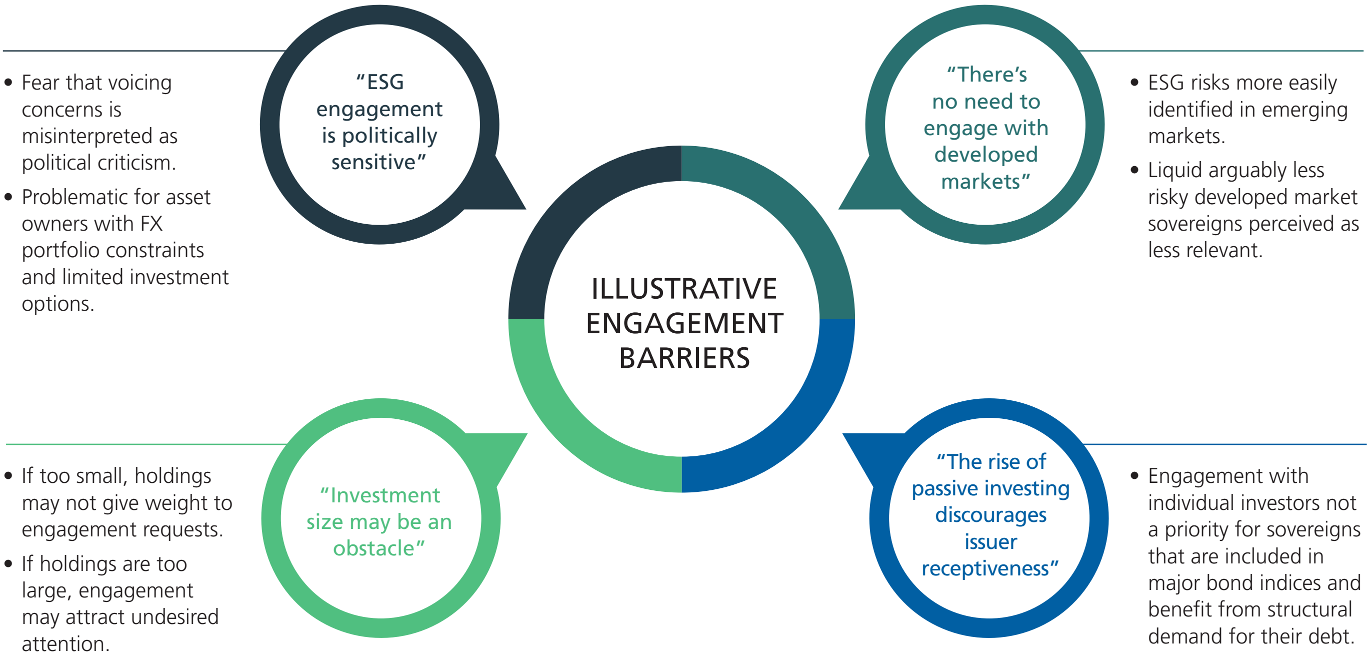
UNPRI recognizes the engagement challenges posed for fund managers operating in the fixed income markets, but also highlights the necessity to differentiate engagement from lobbying:

"It comes with challenges though. In particular, the terms active ownership and stewardship – at the core of Principle 2 of the six Principles for Responsible Investment and typically associated with equity investing – are not particularly appropriate in a sovereign debt context, as investor engagement can be misinterpreted as lobbying, advocacy or an attempt to interfere in governments' policy choices. Direct engagement between sovereign bondholders and government officials should not be confused with advocacy or lobbying." [6]

4 https://www.unpri.org/defining-objectives-and-measuring-the-effectiveness-of-engagement-in-fixed-income/2926.article

5 https://www.unpri.org/sovereign-debt/esg-engagement-for-sovereign-debt-investors/6687.article

6 PRI https://www.unpri.org/sovereign-debt/esg-engagement-for-sovereign-debt-investors/6687.article



Source: PRI https://www.unpri.org/sovereign-debt/esg-engagement-for-sovereign-debt-investors/6687.article

From our perspective, engagement with governments also creates a number of other unique challenges. These include the inability of the investor to divest, or to withhold capital. This can arise because the investor is required to hold government bonds, for regulatory or prudential reasons, and so the threat of divestment carries less weight than it does for other ESG assets such as corporate bonds or equities. This is particularly relevant for the investor's own home-country government bonds.

A further challenge of engaging with government issuers is that issuing agencies generally don't have the discretion to set policies and take decisions with respect to mitigating ESG risks. These decisions are usually reserved for the government itself. That said, engagement and feedback through the appropriate channels is important in shaping the advice that is provided to governments.

Our approach to engagement is to utilise our long-standing communication channels with government issuers to raise ESG issues that are deemed of importance by asset owners and fund managers. We also believe it is important to receive feedback and communication from government issuers as to the challenges and constraints they are facing, with a view to raising awareness within the investor base.

This frank and open approach has worked well for many years in terms of investor communications more generally and has resulted in government issuers maintaining strong relationships with the market and a very strong focus on investor outcomes. We see the ESG engagement process as highly consistent with existing practice.

c. How Ardea engages

Engagement is undertaken by the portfolio managers/analysts and the newly created Research team that will provide a support role for engagement.

i. How Ardea prioritises engagement activities

Ardea prioritises engagement with issuers of all bonds held in investment portfolios, and all elements of our engagement framework apply to all portfolios we manage. All elements of the Engagement framework are applicable to all Ardea portfolio managers/analysts. Mandatory engagement activities include:

- discussing ESG considerations as part of a client's periodic portfolio review
- discussing ESG in some form at all meetings with issuers (this can take many forms – for example raising concerns on behalf of clients, asking about ESG initiatives, advice regarding TCFD reporting)

Activities are prioritised as a function of:

- Relevance to our strategy
- The degree to which we think we will have impact
- Relevance to our clients

ii. How Ardea undertakes engagement activities

Direct engagement with Sovereign issuers comes with a different set of challenges and constraints when compared to engagement with corporations issuing debt or equity. It is important that our engagement activities do not appear to be lobbying or attempting to interfere in government policy. Whilst engagement with issuers may be somewhat constrained when compared to other asset classes (particularly with respect to principle 2 regarding active ownership), there are still many ways for Ardea to engage. The first is to recognize that engaging with issuers and alerting them to the expectations of our clients with respect to ESG is not lobbying. Second, direct conversations which seek out an understanding of an issuer's ESG policy is a very clear message that ESG is of importance to not only the fund manager but the asset owner. Third, engagement with issuers can help provide insight regarding attitude toward and likelihood of green bond issuance (see section 5). Engagement is facilitated through one-on-one investor feedback sessions with all issuers of bonds in our portfolios. Given our focus as a primarily government-only investor the universe of issuers is manageable, and engagement can occur frequently enough to develop a dialogue and influence outcomes.

And finally, there are many avenues for engagement outside of direct engagement with issuers which have a material and direct impact with respect to promoting acceptance and implementation of the Principles within the investment industry (i.e. principle 4). These alternative engagement paths include:

- Engagement with the media about ESG risks and aspirations. An example is found here.
- Working with academic organisations such as the University of Technology so as to contribute to the ESG industry knowledge base and academic literature. For example: https://www.fssustainability.com.au/ardea-uts-partnership-to-bring-ai-to-fixed-income-analysis
- Engagement with research houses which specialise in fixed income research

iii. Monitoring and escalation process for engagement activities

Engagement activities are logged in a dedicated tracker and file notes prepared summarising each engagement activity. This ensures that engagement activities can be tracked, and progress assessed. Reporting on the results of engagement activities, and escalation, occurs through the formal inclusion of ESG as part of Ardea's weekly risk and strategy meetings.

iv. Collaborative initiatives that could increase impact

As reflected above, Ardea views issuers as only a single component of a wider engagement process. Engagement with a broad range of industry stakeholders (refer section 3) is in our view most likely to deliver collaborative initiatives that improve ESG outcomes. Collaborative initiatives could include:

- Being a signatory to the Global Investor Statement to Governments on Climate Change[7]
- Advocating alongside other industry stakeholders for the issuance of green bonds by the Commonwealth of Australia
- Supporting and encouraging direct ownership of, and initiation of, national-level sovereign infrastructure projects that produce green assets owned by the Commonwealth. If ownership is retained, these assets can provide a hedge to other brown assets that mitigate the Commonwealth's overall ESG risk profile
- Supporting initiatives of the State issuers in Australia to increase the creation of green assets through infrastructure investment programs
- At an international level, contributing through our research activities to structural and longer-term findings that strengthen the underpinnings of global ESG initiatives
- Considering specific initiatives to introduce ESG-positive issuance in new sectors such as restoration bonds, to sit alongside other social outcome linked instruments.

d. key issues on which Ardea engages with sovereign bond issuers and examples

There are key ESG factors on which we engage with sovereign bond issuers, of which are outlined below.

i. Green Bonds

An example of engagement is apparent for an investor considering owning a government issuer's green bonds. The integration process may conclude that green bonds represent a better balance of risk/reward than the issuer's other securities, and as such a decision to invest in green bonds may be made.

While this represents an optimal outcome from the perspective of the investor's own return, it ignores the still-large pool of the issuer's outstanding conventional bonds. ESG engagement is about changing the issuer's approach to their entire asset base and not cherry-picking individual assets to the potential benefit of the investor, but perhaps with broader detrimental externalities that might otherwise run unchecked.

In this respect ESG is consistent with focusing on social outcomes rather than pure investment ones, though ultimately improvements in social outcomes of course support investment ones.

Other practical examples that arise during engagement discussions relate to difficulties in sourcing enough green investment programs to underpin the issuance of green bonds. Not all issuers function as large investors or asset owners in their own name, and so issuance of green bonds may be constrained in practice, thus improvements in other areas may take greater focus.

7 https://theinvestoragenda.org/focus-areas/policy-advocacy/

Further considerations involve liquidity constraints and the tendency of many investors to buy and hold green bonds, consistent with strong demand for the asset class. While this is an excellent outcome from a funding perspective, it is a poor outcome from a liquidity perspective. Investors may be better served therefore by engaging with the government issuer to ensure that their practices in all areas are lifted, such that ESG risks are reduced across all existing lines, thus resulting in better ESG outcomes, but without coming at the cost of a bifurcated market or reduced liquidity for certain lines.

We expect further nuances and considerations will arise as the engagement process continues.

ii. Climate Change

Our engagement with issuers with respect to climate change is intended to span the wide range of negative risk factors that issuers face, and positive steps that can be taken to mitigate these. Key components of this engagement include:

- Focusing on helping sovereigns better understand the increasing ESG demands of investors and to convey expectations and concerns on behalf of our clients, particularly with respect to physical and transition risks
- Conveying any specific ESG risks identified through our integration process that require mitigation.
- Informing issuers of industry developments and innovation that have support from the investor base, and which therefore represent an opportunity for issuers.
- Seeking to extract ESG information from issuers that is important for our analysis but that would otherwise be unavailable.

iii. Modern Slavery

Ardea strongly opposes modern slavery in all forms, from first principles and with respect to specific risks proscribed by regulation. Ardea takes steps to actively counter modern slavery practices throughout its business, in its client and supplier relationships, and in its engagement with the industry and with issuers.

Measures that Ardea is actively undertaking include:

- Reviewing the modern slavery statements for Australian states and territories under the Modern Slavery Act 2018. These are due in March 2021.
- Engaging with the AOFM, which is the issuer of Australian government bonds, to understand their perspectives on modern slavery. We will document these engagements as part of our reporting policy. Given our limited exposure to modern slavery risks, we believe Engagement on these matters is the best avenue via which to signal its importance to issuers on behalf of our clients.
- Participating in a review of practices by a key supplier, Challenger Limited. Challenger Limited is covered under the federal Modern Slavery Act and is currently reviewing its processes and procedures to reduce the risk of modern slavery throughout its operations and supply chain. This involves continuous monitoring and actions which will be put in place as risks are identified. Challenger will publish a Modern Slavery Statement in accordance with the requirements of the Modern Slavery Act.
- Inclusion of specific disclosure criteria and other criteria to address Modern Slavery risks in our agreements with clients and suppliers.
- Engagement on specific Modern Slavery risks with issuers, as part of our broader ESG engagement process.
- Consideration of Modern Slavery specific criteria in the know-your-customer (KYC) processes performed on our behalf by Fidante Partners, a wholly owned subsidiary of Challenger Limited.

Steps already taken to counter modern slavery practices arising in Ardea's business, clients, suppliers, and investments include:

- A low level of complexity in our business, with no reliance on offshore suppliers or opaque external supply chains.
- The modest size of our business: our headcount ensures that there is complete visibility of management through to all areas of the organization.
- The narrow focus of our investment universe on highly-rated government bonds from countries meeting high standards of governance, and high investment grade credit. This is not to say that no modern slavery risks arise within these investments, but that oversight and monitoring is well established, and thus the risk of egregious practices escaping undetected is low.

In addition to active measures being taken to counter modern slavery, Ardea also ensures that all regulatory requirements relating to Modern Slavery are met, specifically:

- Our consolidated revenue falls below the threshold where regulation requires companies in the Commonwealth and in New South Wales to report, so we are considering these initiatives for best practice reasons given that we are not currently required to comply with the Act.
- As noted above, our key supplier Fidante Partners is a wholly owned subsidiary of Challenger Limited, who is required to report under the Modern Slavery Act.

6 ESG Reporting

In addition to the UNPRI reporting requirements, we have established a log which will track the ESG risks and opportunities we consider and monitor as part of the portfolio construction process as well as our engagement activities. We will share these activities and analysis with clients as part of the periodical portfolio review.

With respect to climate change, we are supportive of and seek to follow the recommendations as described in the "Task Force on Climate Related Financial Disclosures"[8] (TCFD). Specifically, we seek to "disclose the metrics and targets used to assess and manage relevant climate related risks and opportunities where such information is material". We are in the process of developing a multi-year strategy to enable disclosures in accordance with the TCFD. The disclosures will include a focus on climate metrics and targets, including scope 1, 2 and 3 emissions[9], climate risk management and climate strategy[10,11,12].

7 Conflicts of Interest

In accordance with regulatory requirements, Ardea maintains a conflict of interest policy to ensure that any actual, potential and/or perceived conflict of interest that may arise both between itself and its clients, a staff member and a client and between clients are identified, prevented or managed and disclosed in the best interests of clients. This Policy sits within our Governance Risk and compliance (GRC) Framework and the Ardea Compliance Manager is responsible for ensuring adherence with this Policy.

All Ardea staff are required to complete annual conflicts of interest training to ensure they have the appropriate understanding to identify and report conflicts of interest which can then be prevented or managed pursuant to its conflicts of interest framework.

8 Compliance Policies

The Ardea ESG Policy is part of the overall Governance, Risk and Compliance (GRC) Framework, managed by the Ardea Compliance Manager. The Compliance Manager is responsible for the implementation and day-to-day operation of the GRC Framework, with the support of the Fidante Compliance team's resources. All staff are provided with a copy of Ardea's GRC Framework and are required to sign the GRC Framework Acknowledgement to acknowledge that they have read and will abide by the policies and procedures contained within it. As the ESG Policy forms part of this Framework the Compliance Manager is responsible for ensuring adherence with this Policy.

9 Reporting

Ardea discloses our ESG Policy publicly and disclose our PRI Transparency Report to our clients. We also monitor and report on our ESG activity on an annual basis.

10 Key People

Historically, our PMs/ investment analysts have been responsible for performing RI/ESG analysis, however over time our newly created Research Team will play a greater role in carrying out this analysis. The research team works with the PMs to identify trade ideas, risks and opportunities through research and the development of technology. ESG is an integral part of the trade idea generation and risk management processes.

Laura Ryan has recently joined Ardea as Head of Research and will be leading on future research projects in sustainable investing. Laura is an internationally published academic with papers appearing in 'The Journal of Portfolio Management' and 'The Journal of Forecasting', among others. Previously, Laura was Senior Vice President (Quantitative Research) and a member of the Australian senior management team at PIMCO. With 21 years investment experience, Laura's other roles include Manager of Quantitative Strategy at Commonwealth Bank, Quantitative Manager at AMP Capital and Lecturer in Statistics at the Australian National University (ANU). Laura holds a Ph.D. in Statistics from the ANU, a Master of Quantitative Finance from the University of Technology Sydney and an Honours degree in Actuarial Studies from the ANU.

8 https://www.fsb-tcfd.org/recommendations/

9 http://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme/Greenhouse-gases-and-energy
Scope 1 greenhouse gas emissions are the emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level. Scope 1 emissions are sometimes referred to as direct emissions.
Scope 2 greenhouse gas emissions are the emissions released to the atmosphere from the indirect consumption of an energy commodity. For example, 'indirect emissions' come from the use of electricity produced by the burning of coal in another facility.
Scope 3 emissions are indirect greenhouse gas emissions other than scope 2 emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business. Some examples are extraction and production of purchased materials, transportation of purchased fuels, use of sold products and services, and flying on a commercial airline by a person from another business.

10 https://www.tcfdhub.org/metrics-and-targets/

11 https://www.tcfdhub.org/strategy/

12 https://www.tcfdhub.org/risk-management/

Laura will be leading some of the current and future ESG projects in conjunction with leading academic institutions. This will include the previously mentioned work on climate change, as well as looking at how best to approach the issue of engagement with sovereigns on issues of sustainability.

Tamar Hamlyn leads interest rate and macro strategies for Ardea and is responsible for strategic views on the economy and financial markets. Tamar co-founded Ardea, a specialist fixed income investment management firm, in 2008 and has since helped grow the firm to $18bn of client assets under management (as at November 2020). Tamar's focus at Ardea includes the economic outlook and its impact on financial markets, and the implications for portfolios and investment strategies. He has a special interest in the policy actions of central banks and their impact on financial markets and the real economy, including inflation. Tamar focuses closely on both domestic and international developments, and he supports Ardea's client education initiatives, focusing on how innovative strategies can better achieve investment objectives. Prior to Ardea, Tamar was a portfolio manager in the fixed income team at Credit Suisse Asset Management. Tamar commenced his career at the Reserve Bank of Australia, where he worked from 1999 to 2007. He gained broad experience across a number of roles at the RBA including policy analyst, economist, financial analyst, and portfolio manager. Tamar is a graduate of the Australian Institute of Company Directors (AICD). He was awarded the CFA designation in 2004, and graduated with Honours in Economics from the University of Queensland.

Alex Stanley joined Ardea in July 2020 as a research analyst. Alex helps clients to solve investment problems with research and to understand Ardea's unique relative value investment strategy. Alex has 10 years of experience in financial markets research. Prior to Ardea, Alex was a Senior Interest Rate Strategist at National Australia Bank in Sydney and a Fixed Income Strategist at the Commonwealth Bank of Australia in Sydney and London. His research focused on high grade bond and interest rate derivative relative value analysis, strategic and tactical trade recommendations and broader fixed income and macroeconomic themes. Alex has contributed to strong research rankings in industry polls. He has supported a wide range of clients, including fixed income fund managers, hedge funds, central banks, corporate borrowers and bank balance sheets. Prior to working in markets research, Alex spent two years at Suncorp Bank, focusing mostly on treasury balance sheet management. Alex has a degree in Finance with first class honours from Queensland University of Technology.

Tracey Hunter. Tracey Hunter is the Chief Operating Officer (COO) at Ardea and is responsible for ensuring growth is undertaken in a measured and appropriate manner. Tracey joined Ardea in 2019 to support the boutiques strong growth. The COO position is a newly created role that will take on new responsibilities as well as a number of tasks that were previously shared by the rest of the team, allowing investment personnel to focus on investing. Tracey has oversight of portfolio and risk management systems development and continual improvement processes to ensure that, as technology improves, so do Ardea's systems and ability to manage risk and deliver consistent returns. In addition, Tracey is responsible for all of the operational requirements of the business which includes monitoring and supporting day-to-day tasks to ensure the deliverables of the business are met. Prior to Ardea, Tracey spent nearly six years with Challenger Limited in various roles, including Head of Investment Operations Support and Derivatives for three years. Tracey holds a Bachelor's degree in Economics.

Finally, Ardea works closely with its minority shareholder and service provider Fidante Partners, who have a dedicated ESG Specialists to continuously improve and develop Ardea's approach to and integration of sustainable investing practices.

Lisa Jordan joined Ardea in 2020 as a Relative Value Research Analyst, reporting into the Head of Research. In her current role, she is developing infrastructure for Ardea's idea generation process in order to create investment ideas using quantitative analysis. Prior to Ardea, Lisa worked as an Execution Trader for the American hedge fund Point72 Asset Management in London, where she traded Global Macro products with a focus on Relative Value. She started her career as a Trader at HSBC on their Graduate Program in London, where she worked on the G10 FX Forwards Trading, Rates Sales and Emerging Markets Rates Trading desks. Lisa holds a Bachelor of Science degree in Business Administration with a specialization in Finance from the Frankfurt School of Finance and Management.

Agnieszka Cochrane. Agnieszka has a background in ESG integration in investment products, having previously worked at Newton Investment Management in the UK (Newton is a London-Based global investment management firm with a strong focus on ESG Integration). Agnieszka consults with all investment teams to review and update existing ESG policies and help them to clearly define and articulate their ESG beliefs; and provide support to managers to integrate their ESG beliefs into an investment process within the relevant asset class.

Charlotte O'Meara. Charlotte has a background in risk management across funds management having previously worked in Challenger Funds Management enterprise risk management function and for Pendal Group. Prior to this Charlotte was a risk management consultant for EY Financial Services Risk Management. Charlotte consults to boutiques on ESG integration, in particular the management of ESG risks across their investment portfolios, articulating their ESG beliefs and processes and asset class specific guidance on ESG integration.

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