ESG INTEGRATION AT BNP PARIBAS ASSET MANAGEMENT

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BNP PARIBAS
ASSET MANAGEMENT

The asset manager for a changing world

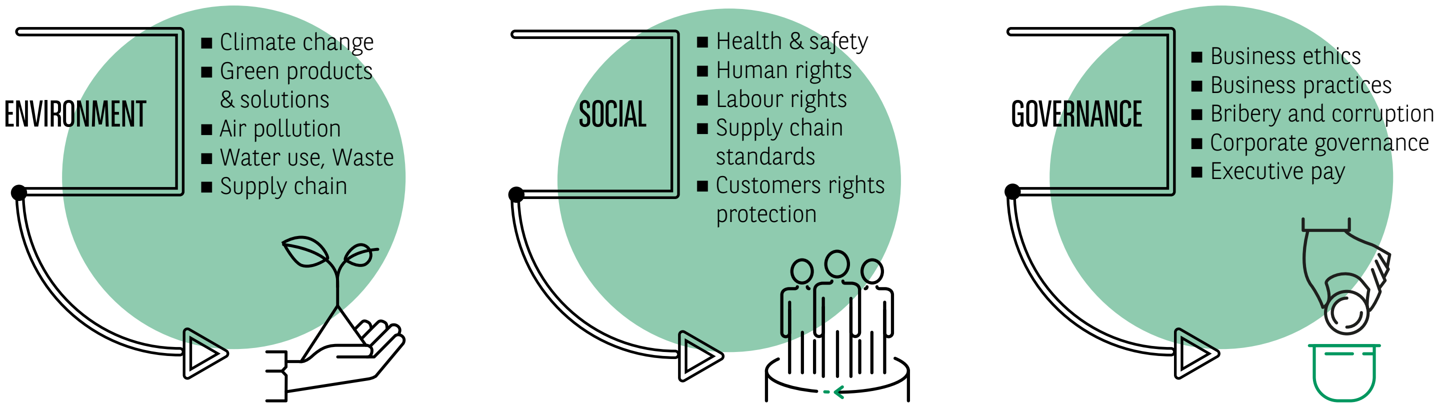
WHAT IS ESG AND HOW DID IT DEVELOP?

ESG is an investment approach which integrates environmental, social and governance (ESG) factors into investment decisions to monitor underlying risks and generate sustainable, long-term returns. Just as investors consider economic, financial and strategic criteria to assess a security's value, ESG provides an additional set of criteria to evaluate the holding's long-term sustainability.

The origins of ESG investing began based on the moral and ethical views held by some investors that it was wrong to invest in certain industries (weapons, tobacco) or countries (South Africa during Apartheid). This resulted in exclusionary approaches or restrictions. Through most of the twentieth century responsible investing was considered a niche investment category as it placed moral or ethical considerations over financial criteria. As environmental concerns began to grow in the last decades of the twentieth century, ESG began to gain attention. Also, social concerns grew as there were an increasing number of child labour and human rights abuses across different industries. Lastly, governance issues also developed in the last decades of the twentieth century, after there were large stocks awards to company CEOs often with no shareholder vote. In the early 2000s, governance issues again came to the forefront with the bankruptcies of Enron and Worldcom.

In 2006, the Principles for Responsible Investment were adopted under the United Nations leadership and this is considered the beginning of ESG investing. The signatories of these principles, which have grown from 100 to over 1,750 today, have agreed to incorporate designated ESG factors when making investment decisions. More and more investors are considering it necessary to implement ESG criteria in their investment process in order to manage risks.

FIGURE 1 - EXAMPLE OF STANDARD ESG INDICATORS



Source: BNP Paribas Asset Management

COMPARING ESG TO OTHER APPROACHES

The major differences between ESG investing and socially responsible investing (SRI) are their primary objectives and the approach to how companies are included or excluded from investment portfolios. The primary objective of the ESG approach is to generate long-term sustainable returns whereas SRI funds balance return potential with a defined social or environmental goal or goals. With ESG, the investor does not systematically look to exclude or include specific securities. Instead, a fund manager will incorporate ESG evaluation into their research, thus enriching their knowledge of the company or government entity and giving them more tools to assess the level of risk they want to take regarding specific investments. ESG can also protect the portfolio from reputational and operational risk, providing some understanding of the risk inherent in the holdings you're investing in. ESG can be applied to any management style in that you can add the ESG data to the research, and provide more insightful forecasts of the risk and soundness of the securities you are investing in.

FIGURE 2 - ESG VS SRI VS IMPACT INVESTING

POSITIVE INVESTMENT RETURNS

MEASURABLE IMPACT ON SOCIETY

	Primary objective	Implemented in mainstream portfolios	Uses positive screens to select securities	Uses negative screens to exclude securities	Uses ESG criteria as additional set of factors to evaluate security	Responds to specific social or environmental challenges thru thematic, best-in-class or transversal strategy
ESG	Long-term sustainable returns	●	○	◐	●	○
SRI	Balances return potential with defined social or environmental goal	○	●	●	●	◐
Impact Investing	Measurable impact investment has on society	○	●	○	●	●

Sources: PRI; The Forum for Sustainable and Responsible Investment; and BNP Paribas Asset Management.

● YES ◐ MAY, BUT NOT REQUIRED ○ NO

SRI is based largely on systematically choosing companies with the best financial and ESG credentials, excluding certain activities perceived as socially or environmentally negative, such as coal, arms manufacturing, tobacco and gambling to name a few. SRI investing also responds to specific challenges, such as climate change, renewable energy and clean water through thematic investment funds.

Impact investing is investment in a security with the objective of generating a measurable environmental and/or social impact together with a financial return. This approach is based on the belief that social and environmental impact is as important as financial impact.

Impact investing focuses on actively seeking out companies making a positive impact in terms of their environmental or social footprint (e.g., climate change fund investing in green building technologies). You start by identifying social and environmental objectives, then you identify the best companies doing those activities and achieving those objectives, and then incorporate them into your portfolio to achieve a financial return.

IMPLEMENTING ESG – THE GROWTH, BENEFITS AND CHALLENGES

In 2006, the United Nations-supported Principles for Responsible Investment (PRI) were launched and since the 2008 financial crisis, we have seen a rise in ESG integration. Various government and industry organisations are the main drivers behind this increase. The PRI requires its signatories to put into practice the six Principles for Responsible Investment. In 2015, it began a three-year program working together with investors, investment managers and policy makers to promote awareness of fiduciary responsibility and sustainable investing.[1] Furthermore, the European Pensions Directive, which came into force in January 2017, and must be incorporated into national legislation by January 2019, requires European Union member states to allow European occupational pension schemes to take into account the potential long-term impact of investment decisions on environmental, social and governance factors. Also, these pension schemes will need to state how their investment policy takes ESG factors into account and the trustees' investment decision making process should demonstrate ESG factors have been taken into consideration.[2]

In addition to positive environmental and societal benefits, ESG's main benefit is better insight into the long-term sustainability of portfolio holdings. Specifically, evaluation of ESG criteria provides better understanding of operational, financial and reputational risks which are present when investing in companies or countries with poor ESG practices, enabling investors to appropriately tilt their portfolio weights based on this information.

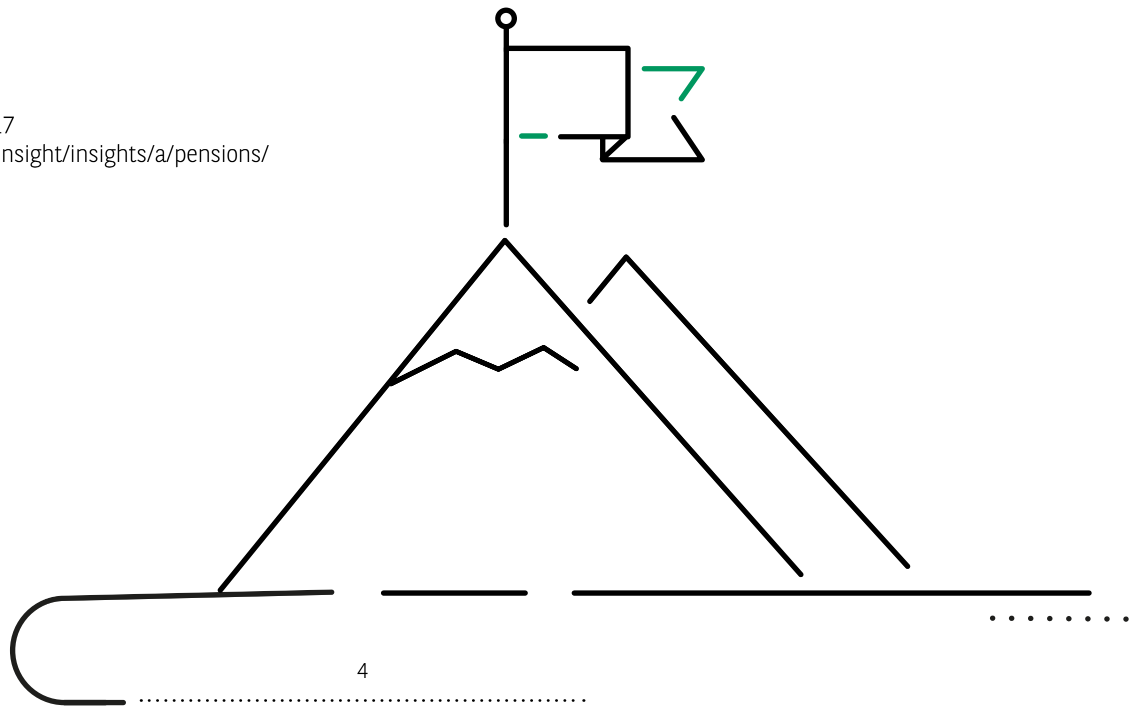
This then results in improved performance over time. ESG can potentially provide investors with insights that limit blow ups and/or the ability to generate alpha by investing in those securities which have a social or environmental approach that differentiates them in a positive way and generates profitable and sustainable business. While some believe it is debatable as to whether or not ESG provides better performance, there have been many such studies demonstrating it does.

However, there continue to be a number of challenges regarding ESG which the industry will need to resolve. Key among those challenges are the following:

- Quality of data available – investors find it challenging to compare data across securities as no standardised, high quality ESG data exists. Companies do not consistently report in a comprehensive manner on non financial data elements, such as ESG data. Also, there is a lack of consistent regulatory standards across countries.

- Performance measurement of ESG strategies – no consistent standards for measuring ESG performance currently exist. The industry has yet to implement a universally accepted approach to ESG performance as it has for other investment performance metrics.

1 PRI website - 15 August 2017
2 www.iuslaboris.com/en-gb/insight/insights/a/pensions/new-eu-pensions-directive/



100 PRI signatories with
$6.5 trillion in AUM in 2006 versus
1,750+ signatories
representing approximately
$70 trillion in AUM in 2017[3]

200 ESG studies
showing diligent sustainability practices have positive influence on investment performance[6]

25%
increase in assets being managed under responsible investment strategies with ESG component growing by
38%[4]

2,000+
academic papers establish positive relationship between ESG evaluations and corporate financial performance[5]

3 PRI website - 15 August 2017
4 Growth from 2014 to start of 2016 according to the Global Sustainable Investment Alliance - 2016 Global Sustainable Investment Review, Global Sustainable Investment Alliance
5 Study performed by Gunnar Friede, Timo Busch and Alexander Bassen in 2015 developed this finding - Journal of Sustainable Finance & Investment 5:4, 201-233, DOI 10.1080/20430795.2015.1118917
6 Number of studies reviewed by researchers at University of Oxford- From the Stockholder to the Stakeholder, How Sustainability Can Drive Financial Outperformance, March 2015, Gordon L. Clark (University of Oxford), Andreas Feiner (Arabesque Asset Management Ltd), Michael Viehs (University of Oxford)

ESG AT BNP PARIBAS ASSET MANAGEMENT

As a global investor, our commitment to acting responsibly is central to our overall approach. We first established our in-house ESG expertise in 2002 with the creation of an ESG research team.

OUR BACKGROUND AND HISTORY

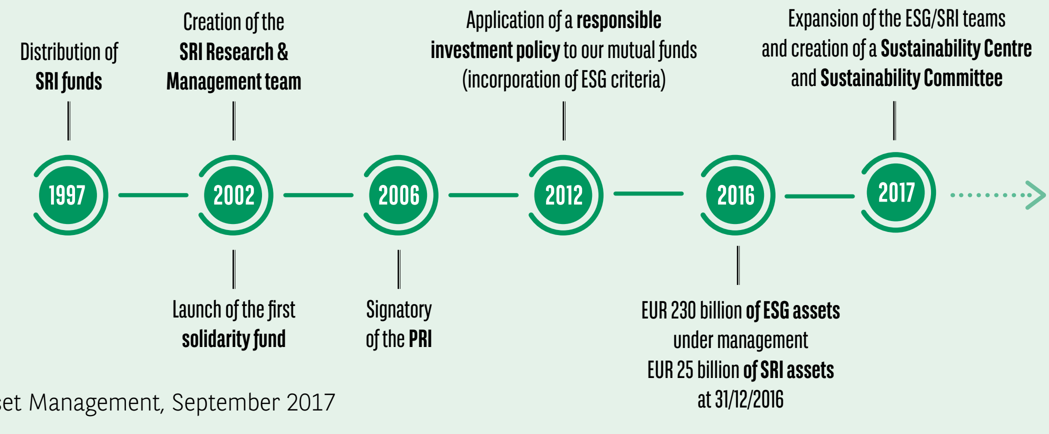
As a global investor, our commitment to acting responsibly is central to our overall approach. We first established our in-house ESG expertise in 2002 with the creation of an ESG research team. Since that time, we have been a leader in industry sustainability initiatives. In 2006, we were one of the 52 founding signatories of the United Nations-backed Principles for Responsible Investment. Our commitment to ESG did not stop there. Since 2012, we have applied a policy of responsible investment to all funds that we have opened. This policy is based on ensuring that the companies in which we invest comply fully with the 10 principles of the UN Global Compact and a series of sector-specific policies that provide the framework for the investments we make in sensitive sectors.

We have a dedicated ESG research team which sits within our Sustainability Centre. The team has developed a proven proprietary scoring methodology which combines a quantitative scoring process with a qualitative overlay analysis that reflects a more in-depth study performed on core sector issues.

To further improve portfolio integration of ESG criteria, ESG correspondents, who are typically senior portfolio managers, have been appointed in our investment teams worldwide. Their task is to distribute to the investment management teams our up-to-date exclusion lists, the results of our research work and ESG ratings. They are tasked with ensuring the investment team understands the ESG research and securing answers from the ESG research team regarding any questions the investment team may have.

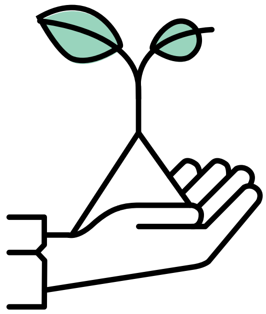
In addition to integration of ESG criteria in our portfolios, we also believe in responsible ownership and exercising our voting rights at annual general meetings to foster high corporate governance standards and good social and environmental practices.

FIGURE 3 - RESPONSIBLE INVESTING HISTORY AT BNP PARIBAS ASSET MANAGEMENT

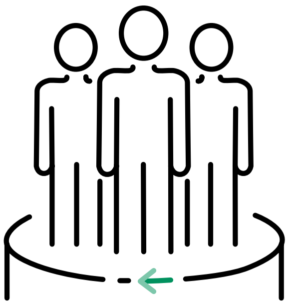


Source: BNP Paribas Asset Management, September 2017

1,504 general meetings attended where we voted in favor of 52% of the 18,808 resolutions brought to a vote. 1 out of every 6 resolutions were not supported[7].



In 2017, the PRI awarded our organisation an A+ rating, the highest possible rating for our ESG integration. The PRI highlighted our leadership in terms of responsible investment and deployment of ESG criteria in our management practices.



7 BNP Paribas Asset Management engagement activity in 2016

OUR ESG RESEARCH PROCESS

The coverage and scope of our ESG research at this time is around the MSCI World Developed Markets Index; the Barclays Euro Aggregate Bond Index; and 90 emerging market countries. For the developed market indices, we perform sector reviews which have three components: a quantitative screen; a qualitative screen; and an ultimate ESG ranking. Our process includes a proven proprietary scoring methodology combining quantitative data and in-depth qualitative research and analysis on key material issues.

FIGURE 4 - OUR ESG RESEARCH PROCESS

Quantitative scoring of companies from 0 to 100 (100 = highest) based on:

- Common ESG indicators across sectors
- Sector specific indicators

- In-depth analysis of companies on key material ESG issues
- Exchange with companies
- Controversies follow up

- Final ESG score
- Benchmarking of companies against peers
- Ranking by decile from 1 to 10 (1 = highest)

We begin with the quantitative screening phase where we look at environmental, social and governance data to which we apply two sets of in-house developed indicators which aim to reflect how a company manages the different ESG risks it faces.

These two sets of indicators are:

1

Common indicators across sectors for which we assign a minimum **40% final rating**. Some examples are:

Environmental

Reducing greenhouse gases; promoting energy efficiency; preventions of industrial accidents; management of water resources; and treatment of waste.

Social

Respect by the company and its subcontractors for human rights and workers' rights and human resource management (e.g., workers' health and safety, career monitoring, remuneration modes and responsible handling of restructuring).

Governance

Policy on bribery and corruption; whistleblower programmes; tax transparency; board independence; and audit committee independence.

2

Specific indicators per sector for which we assign a maximum **60%** final rating. Each ESG sector analyst defines the specific indicators per sector and defines the weight of each indicator depending on the specificity of the sector. Some examples are:

Energy sector

Asset integrity; human rights; operational risk management; climate change strategy; and corruption.

Banking sector

Executive pay; internal control efficiency; service and product offer (assess whether there is a strong environmental and social added-value); and management of any restructuring.

Based on this analysis we calculate a final ESG quantitative score for each company in the sector from 0 to 100 as follows:

FINAL GOVERNANCE SCORE X min. 30% weight + FINAL SOCIAL SCORE X min. 20% weight + FINAL ENVIRONMENTAL SCORE X min. 10% weight

= FINAL ESG QUANTITATIVE SCORE FOR COMPANY

To refine our quantitative analysis, we add a qualitative assessment for each company, which reflects a more in-depth study of key material ESG issues per sector. We assess how a company manages important practices that will have a financial impact on the company. This assessment is based on meetings with the company's management as well as engaging individually, collectively or through multi-stakeholder initiatives with the company and the results that generated. Our view could also be related to our assessment of how the company managed a controversy.

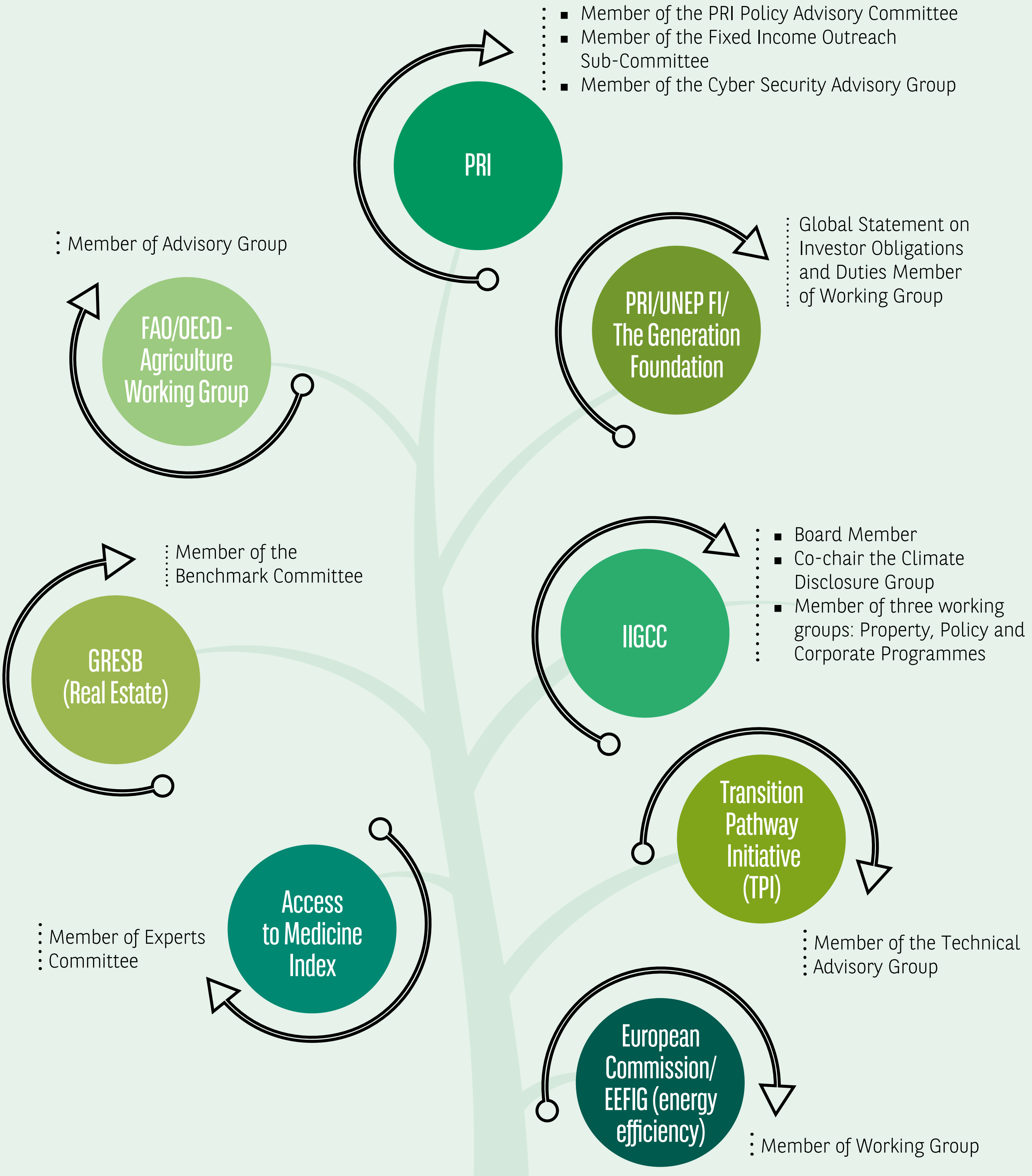
The qualitative analysis is a key strength of our ESG research process. Our engagement with companies on ESG issues gives us tremendous insight into how well a company is managing ESG issues that can impact the company's performance in the long term. We are recognised as a lead player in key collaborative engagement initiatives and individual on-going dialogue with targeted companies, which provides us with deep knowledge and unique insights.

The qualitative assessment results in deducting up to a maximum 30% penalty or adding up to a 30% bonus to the ESG quantitative score to achieve a final overall ESG score. Each company in the sector then receives a final ESG decile score.

The ESG decile ranking per sector is then provided to our investment teams to incorporate into their investment process.

For fixed income where we are investing in sovereign bonds, a similar process is employed looking at each country and coming up with a decile score and ranking per country based on a similar approach as described above.

Our involvement in ESG initiatives at the industry level is key to both sharing and gaining best practices and provides benefits for the entire investment community



Source: BNP Paribas Asset Management

CASE STUDY: IMPLEMENTING ESG IN AN EMERGING MARKET DEBT PORTFOLIO

As described earlier in the brochure, we believe there is increasing evidence that ESG factors do improve investment returns. We believe an alpha case can be made for using ESG in an emerging market debt (EMD) portfolio based on the conviction that sound policies and long-term planning lie at the heart of both sustainability and return on investment.

WHY WE DO SO

Emerging market countries are developing in different ways and at different rates. As a result some countries are moving in a positive direction, with improving standards of living, strong policy frameworks and an institutionalisation of democracy while others are sliding down a deteriorating policy trajectory along which institutions as well as citizens will suffer. Here an ESG framework enhances our process in separating those moving forward from those with a risk of sliding downwards, applying a forward-looking focus on long-term success that is different from our daily, alpha-oriented investment process. Furthermore, EMD investing is not just about finding the best markets; it is also about avoiding the worst ones. Our experience leads us to believe that long-term sustainability is synonymous with minimising crisis or 'blow up' risk.

OUR PROCESS

Our EMD investment process has three major layers:

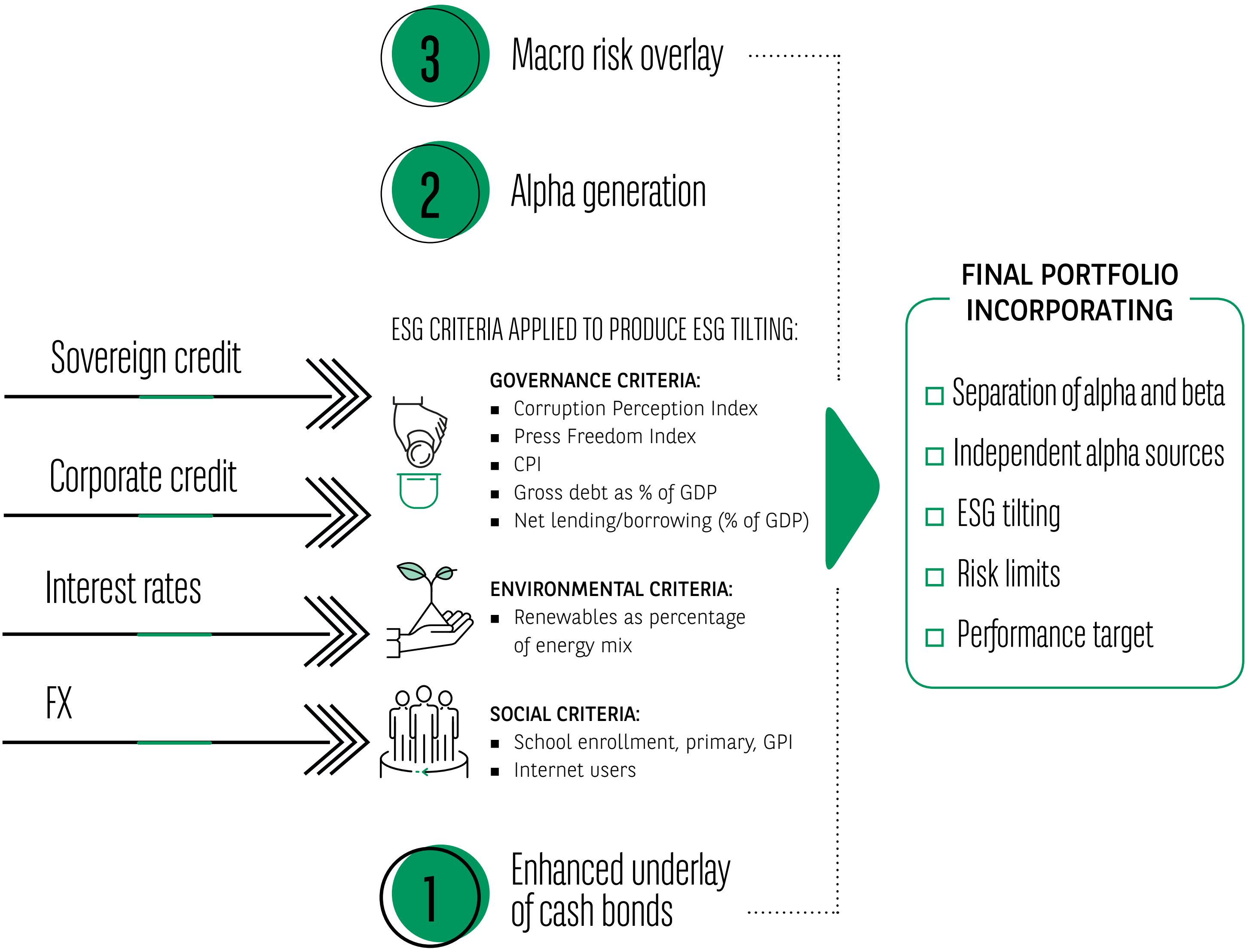
1. Separation of alpha from beta and the construction of an enhanced underlay of cash bonds;
2. Isolation of alpha drivers, including currency, interest rates, quasi/corporate credit and sovereign credit, creating active portfolios of trade ideas dedicated to these drivers; and
3. Incorporation of specific risk limits and performance targets based on our macroeconomic view set.

ESG factors are applied during the alpha stage of portfolio construction. For EMD, coverage is a special challenge given that for the 90 countries that we invest in, a full spectrum of data is not always available and certainly not on a regular basis.

Our ESG research team maintains a sovereign debt ESG model which assesses governments' ability to protect citizens' best interests and provide services and goods embedding environmental, social or institutional strength. Navigating the data constraints, our EMD ESG screen incorporates eight environmental, social and governance criteria alongside economic factors with consistent cross-country coverage such as those shown in figure 5. Each country receives a number for each of the eight categories (rank, percentage, index number) and then from there a percentile rank is calculated for each country based on the average of each of the categories.

We then use our composite score on each of the 90 emerging market countries to determine position sizing for investments in our portfolios. We blend the country's alpha opportunity with its ESG rating in the portfolio construction process, in essence increasing our overweights in high ESG countries and curbing our overweights in low ESG countries. We still do invest in low ESG countries where the alpha conviction is high, but we invest less in such countries than would otherwise be the case.

FIGURE 5 - EMD INVESTMENT PROCESS



WHO WE ARE

BNP PARIBAS ASSET MANAGEMENT

BNP Paribas Asset Management is the investment management arm of BNP Paribas, one of the world's major financial institutions. Managing and advising assets totaling EUR 569 billion as at 31 December 2017, we offer a comprehensive range of active, passive and quantitative investment solutions covering a broad spectrum of asset classes and regions. With more than 700 investment professionals and around 600 client servicing specialists, we serve individual, corporate and institutional investors in over 70 countries around the world.

Our clients trust us to help them achieve their financial goals. Our responsibility is to add sustainable value to their investments while contributing to a better world for future generations. It's a simple and strong proposition – and it's at the heart of our company's quest to be a leading provider of quality investment solutions for individual, corporate and institutional investors. This is why so many investors choose to work with us.

Our five key attributes are:

- We manage assets with conviction and open minds;
- We are close to our clients and their investments;
- We invest responsibly with the world in mind;
- We harness the collective power of individuals; and
- We are built to stand the test of time.

BNP PARIBAS

BNP Paribas is a leading bank in Europe with an international reach. It has a presence in 73 countries, with more than 196,000 employees, including more than 148,000 in Europe. The Group has key positions in its three main activities: Domestic Markets and International Financial Services (whose retail-banking networks and financial services are covered by Retail Banking & Services) and Corporate & Institutional Banking, which serves two client franchises: corporate clients and institutional investors. The Group helps all its clients (individuals, community associations, entrepreneurs, SMEs, corporates and institutional clients) to realise their projects through solutions spanning financing, investment, savings and protection insurance.

In 2017, for the second year in a row, BNP Paribas was named the most innovative investment bank for climate change and sustainability by The Banker. Furthermore, on 1 September 2017, BNP Paribas created the Company Engagement Department, which will work with all BNP Paribas business lines, in order to define and implement the company's engagement strategy related to the following key fields for the future of our society: economic development, the environment and energy transition; social inclusion and regional development; diversity and respect of human rights. It will deploy the necessary resources to ensure that all employees play an active role in this engagement strategy.

Source: BNP Paribas Asset Management, 31 December 2017; BNP Paribas, 31 December 2017

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