PRI
Principles for Responsible Investment

An investor initiative in partnership with UNEP FI and the UN Global Compact

Responsible investment in infrastructure

A compendium of case studies

September 2011

THE GLOBAL COMPACT

UNEP Finance Initiative
Innovative financing for sustainability

The Principles

The Principles for Responsible Investment were launched by the UN Secretary-General at the New York Stock Exchange in April 2006. The six Principles are:

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

Contributions

The PRI Secretariat is grateful to the following people for their contributions to this compendium:

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Special thanks go to members of the Infrastructure Case Studies Working Group and Infrastructure Steering Committee.

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Introduction
James Gifford, Executive Director, PRI

The following compendium presents eight case studies that demonstrate how our signatories are implementing responsible investment related policies and processes and assessing the impact of ESG issues for infrastructure investments.

Infrastructure is becoming an increasingly popular asset class amongst institutional investors. According to a recent survey by one of our signatories, institutional investors' allocations to infrastructure have grown by almost 370 per cent over the past three years. The 2011 results of the PRI's Reporting and Assessment survey indicate that 18 per cent of PRI signatories now invest in infrastructure. Of these signatories, 44 per cent invest directly in unlisted infrastructure, 62 per cent invest indirectly, and 6 per cent invest in both. In January 2011, the PRI Secretariat established a work stream to support implementation of the PRI in this asset class.

This compendium has been produced to highlight how PRI signatories implement responsible investment practices in infrastructure investment. The report begins with an overview of the specific characteristics of infrastructure investments and discusses what responsible investment means in this asset class. From there, a diverse range of case studies by direct and indirect investors in unlisted and listed infrastructure are presented.

We are grateful to all the signatories who have contributed a case study to this compendium and to the Infrastructure Case Studies Working Group, led by Jordan Berger from OPTrust, for overseeing its development. We hope that the publication provides an insight into how PRI signatories are currently implementing the Principles in their infrastructure assets.

James Gifford
Executive Director, PRI

Responsible investment in infrastructure

An overview by Azhar Abidi, Director Responsible Investment, Industry Funds Management and chair of the PRI's Infrastructure Work Stream Steering Committee

What is infrastructure?

Infrastructure is a unique asset class that shares characteristics of private equity, fixed income and listed equities. Infrastructure assets are typically physical investments like toll roads, railways, seaports, airports, power stations, electricity transmission lines and gas pipelines. They provide essential services and often involve governments as regulatory or funding counter-parties. Revenues from infrastructure assets may be regulated or based on demand or availability. What they all have in common are long economic lives, high capital costs and high barriers to entry.

Railways, seaports, airports, and power stations are examples of demand-based assets, where investors are exposed to the actual use of the facility for the generation of revenue. Availability-based assets include public private partnerships where investors finance, build, own and operate, say, a toll road and receive a payment from a government for making the asset available for use under a contract. Regulated assets such as an electricity transmission line earn a regulated return on capital to account for operating costs and capital expenditure. In most cases, revenue from these kinds of infrastructure assets is predictable and offers high cash yields.

With these benefits come a distinctive set of investment risks. For example, a primary or greenfield infrastructure project includes a construction phase prior to commencement of operations and would thus have a higher risk profile than that presented by a mature asset. Examples of risks associated with construction include delays, cost overruns, government approvals and commissioning risk. Demand forecasts for greenfield projects adds risk because of the speculation involved in forecasts in the absence of historical demand. At a minimum greenfield assets need environmental assessments to meet legal and regulatory requirements but the design should also anticipate climate change risks, and this needs a longer-term perspective. Equally, if community concerns are not properly addressed before the project is completed, the risk of future regulation or even litigation cannot be ruled out.

In contrast to a greenfield project, a brownfield infrastructure asset is typically an existing asset with a mature demand profile. Its risks are lower due to lower capital expenditure and a well-established operational track record. However, the risk profile can increase if debt is allowed to increase or if the asset is run down to cut costs. Brownfield assets that require substantial capital improvements over time can have risks more akin to greenfield developments.

Infrastructure assets also have many stakeholders alongside investors, such as government regulators, lenders, communities co-located with and affected by the asset, and the public that uses or depends on their facilities. Due to the long-term nature of infrastructure assets, investors need to ensure that they take into account all possible issues that these investments might face over the long-term. The risk profile for individual assets is also affected by the overall maturity of the infrastructure market in a given country. Those nations with clear legislative and regulatory guidelines in place, a proven ability to manage stakeholder concerns, an established pipeline of new assets, and record of successful asset sales have a distinct advantage.

Unlike listed investments, unlisted infrastructure assets are illiquid and require a greater focus on shareholder arrangements and valuation metrics. All infrastructure assets, regardless of whether they are greenfield or brownfield, need strong boards and an alignment of interest between management performance and long-term shareholder value.

Can you be a responsible investor in infrastructure assets?

Investors have a fiduciary duty to act in the best interests of their beneficiaries and what differentiates exceptional investors is how well they are able to create value and mitigate risks – including environmental, social and governance (ESG) risks – in order to discharge this duty.

In this context, responsible investment can be interpreted as a risk framework that takes account of all material and relevant risks – including those related to ESG concerns – during the investment decision-making process. If the ESG impacts of investing conflict with the duty to act in the best interests of beneficiaries, then the risks need to be considered carefully because they may be entwined with legal and financial considerations. Investment decisions that result in complicity in human rights violations, deforestation, pollution and exploitative labour pose risks to profits, brand and reputation, and, ultimately, return to shareholders. Clearly, some of these risks may not manifest in the short term but pension funds are by definition long term investors, and for such investors, consideration of ESG risk is so inherently linked with long term financial success that their fiduciary duty would be breached if they were failing to appraise it. Conversely, when managed well, ESG issues can be a source of value creation.

Purpose of this compendium

This compendium has been written to assist infrastructure investors to implement responsible investment related policies and processes into their infrastructure asset class. The case studies highlight current practices by experienced investment managers and asset owners.

It should come as no surprise that many of the case studies are from Australian signatories. Australian investors have been active in infrastructure since the 1990s and their experience offers valuable insights for practitioners around the world. Industry Funds Management (IFM) provides a case study on how a direct investor in unlisted infrastructure can incorporate ESG into its policies and processes. IFM's approach is a result of its ownership model where most of its investor-owners are pension funds who invest in unlisted infrastructure for the long term. RARE Infrastructure provides an interesting case study on how ESG can be incorporated on a portfolio basis for listed infrastructure. Colonial First State has a long track record of implementing ESG considerations in its investment strategies. Its case study explains how the infrastructure investment team is trained to consider relevant ESG issues across the portfolio.

Asset owners have traditionally invested through fund-of-funds but increasingly, they are investing directly and taking a more active role in the investment process. Among the European case studies, CDC Infrastructure explains how it requires environmental impact assessments in its investment appraisal. Public interest concerns by its parent, Caisse des Dépôts, play a key role in this process. Similarly, APG's case study describes ESG requirements in manager selection, demonstrating the growing importance of ESG in mandates.

The PRI and I hope that the collection of these case studies will give practitioners a starting point to consider their own approach to responsible investment. Many investment managers and asset owners have written the case studies and shared their experiences. I would like to thank each of them for being involved with this publication and for devoting their time and thought to this subject. Readers will inevitably draw their own conclusions but at least one thing should no longer be in any doubt – that responsible investment is not a mystery. It is a living and breathing part of making investment decisions. It is not an "add-on" or something separate. It is simply doing things better.

AustralianSuper
ESG and the longterm ownership of infrastructure assets

Signatory type: Non-corporate pension fund

Country: Australia

Established: 1984

AUM: US$ 44 billion

Type of infrastructure investment: Indirect unlisted infrastructure

Approximate percentage of AUM in infrastructure: 11 per cent

Introduction

AustralianSuper, one of Australia's largest all-profits-for-members pension funds, has been investing in infrastructure since 1994. Infrastructure plays an important role in the fund's asset allocation by enhancing returns and reducing volatility. Over a third of the 20 largest assets in the fund are infrastructure assets (the remainder are Australian equities). Several of the infrastructure assets have been owned by our fund managers since the 1990s. We believe it is important that our fund managers work to enhance the long term sustainability of these assets on an ongoing basis.

ESG and unlisted infrastructure

For AustralianSuper, the sustainability of infrastructure investments includes the ongoing delivery of operations (generally the provision of a service to the community) as well as profits and returns. Applying ESG considerations to the management of infrastructure assets assists in the assets delivering as required and enhances the returns to investors, and ultimately to our members.

As an example, one of our oil pipelines in the US is currently benefitting from the foresight of the board that expected higher safety standards than required from the outset. After the BP oil spill, the regulatory requirements for safety at oil pipelines were increased. However, our asset had already invested above this level of safety, thereby reducing the need for remedial action over the years. This resulted in providing a safer environment for employees and increased profitability. Other pipelines have now had to incur an added cost to improve their safety.

Continuous improvement of existing assets

As many of the infrastructure assets in the portfolio were acquired at least a decade ago, it is important that our fund managers not only consider ESG issues in new investments, but also review existing assets.

One of our infrastructure managers has used detailed questionnaires based on the Global Reporting Initiative to analyse the impact of ESG issues for each of its 28 existing assets. This analysis and benchmarking across the assets has enabled the fund manager to:

- improve the governance at each of the boards on which it sits;
- arrange for four Australian airports to work together to develop market best practice health and safety processes based on practices from each of the airports; and
- measure the electricity and water usage and carbon emissions of each its assets on a regular basis. This enables the identification of energy savings for many assets.

> *We are long term owners of infrastructure assets. Considering ESG in the management of these assets is crucial for enhancing their long term value.*

Suzanne Findlay (Investment Manager)
AustralianSuper

These efficiencies show that material improvements can be made if ESG issues are considered and acted upon.

Climate change risks

AustralianSuper participated in the **2011 Mercer report on climate change** scenarios and strategic asset allocation because asset allocation has been a significant contributor to the fund's performance relative to peers. However, the asset allocation which has worked to date may not be appropriate in a world where the physical impacts of climate change affect assets in different ways.

The Mercer report identified infrastructure as a sector where climate change had significant potential to affect the returns of the fund, positively or negatively. This is because the impact of climate change on infrastructure assets is very dependent on the type and age of the asset and its location. As an example, the management of an airport located close to the sea and in an area expected to have an increase in the number of severe storms, will have to plan differently than the management of an airport located inland in a more benign environment.

To better understand the potential risks, AustralianSuper is working with an environmental engineering consultant to understand the possible physical impacts on its largest infrastructure assets in 2030 and 2050. We will then work with the fund managers and management at the companies to ensure decisions are made in the context what is expected in the future.

Key takeaways

- Owners of unlisted infrastructure assets have a responsibility to manage the assets for their long term sustainability. Using ESG considerations provides a framework for continuous improvement of infrastructure assets which ultimately enhances returns;
- Climate change can be a significant risk for infrastructure assets, based on their location and the type of asset. It is crucial for owners and management to understand the expected future physical impacts on their assets and to start planning for them now, so future returns remain intact.

More information:
www.australiansuper.com

Industry Funds Management

Formulating an ESG policy and integrating it into the due diligence process

Signatory type: Mainstream investment manager

Country: Australia

Established: 1995

AUM: US$ 29 billion

Type of infrastructure investment: Direct unlisted infrastructure

Approximate percentage of AUM in infrastructure: 31 per cent

Industry Funds Management (IFM) is one of the largest global infrastructure fund managers with direct investments in airports, toll roads, utilities, public private partnerships, sea ports and renewable energy companies around the world. We have an infrastructure portfolio comprising 26 assets held in two funds. A specialist team of 35 dedicated staff focuses on all aspects of acquisitions and asset management and is assisted by in-house legal counsel and tax specialists.

Owned by some of the largest not-for-profit pension funds in Australia, IFM is differentiated via its ownership structure and philosophical alignment that is focused on investors. Almost 90 per cent of IFM's owner-investors (by funds under management) are signatories of the PRI.

Reasons for developing an ESG policy

Infrastructure assets have long life spans hence the investment appraisal and asset management processes must consider all risk factors to ensure that the value of investments is maintained over their life. As a long-term investor, we consider all material environmental, social, governance and reputational factors (alongside financial, tax and economic factors) in our risk assessment.

IFM has a board approved ESG policy that applies to infrastructure and all other asset classes it manages. The policy objective is to protect and enhance the value of our investments for the long-term.

> *"Our ESG checklist has over one hundred comprehensive questions covering greenhouse gas emissions, water supply, waste, environmental pollution, labour and community relations, governance and workplace safety."*

Azhar Abidi (Director, Responsible Investment)
Industry Funds Management

Decision making approach

IFM's investment process commences with an initial review by the investment group, then comprehensive due diligence to final approval by the IFM Investments Committee. For very large transactions, the investment decision is referred to a Board Investment Committee for final approval. Where executives are concerned that a potential investment may not be in accord with IFM's ESG policy, we require preliminary approval by the Investments Committee prior to commencing due diligence. All investment decisions are formally peer reviewed to provide an additional level of scrutiny prior to submission to the Investments Committee.

The weighting given to different ESG factors depends on their materiality on asset risk and returns. Depending on whether they are qualitative or quantitative, ESG factors are integrated into the revenue and cost profile or in the valuation through the discount rate.

Due diligence process

During the due diligence process for new investments, the investment group uses a detailed guide to assess ESG risks against IFM's policy criteria. Developed on the basis of our experience of investing in this sector, and with reference to international benchmarks such as the IFC Sustainability Guidelines, the purpose of this guide is to highlight ESG issues that may not be readily identifiable during the course of routine due diligence. The checklist has over one hundred comprehensive questions on topics such as greenhouse gas emissions, water supply, waste, environmental pollution, labour and community relations, governance and workplace safety. Findings from this review are factored into the investment decision and noted in the investment paper submitted to the Investments Committee.

The process is illustrated on the following page >>

Due diligence process

Risk appraisal

- Preliminary review of investment opportunity
- Consideration against investment criteria and IFM Group Corporate Environmental, Social and Governance Policy
- Appointment of external consultants

Due diligence

- Full due diligence and assessment of all material risks including ESG factors
- IFM's specialist consultants engaged
- Formal peer review for additional scrutiny
- Preparation of IFM base case and investment paper

Investment decision

- Investments Committee approval
- Board Investment Committee approval
- Negotiation of sale and purchase agreement and shareholders agreement, if required
- Settlement/financial close

We routinely engage environmental, legal, commercial and other technical consultants to assist in due diligence. We also have access to a range of specialist advisors who bring insight and knowledge in their sectors and are invaluable in ensuring that IFM's investments are 'world class' when it comes to safe, profitable and sustainable operations.

Closely aligned to the UN Global Compact, our ESG policy seeks to ensure that new and existing investments are not culpable of environmental damage, gross corruption, systemic violation of human rights or any other serious violations of fundamental ethical norms. Our approach is based on the belief that well-governed companies with responsible ESG policies make for better long-term investments. This approach is summarised in our investment process below:

>> Environment

Environmental risks are reviewed in terms of potential costs (carbon taxes, costs related to reducing pollution), legal and compliance issues and reputational impacts. The risk management protocols of companies are reviewed, including their historical performance.

Environmental considerations are also relevant to asset valuations. For example, climate change may not be apparent in the near future but it may impact an asset's operational and financial performance in the long-term. In a recent sea port acquisition, we used a technical consultant to ascertain that a rise in sea levels and flooding would not impact port operations for the foreseeable future.

>> Social risk

In order to avoid the risk of industrial action and litigation, we review social issues such as labour relations, enterprise agreements and workplace safety to identify and mitigate areas of concern. Human rights violations are unusual for infrastructure assets in OECD countries but nonetheless, we require compliance with international human rights accords which is over and above the usual requirement to meet local and national laws.

>> Governance

We acquire equity stakes in companies with significant influence and control to ensure that our interests as shareholder are represented at the board level. Governance risks are reviewed in terms of shareholder rights and protections through legal documents as well as board representation. We strive to ensure that shareholder agreements are negotiated with favourable indemnities and warranties as well as voting rights.

Key takeaways

- ESG research and analysis should be integral to the investment process and undertaken by mainstream investment professionals;
- ESG specialists, if used, should be financially numerate, familiar with the infrastructure sector, and have a strong commercial, technical and legal focus. They should be integrated and working together with investment professionals.

More information:
www.industryfundsmanagement.com

AMP Capital Investors

Developing an infrastructure ESG toolbox

Signatory type: Mainstream investment manager

Country: Australia

Established: AMP Capital Investors is the investment arm of AMP Limited, established in 1849

AUM: US$ 99 billion

Type of investment: Direct unlisted infrastructure

Approximate percentage of AUM in infrastructure: 6 per cent

Introduction

AMP Capital Investors (AMP Capital) is one of the world's longest standing infrastructure investors with over two decades investment management experience in utilities, transport and social infrastructure across Australia, New Zealand, China, India, the United Kingdom, Europe and the Americas. The team actively sources global investment opportunities for its managed funds and customised separate account mandates. It also utilises on the ground specialist asset managers who are responsible for active management of these investments throughout their lifecycle.

The quandary of specialist ESG knowledge

AMP Capital's infrastructure investment team recognises that ESG issues can impact the long term performance of its investment portfolios. As a result, they are considered throughout the lifecycle of the investment process; from identification of new investment opportunities to the active management of assets.

Not surprisingly (or uncommon to other PRI signatories), the biggest challenge faced by investment teams when integrating ESG factors in the investment process, is possessing the specialist knowledge required to navigate through increasingly complex issues such as climate change, evolving environmental legislation, rapid industrialisation, demographic shifts and trends, natural resource depletion and shifting societal sensitivities.

While infrastructure investments share some common characteristics, the specific risks relating to each investment opportunity can be quite unique and may vary greatly between sub-sectors, regions and individual projects.

Policy guidelines and checklists can be an effective means to canvass common ESG risk factors, however, there is the danger that they may be too generic to capture the unique risks factors inherent in each specific investment opportunity.

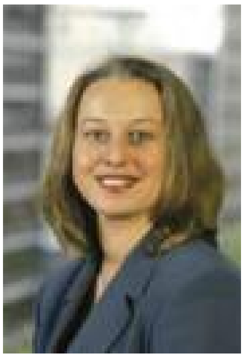
Infrastructure ESG Toolbox

The Infrastructure ESG Toolbox was designed to address the need for specialist knowledge relating to multifaceted ESG factors across a diverse range of sub-sectors and regions of the global investment landscape. The Toolbox's resources supplement existing investment policies and are utilised throughout investment decision making and ongoing asset management activities, such as:

- Due diligence of new investment opportunities
- Completing internal ESG audits for existing assets
- Assessing the ESG practices of an investee company's supply chain
- Integrating ESG practices in strategic planning and operations
- Managing ESG specific issues that arise as a board director

“The quality of investment decisions and ownership practices are enhanced by specialist resources that assist an investment team to navigate through a complex array of ESG factors”

Alison Cunniffe (ESG & Sustainability Manager, Infrastructure)
AMP Capital Investors



The Toolbox comprises a collection of internationally recognised best practice guidelines and sector/ issue specific resources, designed to assist the infrastructure investment team in dealing with ESG issues of varying materiality. The Toolbox is organised into sector, region and ESG specific sections to provide intuitive navigation to resources of relevance. Sources of information include:

- Internationally recognised best practice codes and guidelines
- ESG specific frameworks and checklists (both external and proprietary resources)
- Contemporary thought leadership and research papers
- In-house proprietary research and insights
- Government, regulator and community stakeholder portals
- On-line training resources

To ensure the ESG toolbox continues to evolve, each new due diligence process, internal ESG asset audit or active management activity feeds into it. It is this continuous refinement that ensures coverage of a comprehensive range of ESG related issues and reflects the increasing sophistication of ESG consideration and integration techniques, not to mention changing industry trends and standards, regulatory requirements and social sensitivities.

While the development of an ESG policy will address how it can be integrated into existing investment practices, it is the development of tools and access to knowledgeable resources that will determine the quality of ESG analysis and ultimately its impact.

Key takeaways

- Following development of ESG policy and process framework, access to specialist resources will enable investment teams to consider a comprehensive range of ESG factors;
- Building in-house ESG expertise can augment organisational capacity and more effectively manage costs relating to ESG analysis;
- Continuous improvement of tools and availability of resources is essential to strengthen the quality of ESG consideration.

More information:
www.ampcapital.com.au

PGGM Investments

Developing a process to integrate ESG in investment-decisions

Signatory type: Mainstream investment manager

Country: Netherlands

Established: 2008

AUM: US$ 138.02 billion

Type of infrastructure investment: Direct and indirect unlisted infrastructure

Approximate percentage of AUM in infrastructure: 1.5 per cent

Introduction

PGGM Investments (PGGM) invests in infrastructure worldwide for our clients due to the expected stable and attractive long-term returns. The investments include projects in the regulated sector and monopolies or those with long-term purchase contracts.

We consider ESG factors in all investment activities for our clients. We believe ESG factors impact the risk and return of our investments and responsible investment is an integral part of our investment policy and beliefs. For our infrastructure investments, two responsible investment activities are relevant as they relate to investment decision-making: ESG integration and targeted ESG investments. By ESG integration we mean 'systematically adding material ESG factors to existing investment processes'. 'Material ESG factors' are those which have a significant financial impact on the underlying investment. Targeted ESG investments are investments which not only contribute financial performance for clients but also generate a social return.

ESG integration process

In the fourth quarter of 2009 PGGM developed a structured approach to ESG integration comprising three phases for infrastructure investments: 'inventory', 'implementation' and 'internalisation'.

Our internal asset managers are the owners of the individual integration processes and specialists from the responsible investment department supervises and supports this work. One advantage of this model is that integration processes are implemented simultaneously across all investments, further raising awareness of ESG among internal and external investment managers. It also guarantees that all relevant investment and ESG knowledge is integrated.

Implications for infrastructure

Phase 1: Inventory

Because infrastructure is a very diverse investment category, we carried out a survey phase for six sub-sectors. ESG frameworks have been developed for gas storage, toll roads, distribution networks for gas, water and electricity, marine ports, telecommunications, and power plants. Desk research and conference calls with infrastructure and ESG analysts helped to find the relevant ESG factors. We also looked at research papers and existing ESG frameworks, such as the IFC.

Our survey showed that issues including biodiversity, human rights, climate change and stakeholder management can have a material impact on infrastructure. For example, failure to involve the local population in infrastructure projects can lead to lawsuits and delays, therefore reducing income. Climate change, particularly regulations or taxes on carbon emissions, can have major effects on the income and/or expenditure of power plants, toll roads and airports. This can also lead to a major change in assessing conventional and renewable power generation.

"By integrating ESG into our investment decisions, we align our process with the ESG criteria of our institutional clients. We look at both the opportunity and risk side of ESG factors to deliver a financial and sustainable return."

Henk Huizing (Head of Infrastructure)
PGGM Investments

At the end of 2009, PGGM took part in the Mercer project on climate change scenarios. Leading institutional investors and experts investigated how climate change could be included into strategic asset allocation and affect asset class performance, including infrastructure. The project shows that policymakers play a crucial role in managing climate change and the need for engagement as part of ESG integration.

Phase 2: Implementation

This is our current phase, where we analyse how to further strengthen current practice. For example, in new investment proposals the infrastructure team includes an ESG paragraph of ESG risks and opportunities. RI specialists are also involved in due diligence processes in relation to various investment proposals. This includes additional questions on human rights raised with the intended external manager prior to a new investment.

Specific next steps we are exploring include:

- developing a baseline measurement questionnaire, similar to our private real estate portfolio;
- developing a specific responsible investing policy for infrastructure that outlines our current ESG requirements for inclusion with contracts;
- generating ESG reporting requirements for funds.

Phase 3: Internalisation

In the next phase, ESG factors will form a natural part of the overall investment process. This means ESG factors are part of the normal routine of the investment process and are periodically assessed and adapted if necessary by the infrastructure team.

Other supporting activities

- We try to stimulate knowledge sharing among asset classes. For example, in June 2010 we organised an ESG integration workshop as a prelude to the individual surveys. The heads of the investment teams took part, together with representatives of the RI department and senior management. The investment teams gave all the presentations and supervised the work sessions. The aim of the workshop was to present best practices and exchange experiences gained during the ESG integration process.
- The head of the responsible investment team is permanently represented on our main Investment Committee, ensuring that important ESG investment decisions become a structural part of investment assessment.

Key takeaways

- Make the investment managers owners of the ESG integration process;
- Share ESG knowledge among your alternative investment managers;
- Taking a subsector approach to infrastructure makes the variety of ESG factors manageable;
- Take advantage of sustainable infrastructure opportunities for financial and social reasons.

More information:
www.pggm.nl/about_pggm/investments/investments.asp

CDC Infrastructure

Integrating environmental impact assessment into infrastructure investment decisions

Signatory type: Asset Owner

Country: France

Established: 2010

AUM: US$ 1.4 billion

Type of infrastructure investment: Direct unlisted infrastructure

CDC Infrastructure is a wholly owned subsidiary of Caisse des Dépôts, a public group signatory of the PRI whose strategy is based on long-term investment and public interest concerns. Our social and environmental responsibility is at stake in all our investment decisions and we are held accountable for it by our sole shareholder.

In 2010, CDC started developing a tool for evaluating environmental data for greenfield investments by comparison to a benchmark. As an investor in all types of major infrastructure development projects in France, such as high-speed railways, highways, bridges, and offshore wind farms, we needed a systematic way of considering the environmental impacts of our infrastructure investments. The tool was commissioned by the Caisse des Dépôts Strategy Department, and co-developed and shared with all CDC Group entities involved in infrastructure. The tool facilitates internal dialogue between Caisse des Dépôts' teams and helps us communicate more clearly with external project partners and other investors.

We use the tool in the three main stages of the investment process:

1. Responding to a call for tender and selecting project partners

When we consider submitting a proposal, we use the tool to assess the project's environmental impact. The tool covers around 15 questions.

On the next page is an example of applying the tool to a potential high-speed railway project.

> *“Integrating this analytical tool into our investment decision processes constitutes a new step in our responsible investment commitment and enables us to communicate our requirements to our investment partners.”*

Frédérique Savel (Investment Director)
CDC Infrastructure

Areas	Goals	Example questions
Water	• Quantitative and qualitative protection (surface and underground water)	• Is the project located in a flood zone? • Is it located in an area where the resource is limited? Etc.
Biodiversity	• Protection of ecosystems and species • Protection of environmental continuity	• Is the project located in protected zones? • Are vulnerable or endangered species present in the project zone? Etc.
Energy	• Energy savings and potential for renewable energy • Are there renewable energy sources available for the project?	• Does the asset require new sources of energy for operation?
Greenhouse gases	• Reduction of greenhouse gas emissions	• What greenhouse gas emissions are prevented by the project, compared to initial situation? *(Traffic studies on these topics are generally available before project launch)*

For each potential investment, questions are ranked according to three categories: necessary, important, and supplementary.

- If the majority of answers are negative in respect to these environmental criteria, our board of directors may decide not submit a proposal. Note however that that the environmental criteria form only one aspect of a decision – many other investment criteria are considered.
- In the case of an arbitrage between two investments due to limited equity availability, environmental criteria will play a role in selecting which project to finance.

Once we have selected a project and identified the environmental impacts that need to be managed, we choose project partners that have the capacity to deal with these issues. We then create a group agreement that includes principles for avoiding, reducing or compensating for environmental impacts. This is represented in the figure below. The principles are then included in the response to the call for tender.

2. Defining actions to mitigate and monitor environmental risks

The next step is to understand how the environmental issues identified become significant risks for the project. From there, we can define the actions needed to mitigate and monitor the identified risks. We request input from experts and present a detailed environmental management and sustainable development plan for the construction and operation phases of the project.

Examples of actions for a high-speed railway:

- Analysis of biodiversity specific issues such as flora inventories, hydro-biological data collection for waterways and fish ecosystem, molluscs, land mammals, frogs, insects and avian life assessment
- Hypotheses and results of carbon footprint calculations
- Solar plant feasibility studies
- Protection of water resources during construction

3. Monitoring commitments as a shareholder in the project company

Once the group has been awarded the contract, we become investors in the special purpose vehicle, or project company, and play an active role in its governance. We are therefore prepared to control and monitor the commitments made in the tender phase.

We use the information and experiences gained during the project to further develop the environmental impact analysis tool.

Key takeaways

The environmental impact assessment tool helps us to:

- Pilot asset allocation: for example, balance the portfolio in favour of low-carbon asset;
- Select between two similar projects based on their environmental impact;
- Communicate and discuss with external project partners (industry and investors) through specific and concrete requests;
- Suggest appropriate additional compensatory measures to improve the project's environmental impact;
- Secure long-term returns on our investments.

More information:
www.cdcinfrastructure.com

Colonial First State Global Asset Management

ESG training for direct infrastructure investment teams

Signatory type: Mainstream investment manager

Country: Australia and the UK

Established: 1988

AUM: US$ 159.3 billion

Type of infrastructure investment: Direct listed and unlisted infrastructure

Approximate percentage of AUM in infrastructure: 1.8 per cent

Introduction

Colonial First State Global Asset Management (known as First State Investments outside of Australia and New Zealand), is a global asset management business with experience across a wide range of asset classes and specialist industry sectors, including direct infrastructure investments (also known as CFSGAM Infrastructure). As one of Australia's first direct infrastructure investment managers, we have a long track record of implementing ESG considerations into our investment strategies, particularly as they relate to risk mitigation and value creation.

Our infrastructure investment team has consistently developed and refined its commitment to ESG and over time it has become a fundamental part of the investment process. However, one of the biggest challenges with mainstreaming ESG considerations is ensuring our investment teams have the necessary expertise to ensure all the relevant ESG issues are considered. To ensure that our infrastructure investment team was equipped to fully consider ESG risks and opportunities, we appointed Environmental Resources Management (ERM), one of the world's largest environmental services firms, to specifically develop a unique course which focuses on the ESG issues currently facing the infrastructure sector.

Mainstreaming ESG considerations

The course was commissioned because we view responsible investment as an important, mainstream issue that is worthy of detailed consideration by our infrastructure investment team. In order to best protect and enhance returns, we need to fully understand and manage the potential risks and opportunities. For our infrastructure investors, this is about intra-asset management of ESG issues together with whole-of-portfolio and investment strategy considerations.

Due to the size and nature of infrastructure assets, they are typically exposed to high levels of ESG risk and opportunity. Training in ESG considerations provides the skill and knowledge so that material ESG issues can be factored into investment decision making.

For CFSGAM Infrastructure, responsible investment means committing to consider ESG issues when determining the right price to pay for an asset, when managing the investment, during the ongoing valuation of asset, and in undertaking the investment strategy. Our training in ESG issues is done purely to protect and enhance investment returns.

Course structure

Our asset managers, or their representatives, typically sit on the boards of the infrastructure businesses in which we invest, so it is vital that they understand the most pertinent ESG issues in order to protect and enhance asset performance. In demonstrating our serious approach to ESG considerations, a significant investment was made to

Some members of the CFSGAM Infrastructure team (L-R): Mark Rogers, Associate Director Asset Management; Perry Clausen, Head of Infrastructure Investment Australia; Chris McArthur, Head of Asset Management Australia; Monika Mather, Investment Analyst; Rowan Element, Investment Analyst; Alan Wu, Associate Director Asset Management.

"ESG factors impact upon unlisted infrastructure value creation and investment risk management and therefore are an important consideration in our investment and asset management activities. Consideration of ESG is mainstream and the training course was developed as part of our efforts to continuously enhance our investment skills, processes and performance."

Perry Clausen (Head of Infrastructure)
Colonial First State Global Asset Management

develop a course that helped to ensure that a high level of knowledge and understanding was achieved for every member of our infrastructure investment team.

The training sought to build awareness of the ESG risks and opportunities in the asset management cycle. While the training focused on risk identification and mitigation, it also touched on value creation opportunities.

The course identified ESG issues and concepts through the use of a hypothetical case study. Participants were provided information on the case study and asked to discuss how they would respond to various ESG opportunities and risks. Responses were discussed and shared with the group, who were then presented with the best practice responses.

The course focused on the environmental and social standards, as included in our Infrastructure ESG Policy, including:

- the Equator Principles
- the International Finance Corporation (IFC) Performance Standards, and
- the Global Reporting Initiative

The infrastructure investment team were able to take learnings from the training to refine their approach to measuring and managing ESG issues in all aspects of the investment process. While ESG issues had always been considered by the infrastructure team, the training allowed for continuous improvement in the team's approach and updated them on new and emerging ESG issues and trends. The types of reporting our asset managers are now better equipped to review include: water and energy use; greenhouse emissions; environmental fines or breaches, staff turnover and engagement; injuries and safety reporting; community impacts from noise or pollution; levels of unionisation and relationships with trade unions; customer satisfaction and relationships with regulators.

Key takeaways

- ESG considerations are particularly relevant to infrastructure investments because of the long-term investment horizon and the significant nature of the asset;
- An asset manager who sits on an asset company board needs to have the necessary ESG skills to protect and enhance the value of the asset;
- ESG training of infrastructure investment teams is not something that can be bought off the shelf;
- Understanding ESG issues can help protect investment returns, add value to operational governance and identify investment opportunities.

More information:
www.cfsgam.com.au

APG Asset Management

Requiring ESG input into the investment decision-making process

Signatory type: Mainstream investment manager

Country: Netherlands

Established: 2008

AUM: US$ 368 billion

Type of infrastructure investment: Direct and indirect unlisted infrastructure

Approximate percentage of AUM in infrastructure: 2 per cent

Introduction

APGs infrastructure team invests on a global basis, primarily in unlisted equities in infrastructure businesses. We invest in all infrastructure sectors, including transport, energy, utilities, telecommunications, and social infrastructure such as hospitals and schools. ESG aspects form an integral part of our investment process. We exercise our shareholders rights and take account of environmental and social issues in our investment decisions. When considering an investment or when invested in a fund or an asset, we ensure that environmental, social and governance risks are understood. Where they are potentially material in terms of financial and/or reputation, such risks should be avoided or mitigated.

APGs approach to ESG in infrastructure

The role of ESG within infrastructure should be read in the context of APG's Responsible Investment Policy and how we implement the policy on behalf of our clients, for example Dutch pension funds. The policy has three main goals:

1. To contribute to risk-adjusted financial returns
2. To demonstrate social responsibility
3. To contribute to the integrity of financial markets

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Several infrastructure investments that help APG achieve its risk-return objectives at the same time make significant contributions to addressing major environmental and/or social challenges. This includes investments in renewable energy, water and wastewater services, environmental services, and schools and hospitals. Through our direct and indirect investments, we actively seek to source investment projects that provide this double benefit to our clients.

Integrating ESG considerations in investment decision-making

When considering an investment, we ask the external manager to complete a due diligence questionnaire. ESG related questions include:

- Whether the manager is a signatory to the PRI and if they support the UN Global Compact, the OECD Guidelines for Multinational Enterprises, the Universal Declaration on Human Rights and the ILO Core Labour Standards.
- If it has an ESG policy in place and if it publishes a report on its responsible investment activities.
- To describe how ESG factors are integrated into every stage in the investment process, from investment appraisal/due diligence, through ongoing management, to exit.
- To describe the key ESG risks associated with the investments proposed, and how these will be managed and mitigated, and what indicators or metrics will be used to monitor these risks.
- To indicate the ambition level with regard to offsetting or mitigating the negative environmental or social impact: partial, full or how far beyond the minimum required compliance levels?
- To define how the manager will report on the key ESG performance indicators to APG on a regular basis and ad hoc on any incidents.

“When considering an investment or when invested in a fund or an asset, we have developed an ESG due diligence questionnaire to ensure that environmental, social and governance risks are understood and factored in.”

Sander Paul van Tongeren (Senior Sustainability Specialist Global Real Estate and Infrastructure)
APG Asset Management

When negotiating agreements for funds we aim to agree on specific ESG criteria and restrictions. Where possible we will use our role on advisory boards and other positions to exercise positive influence over ESG performance in both our externally managed infrastructure funds and our co-investments. In the dialogue with companies we make clear what standards we expect in relation to sustainability and shareholder rights. We work together with other investors when we believe that such cooperation helps achieve our objectives. Where possible, for both fund and co-investments, we ask managers to list potential ESG risks and to draft related action plans how to address them. In the annual reports of the manager, a summary of the ESG risks and performance is enclosed, highlighting progress against previous periods.

Internal sign-off

Investment proposals are subject to review and approval by the APG infrastructure team, the Alternative Investment Committee (AIC), and if necessary, the Committee of Investment Proposal (CIP), which is chaired by our Chief Investment Officer. Before we make a commitment to a fund, the effectiveness of the proposed governance structure is assessed. This assessment focuses on the appropriate checks and balances that need to be in place to ensure a rigorous investment decision process. In general we would expect that unanimous approval by an investment committee that is independent from and/or superior to the deal team proposing a transaction is required. The role of the investment committee in such a structure is to assess the fit of the investment opportunity to the documented mandate and to challenge the investment case.

Key takeaways

- Our approach to responsible investment in infrastructure is based on APG’s Responsible Investment Policy;
- ESG issues are considered at all stages in the investment process through a detailed ESG due diligence questionnaire;
- Sign off from the ESG department is required before an investment can be made.

More information:
www.apg.nl

RARE Infrastructure Limited

Incorporating ESG in portfolio construction for global listed infrastructure

Signatory type: Specialised infrastructure manager

Country: Australia

Established: 2006

AUM: US$ 4.5 billion

Type of infrastructure investment: Direct listed infrastructure

Approximate percentage of AUM in infrastructure: 98 per cent

Introduction

RARE's investment team is focused on listed infrastructure, with eight research analysts and seven team members contributing to portfolio management. Our universe is comprised of over 300 stocks, in both developed and emerging markets. Four different investment strategies are drawn from this research database: value (global infrastructure); emerging markets; real assets (inflation protection); yield (high, sustainable dividends).

ESG factors are captured in the investment process:

- Cash flows capture ESG where it is possible to quantify impacts, for example carbon costs in the EU Emissions Trading Scheme, or social expenditure that is supported by a regulator. Asset level and corporate forecasts are compiled for each stock.
- Discount rates are adjusted for ESG risks, for example a history of detailed disclosure, or conflicts of interest between a controlling shareholder and minorities. Higher risks result in a higher cost of capital.
- Portfolio construction takes the valuation outputs from the research process (primarily a five year IRR). Based on the risk/return properties of each stock, weightings are allocated to provide desirable portfolio characteristics.

ESG inputs to portfolio construction

ESG is best integrated in investments by quantifying issues into cash flows and valuations. This leads to an assessment of sustainability at the same time as financial factors are considered. We adjust the discount rate for each company based on qualitative risks, including ESG factors as well as regulation, predictability and inflation protection.

In addition to internal research, RARE has engaged Sustainalytics to provide independent analysis. ESG ratings for each company are considered when adjusting discount rates and portfolios are compared to the global listed infrastructure universe (see page 25).

Synthesising ESG in portfolio construction

The research process provides portfolio managers with a forecast return for each stock, a discount rate (proxy for risk) as well as an understanding of the variability of returns. By considering downside and upside scenarios, each stock weight can be adjusted to match the level of conviction held by the team. A stock with high forecast returns and little risk, for example a regulated power line carrying renewable energy, deserves a large portfolio weight, while a stock with moderate returns and high risks, for instance a port operator with poor labour standards, is unlikely to be included.

RARE Infrastructure investment team, June 2011

> *"Embedding sustainability into our investment process and portfolios provides another source of alpha for our clients."*

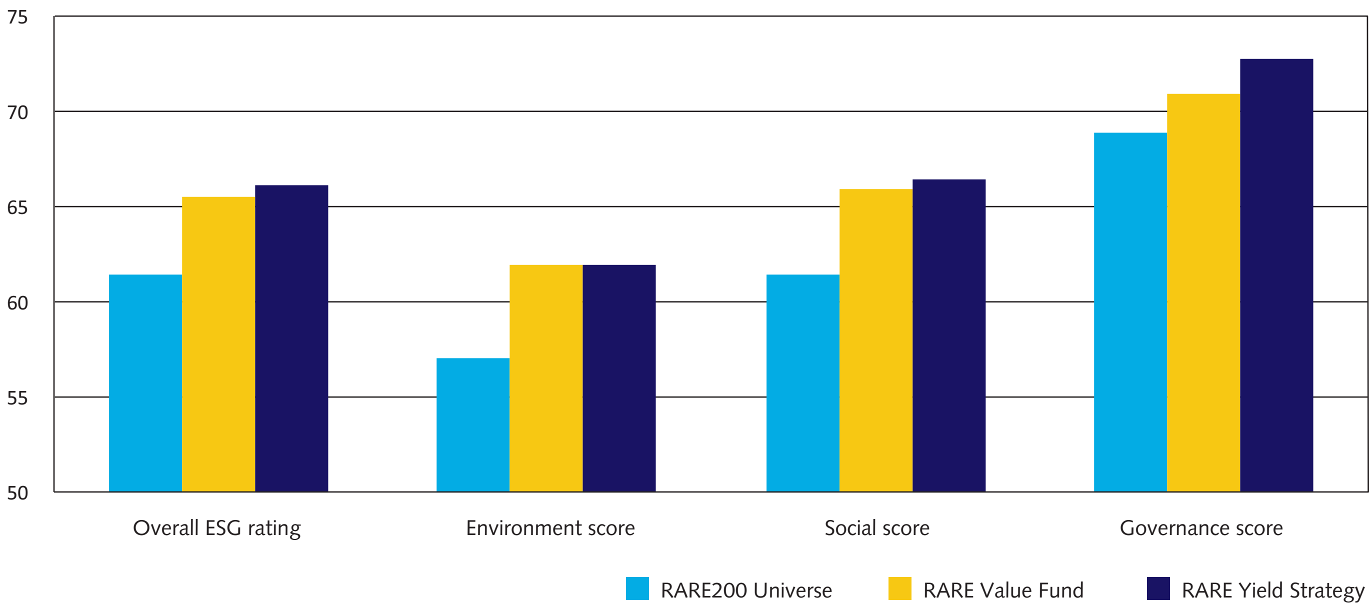
Richard Elmslie (Investment Director & Senior Portfolio Manager)
RARE Infrastructure Limited

Once a material factor has been identified in due diligence, it should be incorporated in the most relevant way possible. There should not be double counting of the same factor, for example both penalising cash flows and discount rates for the existence of an emissions trading scheme. A shared understanding of ESG risks and opportunities can only be achieved when analysts and portfolio managers communicate their assumptions and conclusions clearly to each other.

ESG factors not captured in risk and return forecasts can be caught by the portfolio construction overlay. This may be done by adjusting stock weights to reflect the interaction of risks between stocks, or by considering asymmetric risks for a particular stock, for example where internal research sees greater upside than downside. Intelligent screening can also be incorporated to avoid some larger risks, for example avoiding coal-fired generators in countries that are adopting a carbon price.

Outliers identified by Sustainalytics and the internal due diligence require particularly close attention from portfolio managers, since they signal exaggerated risks or opportunities.

Portfolio ESG ratings compared to Universe (out of 100)

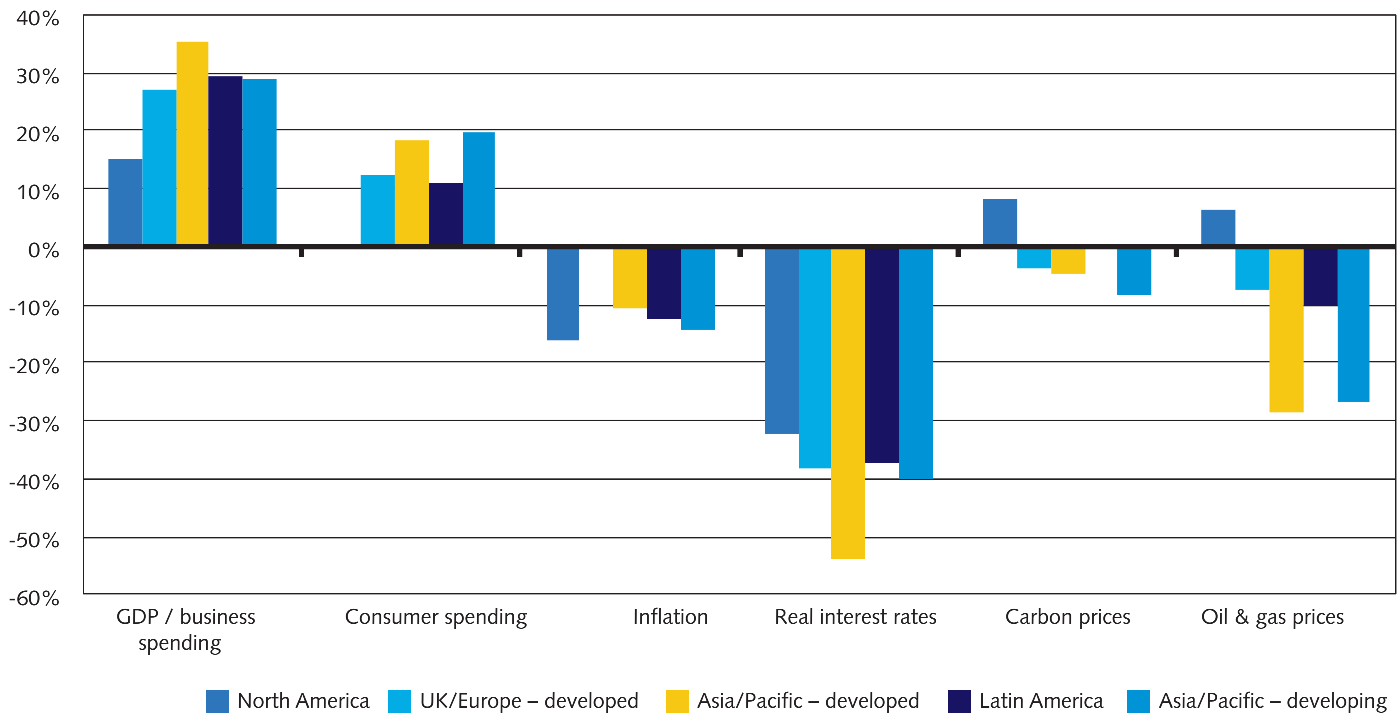


Portfolio characteristics

By estimating common risk factors across the investment universe, we have been able to work out where portfolios are exposed to these risks overall. These factors include macroeconomic sensitivity, financial risk and commodity prices.

Portfolio managers can then see how stock weights combine into portfolio exposures. The chart below shows the value portfolio being exposed to higher GDP, lower real interest rates and broadly neutral to carbon prices (and it further breaks out those exposures by region):

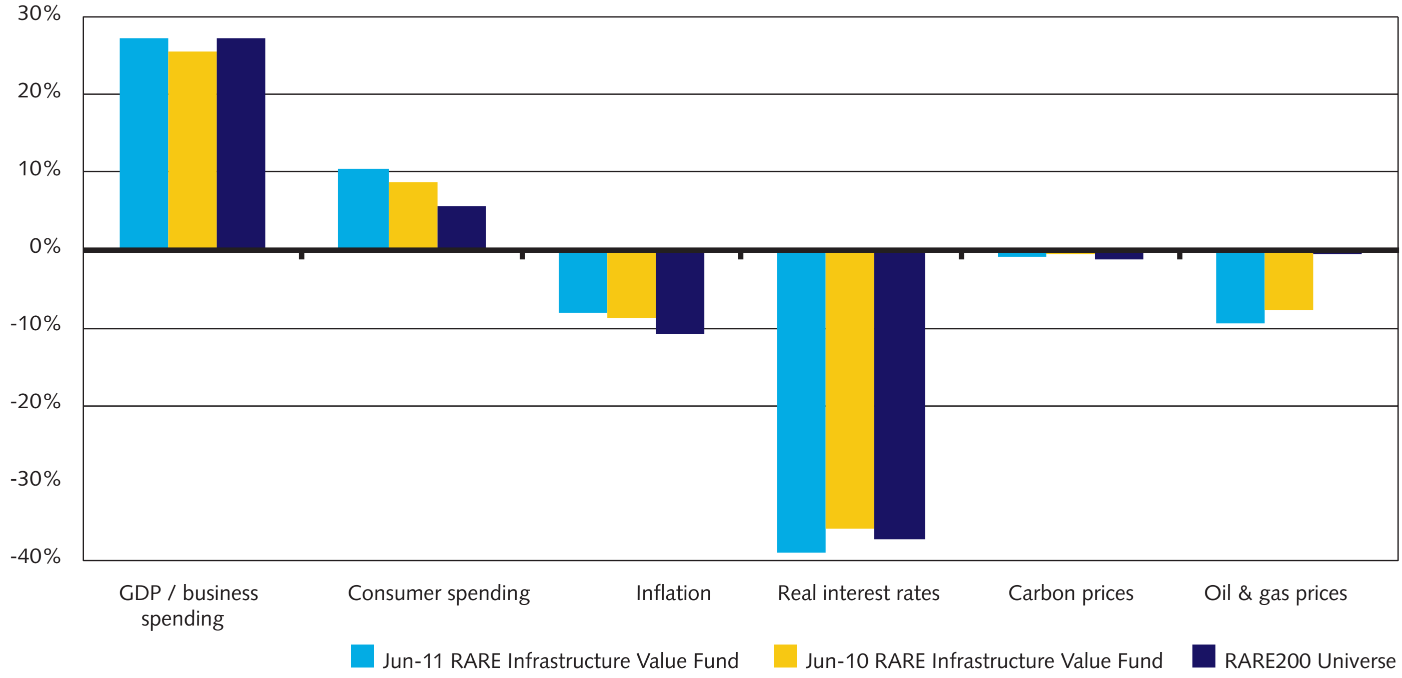
Weighted beta to a move in macro risk factors



Based on the regulatory and operating environment it may be preferable to get exposure to some sectors in a particular country. For instance, Brazil has abundant rainfall and supportive inflation protection for utilities, so hydropower is attractive in that country. We limit portfolio risks by placing guidelines on exposures. For example, an asset maturity target reduces downside from having too much exposure to greenfield projects, while a transport sector limit restricts the total weight in toll roads from being too low or too high.

As stock weights change in a portfolio the risk exposures will also change. The chart below demonstrates this and also compares portfolio exposures to the universe (see page 27).

Weighted beta to a move in macro risk factors



When the risk, return and exposure characteristics of each stock are stored in a research database, then portfolios can be tailored to client preferences. Our climate change strategy, for example, is optimised for low GDP sensitivity and positive exposure to carbon prices – putting into practice the **Mercer report on climate change scenarios** from February 2011.

Key takeaways

- ESG factors should be identified in the research due diligence process, and then incorporated at the most relevant stages of valuation analysis and portfolio construction;
- Portfolio managers need to understand what the material ESG factors are, how they are captured and probable variations from the baseline forecasts;
- Stock risk encompasses more than the cost of capital or share price volatility, it also includes upside and downside scenarios as well as asymmetry and probabilities;
- Portfolio construction starts with the outputs from internal and external research, along with many other inputs, and synthesises all of that information into stock weights;
- Building a common database and research platform allows different investor preferences to be applied across investment strategies;
- Interrogating this data shows the exposure to portfolio risks, as well as how these risk exposures have changed over time.

More information:
www.rareinfrastructure.com

About the Infrastructure Work Stream

The PRI Infrastructure Work Stream was established in 2011. The aim of the work stream is to promote and define responsible investment within infrastructure as an asset class. In practice this includes providing guidance and implementation support to direct and indirect infrastructure investors; thought leadership on responsible investment in infrastructure; and outreach and engagement to industry stakeholders. The Infrastructure Work Stream is governed by a steering committee composed of six signatories. For more information about the work stream and to gain access to resources, please visit the Infrastructure Work Stream page on the **PRI signatory extranet**

Share your experience of implementing the Principles

The PRI will continue to collect and publish case studies on how infrastructure signatories are implementing the Principles and plans to both update this publication and offer further examples with the 'PRI in Practice' section of its signatory extranet.

For more information, or if you would like to contribute a case study, please contact **info@unpri.org**

More implementation support documents

Implementation of the PRI by small and resource constrained investors

http://www.unpri.org/publications/2011-06_small_funds_case_study.pdf

Responsible investment in private equity: A guide for limited partners

http://www.unpri.org/files/lp_guide_2.pdf

Responsible investment in passive management strategies

http://www.unpri.org/files/Passive_case_studies.pdf

Responsible investment in private equity: Case studies

http://www.unpri.org/files/PE%20case%20studies%20FINAL.pdf

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