ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE (ESG) MADE SIMPLE

A GUIDE FOR INSTITUTIONAL INVESTORS



BNP PARIBAS

The bank for a changing world

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Foreword

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The concept of Environmental, Social and Corporate Governance (ESG) broadly captures how institutional investors approach responsible investing. But what ESG means exactly and how it fits into the investment process can be complex.

This guide aims to clarify and simplify the subject and to sketch out a foundation on which institutional investors might be able to build a strong ESG investment structure. It aims to offer a practical approach to integrating ESG into the investment decision-making process, not least by outlining the building blocks of ESG analytics such as data and scoring.

As one of the world's leading financial institutions, BNP Paribas plays a key role in supporting responsible investment and sustainable investment practices. The Bank is a recognised leader in the green bonds market and in structuring products that aid responsible investment. During 2015 we led managed green and climate bonds for a wide range of issuers, including local authorities, corporates and supranationals. And we were a lead-manager in the first green bond from a commercial state-owned bank in India.

BNP Paribas Asset Management is also one of the first asset managers in Europe to adopt a responsible investment policy and to apply ESG requirements to all its investments. This has been recognised by numerous European awards in the Socially Responsible Investment (SRI) arena, not least 10 Novethic SRI labels, 5 Novethic environment labels, and 6 Luxflag environment labels.

As a custodian we recognise the role we can play in providing the risk and performance analytics and reporting that will help you adopt and integrate ESG policies and demonstrate their value to your organisation – be it your trustee board or your investment committee.



Philippe Ricard Head of Asset and Fund Services, BNP Paribas Securities Services



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Introduction /

Introduction

Environmental, Social and Corporate Governance (ESG) analysis provides investors with a additional way of viewing investment risk. ESG looks into the current business practices of a company, and uses this view to measure risk based on the company's environmental stewardship, its corporate governance, its support of social practices, and its economic performance.

Many institutional investors already integrate ESG factors into their investment decision-making framework because they believe that sustainability factors materially influence the risk-return profile of their investments. For many institutional investors the fiduciary aspect of ESG is becoming clearer and more of a focus as they come under greater pressure from governments to take greater ownership and responsibility.

2016 marks 10 years since the United Nations-supported Principles for Responsible Investing (PRI) were launched. The initiative sets out six guiding principles for how investors should manage their assets, and is gaining momentum and signatories all the time. As at June 2016, the assets signed up to the PRI total nearly US\$60 trillion and almost 1,500 signatories worldwide – 300 of which are institutional investors.

ESG as an approach is flexible. It can be applied:

- To any asset class including more illiquid asset classes (such as private equity and private real estate) and alternatives (such as derivatives); and
- At any number of levels of analysis eg by investment fund, by region, by sector or by company.

The key challenge is in obtaining accurate and consistent data ie whether the investor is able to obtain visibility and transparency on the company in which it is investing, regardless of the asset class. Another important focus is ensuring effective dialogue with the investment industry - not least asset managers and consultants.

This Made Simple Guide looks at the principles of ESG investing and how these can be successfully adopted.

Section 1	
	What do we mean by taking an ESG approach to investing?

What is responsible investment?

The PRI defines responsible investment as "an approach to investment that explicitly acknowledges the relevance to the investor of **environmental**, **social and governance factors**, and of the long-term health and stability of the market as a whole¹".

Responsible Investment (RI) should not be confused with Socially Responsible Investment (SRI). SRI combines investment returns with ethical investing. In this paper, we view RI as **driven by financial rather than ethical or moral implications** and its main purpose to decrease investor risk and improve risk-adjusted returns.

ESG is a term that is used to describe a group of risks – environmental, social and governance – that are explicitly acknowledged and integrated into the investment research and decision-making process.

ESG integration is applicable whether managing assets in-house or using third-party asset managers. For those institutional investors who use third-party asset managers, this implies factoring in ESG from the appointment process (Requests for Proposals that ask questions about ESG either tailored to a specific asset class and / or broader questions such as 'Are you a PRI signatory?') through to awarding mandates and to ongoing monitoring of the asset manager. We go into this process in further detail in Section 4.

"ESG is a term that is used to describe a group of risks."

¹ What is Responsible Investment? PRI

Section 2	ESG – why is it gaining
	traction?

In this section, we consider the imperative behind ESG and why this approach is gaining popularity.

2.1 ESG and fiduciary duty

As highlighted by the PRI and the European Commission "In many jurisdictions, fiduciary duty is widely considered as imposing obligations on trustees or other fiduciaries to maximise investment returns". However as they go on to note, this has often led to a focus on short-term returns and the neglect of ESG risks.

This landscape is now changing driven by various factors including:

- A general acceptance that ESG can enrich the overall risk measurement and management process (is complementary to traditional types of investment risk analysis)
- The financial impact of ESG issues on long-term investment performance has become clearer; and
- The influence of a new generation the millennials. These investors want to know their money is neither excessively contributing to climate change, nor being used to fill the coffers of corrupt governments or preventing the education of children. At the very least, they will want to know that those with a fiduciary duty to look after their money have taken ESG factors into account and are making investments with their eyes fully open.

2.2 ESG and the impact on long-term investment returns

There is an increasing body of evidence to suggest that companies with sustainable business models deliver improved financial returns, and that investors taking sustainability into account can deliver improved risk-adjusted performance.

For example, one report, published in 2015¹, investigating over 200 academic studies and sources on sustainability, found a correlation between diligent sustainability business practices and economic performance.

2.3 Relevance of ESG across asset classes

Historically responsible investment activity has focused on public equities with attention given to ownership rights that are attached to shares. However, all asset classes are impacted by ESG factors. They also all need to be considered at different parts of the investment cycle. Private equity, for example, is less transparent and more illiquid than public equities and therefore requires due diligence at an earlier stage in the investment process.

Public equities: poor management of ESG risks can impact the long-term performance of the investee company. Institutional investors using third party asset managers should engage their managers to discuss how they incorporate ESG factors into their investment management process.

¹ From the Stockholder to the Stakeholder. How Sustainability can drive financial outperformance. Arabesque Partners and the University of Oxford

Corporate bonds: many investors hold long duration bonds to offset liabilities. Impairment in the equity value of the investee company risks driving down the mark-to-market valuation of the bond. Company default is a worst case scenario.

Sovereign bonds: these carry political, environmental, social and governance risks at the country level.

For **fixed income**, the PRI's *Fixed Income Investor Guide* is a useful document in understanding ESG risks for both corporate and sovereign bonds.

Real estate: this asset class can have major environmental implications (CO₂ emissions and natural resources) and this asset class is therefore at the centre of sustainability issues. For example energy-efficient buildings could see valuations enhanced

Infrastructure: similar to real estate this asset class can have major environmental implications. For example infrastructure projects with commercial dependency on businesses exposed to ESG issues (such as fossil fuels) could see valuations impacted

For **real estate and infrastructure**, the Global Real Estate Sustainability Benchmark (GRESB) is a useful reference site when considering the ESG performance of these asset classes. See www. gresb.com/

Private equity: typically these investments have long-term investment horizons. Allocations to this equity asset class as a percentage of overall portfolios are growing. Therefore, the impact to the portfolio (as is the case with infrastructure and real estate) can be significant and also carries reputational risk for institutional investors. Private equity managers (General Partners) should have the skills and policies in place to analyse and mitigate ESG risks.

For **private equity**, one useful reference is the British Private Equity and Venture Capital Association's (BVCA) Responsible Investment guide.

2.4 COP21 and climate change

In December 2015, at the COP21 Paris climate conference, 196 nations agreed to work towards a low-carbon, climate-resilient future. The key actions arising from the Paris Agreement are to:

- Keep any increase in global temperatures below 2°C and pursue efforts to limit to 1.5°C
- Define post-2020 climate actions and evaluate progress every five years
- Finance climate change adaptation measures in vulnerable countries

France has been the first country to introduce legislation in support of the Paris Agreement. A new French law aims to support 'energy transition towards green growth'. Investors with assets in France now face legal requirements to report on their progress with respect to ESG integration in general and climate-related risk management specifically.

The outcomes of conferences such as COP21 are clear. Regulation specifically addressing climate change will seek to reduce carbon emissions into the atmosphere. As this movement continues to grow the price of carbon offsets may rise and proven reserves of fossil fuels may become 'stranded assets'. These costs need to be factored into future risk models and is driving innovative analyses (see Section 7)

Section 3	
	ESG Terminology and Frameworks

It is useful at this point to introduce some key terminology and frameworks in support of ESG.

3.1 ESG terminology

ESG includes the three pillars - E, S and G. These pillars form a lens through which to examine a company's operations, its manufacturing and services processes, and its interaction with the local, national or regional communities in which it operates.

Within these pillars are **ESG Factors**. A non-exhaustive list is outlined in the diagram below.



ESG risk assessments require metrics that capture and describe ESG factors objectively and quantitatively and apply this analysis across asset classes and investment vehicles.

Examples of metrics could be:

Carbon emissions

• Total CO₂ and CO₂ equivalents emission in tonnes divided by net sales or revenue.

Product responsibility

Has the company announced a mass recall of products or has it completely withdrawn a product owing to defects or safety issues?

Board structure

Does the CEO simultaneously chair the board?

An institutional investor will determine which ESG factors are important to its investments (we discuss this further in Section 5).

3.2 The United Nations-supported Principles for Responsible Investing

The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact. The six Principles reflect the belief that ESG issues can affect the performance of investments and therefore must be given appropriate consideration in fulfilment of fiduciary duties. The Principles provide a voluntary framework by which all investors can incorporate ESG issues into their decision-making and ownership practices. The Principles are listed below along with an example action that an investor can take to implement each one.



Signatories to the PRI include asset owners, asset managers and professional service partners.

The following are used to evaluate companies.

3.3 The United Nations Global Compact

The UN Global Compact is a strategic initiative for businesses that are committed to aligning their operations and strategies with 10 universally-accepted principles in the areas of human rights, labour, environment and anti-corruption. With approximately 8,000 corporate signatories and 4,000 non-business signatories, participation to the Global Compact initiative has become a critical indicator of a company's ability to identify and manage ESG issues that are material to investors.

3.4 National stewardship and corporate governance codes

Many countries will have codes aiming to enhance the quality of engagement between investors and companies in order to:

- Help improve long-term risk-adjusted returns to shareholders
- Establish standards of good practice in relation to board leadership and effectiveness, remuneration, accountability and relations with shareholders.

Section 4	
	Integrating ESG into the investment decision-making process

4.1 Investment beliefs

Many ESG practitioners approach ESG by first setting out their investment beliefs. In doing so, an institutional investor will be influenced by its organisational culture, the policies and practices of its sponsor (in the case of a pension fund), and additional key elements such as whether it is a signatory to the PRI. As such, there is no one-size-fits-all set of beliefs.

Whilst all ESG factors are relevant, investment beliefs will determine which factors are most important to the investor. Investment beliefs will also drive conversations with asset managers, consultants, and in some cases with the investee company. Below we show the example of the UK's Environment Agency Pension Fund.

RESPONSIBLE INVESTMENT BELIEFS OF THE ENVIRONMENT AGENCY PENSION FUND

- Apply long-term thinking to deliver long-term sustainable returns
- Seek sustainable returns from well-governed and sustainable assets
- Apply a robust approach to effective stewardship
- Responsible investment is core in our skills, knowledge and advice
- Seek to innovate, demonstrate and promote RI leadership and ESG best practice
- Apply evidence-based decision making in the implementation of RI
- Achieve improvements in ESG through effective partnerships that have robust oversight
- Share ideas and best practice to achieve wider and more valuable RI and ESG outcomes
- Be transparent and accountable in all we do and in those in which we invest

The California Public Employees' Retirement System (CalPERS) has 10 investment beliefs in total. Investment belief Number 4 in particular highlights the importance of ESG to CalPERS.

RESPONSIBLE INVESTMENT BELIEF NUMBER 4 - CALPERS

- Long-term value creation requires effective management of three forms of capital: financial, physical and human
 - Governance is the primary tool to align interests between CalPERS and managers of its capital, including investee companies and external managers
 - Strong governance, along with effective management of environmental and human capital factors, increases the likelihood that companies will perform over the long-term and manage risk effectively
 - CalPERS may engage investee companies and external managers on their governance and sustainability issues, including:
 - Governance practices, including but not limited to alignment of interests
 - Risk management practices
 - Human capital practices, including but not limited to fair labor practices, health and safety, responsible contracting and diversity
 - Environmental practices, including but not limited to climate change and natural resource availability

4.2 The ESG policy

Investment beliefs are a key part of an ESG policy. The policy lays out how - in practical terms - the investor will integrate ESG into the investment process. Pension funds specifically may wish to consider the policies and practices of their sponsor and how aligned they need to be with these.

An ESG policy could include:

- Those ESG factors which are important to the institutional investor eg board structure, supply chain management
- How the institutional investor will work with asset managers
- How the institutional investor will collaborate with others
- Which ESG factor has the biggest potential impact on a particular investment eg countries with weaker social welfare practices may require a greater focus on the 'S' than the 'G'.
- Key Performance Indicators (KPIs) that the institutional investor might use to measure ESG performance eg carbon emissions or governance scores

4.3 The investment process

INVESTMENT OBJECTIVES	IMPLEMENTATION (2)	MONITORING 3
 Asset Liability Management (ALM) Asset Allocations Statement of Investment Principles (SIP) 	 Mandate design Manager selection Risk appetite Portfolio construction Benchmarks Stress testing 	 ESG analytics Attribution Exposure analysis Risk analysis Performance Manager reviews

INVESTMENT BELIEFS AND ESG POLICY

GUIDING PRINCIPLES - Investment beliefs and the ESG policy

Investment beliefs and the ESG policy should guide the investment process as shown in the diagram above. As such, they will influence investment objectives, manager selection and the ongoing dialogue between the investor and its asset managers.

STEP 1 Investment objectives

The first stage is for institutional investors to set their long-term investment objectives. This takes into account the fund's liabilities and current funding position, alongside longevity risk and liquidity requirements.

The investment policy of the fund is then defined in the Statement of Investment Principles (SIP) or similar investment strategy statement. The investment beliefs or responsible investment principles are embodied within the SIP, which sets out how the fund will be governed and how the assets are to be managed. The SIP also specifies the strategic asset allocation of the fund or portfolio.

STEP 2 Implementation

Manager selection

It is critical at this stage for the institutional investor to articulate its ESG expectations of a potential asset manager. This can be achieved using appropriate questions about responsible investing. An investor will likely want to discuss ESG expectations through the entire asset manager selection process. The investor may also wish to put questions to the portfolio manager (as opposed to putting them solely to the ESG analyst). Managers should adhere to the investment beliefs of their client as they apply to the implementation of the mandate. Key ESG requirements should be documented within the Investment Management Agreement (IMA).

One invaluable reference in creating your questions is the UN PRI's Aligning Expectations – Guidance for Asset Owners on Incorporating ESG Factors into Manager Selection, Appointment and Monitoring.

MANAGER SELECTION QUESTIONS

There are numerous ESG-related questions that you might use in the manager selection process. Key discussion areas will include:

- RI policy and governance eg what motivates you (the asset manager) to look at ESG issues (rationale behind responsible investing)?
- ESG resources eg How are your portfolio managers incentivised to incorporate ESG factors?
- ESG integration eg How are ESG factors incorporated into the investment analysis and decision-making processes?
- Voting and engagement eg Do you have examples of engagement / where you have engaged a company and what you have achieved?
- Monitoring eg How often and through which communication channels (meetings, written reports etc) are RI activities reported to the investor?

In the selection of asset managers, the following are areas where you may wish to check your understanding of how they integrate ESG as part of their portfolio construction:

- Analysis of investments.
- Benchmark selection eg using a standard or ESG 'tilted' benchmark.
- Asset allocation optimisation (does the asset manager consider ESG factors in how they positively or negatively weight the portfolio?).
- Stress testing on ESG issues eg real estate new energy efficiency requirements and the impact these might have.

STEP 3 Monitoring

This final stage involves monitoring the progress of investments to ensure that the institutional investor's risk and return objectives are being met and that the stated investment philosophy – the investment beliefs – are being met.

There are various sources of ESG reporting. In the first instance institutional investors should be engaging asset managers to provide more detailed ESG reports. Investment consultants also provide investment reports and manager performance reviews. Investors can also decide to invest internally to develop their own reporting.

There has been growing demand for independent third party performance and risk analytics, which can now include ESG metrics. Global custodians such as BNP Paribas Securities Services are able to provide this independent analysis as part of their risk and performance analytics.

Section 5	
	ESG – Data and Scoring

5.1 The importance of data

ESG data provides institutional investors with additional information to review risk and reward. Many of the data points collected for ESG risk assessments are not conventional risk measures and put companies under the microscope like never before, so it is important that the data used is accurate, is sourced independently of the company, and is analysed in the context of the financial risks that it might represent. This additional information will generate questions for the conversation with the asset manager.

Whether analysing a particular company, assessing a portfolio or looking at the entire assets of the fund, all require a new approach to gathering and normalising a broader data set.

A number of issues need to be considered:

- What is 'ESG data'?
- What asset coverage is available?
- Who can provide it?
- How up-to-date are the data?
- How can the data inform investment risk?

Let us now look at best practices for collecting, analysing, and using ESG data and how this can augment the stewardship activities of the institutional investor.

5.2 Creating ESG scores

The starting point for ESG analytics is to score each investee company.

So what is an ESG score?

The **ESG score** is an expression of all of the **Environmental**, **Social**, **and Governance factors** combined with some economic factors. Individual company scores can then be aggregated to calculate the portfolio score, the sector score, the regional score or in fact the score for any characteristic data point, such as duration.

The ESG score for a company is based on three categories; E for environmental, S for Social and G for governance. Each category has numerous underlying factors that require data points on the company. Data vendors are able to acquire and validate core underlying ESG company data. The following table will provide some examples of those research questions used to collect data points. Note that their importance from a financial risk perspective will vary by sector and by country.

- Is the company seeking to reduce its emissions in a measurable way?
- Does the company measure its water/energy waste? Does it have targets to reduce this?

鴙) SOCIAL

- Does the company perform due diligence to ensure that human rights are respected and protected?
- The percentage of political donations made compared to total company revenue

🚨) GOVERNANCE

- Are the CEO and Chairman offices held by the same individual?
- Do the common equity shares of the company have equal voting rights on a per share basis?

Importantly, ESG scores need to be based on objective, consistent, and compatible data points. Information should be collected and verified independent of the company to ensure the integrity and validity of the data. Therefore, in gathering ESG data, information should not always come directly from the company.

Answers are aggregated to generate a company ESG score. The example below shows A+ as the highest and D- as the lowest. However, a scale such as 1-10 could also be used (the principles remain the same).



Aggregated ESG scores provide for a convenient starting point for ESG integration. The ESG score can then be further analysed by its E, S and G elements. For example a company with a total ESG score of B+ may have very high individual scores in both the Social and Governance categories, but a low Environmental score. In another example, two companies may have a similar Environmental score, but while one company has only limited disclosure and no significant controversies, the other has more extensive disclosure but also significant controversy exposure. This gives greater insight into the ESG risks associated with underlying investments.

5.3 ESG data provision

ESG data vendors are developing new processes and databases. This is an important step in obtaining robust data so that ESG reporting and analyses can be integrated into the investment process in a similar vein to other more established risk measures such as Value at Risk (VaR) or credit ratings.

Asset managers conduct their own research and company analyses and therefore have been incorporating elements of ESG research into their investment and stock selection process for many years. However, until recently, ESG reporting has not been separately requested by investors as part of the manager selection process nor embodied within the Investment Management Agreement (IMA).

Asset managers should provide ESG reporting for their specific fund or mandate. However, this still leaves investors with the challenge of data aggregation across all portfolios. Custodians are already data consolidators for institutional investors and provide a range of valuation services and risk reporting. They are therefore well placed to extend their services to incorporate ESG factors into a broader investment and risk reporting framework. Providing a view across all investments from all asset managers allows investors to truly understand their ESG risk profile.

KEY QUESTIONS TO ASK YOUR CUSTODIAN

- Which ESG data at the individual company level do you have access to?
- Can you build ESG portfolio-level scores based on individual asset class scores?
- Can you provide reporting on 'E, S & G' factors separately?
- Do you have access to and the ability to score both standard and ESG-specific benchmarks?
- Can you provide asset-level ESG scoring for pooled funds? [Do you have look-through to the underlying investments?]
- Can you provide ESG reporting at both the portfolio level and also across all portfolios / investments at the fund level?

5.4 Data aggregation and analysis

Using asset-level scoring, it is then possible to aggregate data to allow:

- Company analysis
- Portfolio analysis (to facilitate benchmark comparisons)
- Analysis across funds (to understand risk by sector or by region).



5.5 Company analysis

Institutional investors may want to see overall exposure to any one company, eg when analysing controversies.

5.6 Portfolio analysis and benchmarking

By applying ESG data to existing standard benchmarks, an institutional investor can measure its portfolios against the same standard market benchmarks currently used to measure performance. For example, if the investor measures equity performance against the MSCI World, it can continue to use this same benchmark, but this time containing an ESG data set, to facilitate a comparison of the portfolio's ESG score with that of the MSCI World. Conversely, an investor could choose customised ESG indices for a more effective comparison. For example, if an investor has excluded fossil fuel stocks from its portfolio, it may wish to measure ESG performance against an index that has been optimised to exclude fossil fuel stocks.

5.7 Aggregated analysis across all funds

Assets can also be aggregated across funds. These aggregated scores can then be used to review specific sectors or regions either at the individual portfolio or entire fund level. Some sustainable strategies at the individual manager level can then be considered at a global level. For example if the goal is to reduce the carbon footprint of the overall portfolio, the investor can identify sectors that generally have higher carbon footprints. These reporting tools can provide an insight to the overall health of the portfolio and help investors meet their fiduciary responsibilities.

5.8 ESG Risk Analytics

In support of the data challenge, BNP Paribas Securities Services has created ESG Risk Analytics - a new reporting solution that brings ESG risk, economic performance and market risk into a single view. ESG Risk Analytics helps the institutional investor to:

- Integrate ESG risks into investment-decision making processes (whether assets are managed in-house or externally)
- Assess the extent and nature of company controversies
- Benchmark and measure a portfolio against chosen ESG criteria
- Communicate ESG risks to key stakeholders
- Comply with international standards (such as the PRI) and stewardship codes

Data is independent, objective and publicly-sourced.





Section 6	
	ESG Checklist

6.1 Checklist Am I ESG-ready?

The checklist below asks some key questions in support of the institutional investor's ESG journey.



Is my rationale for pursuing Responsible Investing clearly understood by my board and investment committee?



Have we drawn up and agreed our Investment Beliefs and our ESG policy / strategy? Do our investment beliefs capture our view of the risks relating to ESG?



Which ESG factors are material to a specific investment strategy / sector / theme that we wish to mandate and / or pursue in-house, and will create value over the long term?



Have I asked my asset manager(s) about the type of ESG reporting they can provide?



Do I have the information that I need to evaluate my asset manager? Is there an ESG rating for my asset manager(s) (for example by the PRI)?



How will I aggregate data coming from multiple asset managers?



"If you assume that there is an instinct for freedom, [that] there are opportunities to change things, there's a chance you may contribute to making a better world"

Noam Chomsky

What will a 2°C rise in the Earth's temperature mean for the investments of the institutional investor? How about a 3°C or 4°C rise?

Climate change has the potential to impact investments and therefore should be considered as a serious financial risk. Regulators such as the Financial Stability Board are particularly concerned about the transition risks associated with climate change. While there is a strong consensus that the transition to a low-carbon economy should happen, the transition needs to be managed carefully.

Carbon and climate change have emerged as a key ESG issue for investors. Increasingly fiduciary duty and in some cases regulations require that investors analyse and understand their risk exposure to a carbon-constrained future.

As a result, new tools are being developed with a view to better understanding and solving the ESG risk of climate change to financial investments.

7.1 Carbon pricing

The 'Paris Agreement' from the Conference of Parties (COP) 21 produced a global climate change treaty under international law. The agreement states that global greenhouse gas emissions should peak 'as soon as possible' to keep the global temperature increase to 1.5°C - 2°C above pre-industrial levels (the temperature recorded for 2015 reached a 0.9°C increase).

While only some provisions of the Paris Agreement are legally binding, the political will to mitigate greenhouse gas emissions appears strong. National policy agendas and the Intended Nationally Determined Contributions (INDCs), particularly around energy and carbon, are a signal of that commitment. They also provide a yardstick that allows investors to assess whether regulatory change might pose performance risks for their equity portfolios.

BNP Paribas, working with Avalerion Capital, is developing a new approach to climate change stress-testing. Moving beyond assessing absolute carbon emissions, they are considering three policy factors and their impact on profit before tax (PBT). These three factors are:

- Carbon pricing;
- Energy efficiency policies; and
- Energy subsidy policies.

At the heart of this stress-testing work are three fundamental questions:

- Does climate change policy pose material risks to the expected future performance of equity portfolios? And if so, which of the above three factors is most significant?
- At what tracking error and performance 'costs' can equity portfolios be re-balanced, without any material loss of performance, to mitigate these risks?
- How can institutional investors build 'better' betas to mitigate losses driven by climate change risks?

Initial results show that carbon price poses a material performance risk in 4 high-emission sectors

- Utilities;
- Basic materials;
- Energy; and
- Industrials.

Analysis further shows that stress-testing and rebalancing portfolios on the basis of the expected profit-and-loss impact due to carbon prices, yields different results to 'de-carbonising' portfolios using absolute emissions. Managing carbon risk by using absolute CO₂ emissions by companies does not buffer a portfolio against financial impacts from future carbon price increases. Therefore measuring and managing carbon footprint alone is not enough to mitigate investment risk. Rather the investor needs to also understand the risk posed by carbon pricing.

Finally, analysis thus far also shows that carbon factor investing portfolios can be created without 'sacrificing' annualised returns (the 'costs' are a tracking error of ~ 2%).

Conclusions /

Institutional investors aim to be responsible investors. To effectively integrate ESG into their decision-making, they should enlist the support of their asset managers, custodian and consultants.

ESG is in line with fiduciary duties of institutional investors. Early engagement will ensure alignment between the investment beliefs and the activities of their asset managers.

ESG is not at the expense of performance. It is an additional lens to effectively manage and measure portfolio risk, which should lead to better investment outcomes.

Studies demonstrate that assets will be impacted by climate change. As a result, strategies for testing and immunising the portfolio from these impacts will become increasingly important.

Regulators will not lie idle. ESG driven regulation will continue and will drive change which in turn will impact corporate and investment performance.

Service providers such as BNP Paribas Securities Services are able to provide robust and reliable ESG reporting and future innovations point to the development of dynamic tools to support ESG integration and the use of data and scoring.

"Regulators will not lie idle"

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