PORTFOLIOMETRIX

Investment Management **by Design**

ESG IN INVESTING

EVERYTHING YOU WANTED TO KNOW BUT WERE AFRAID TO ASK.

A PORTFOLIOMETRIX WHITE PAPER

November 2020

For investment professional, financial adviser and advised investor use only.

CONTENTS

1. INTRODUCTION: ESG IN INVESTING CAN NO LONGER BE IGNORED

Environmental, Social and Governance (ESG) investing is one of the fastest growing areas of finance, moving from a niche industry to a major disruptor.

The signs of the shift are everywhere. In 2020 signatories of the United Nations Principles for Responsible Investment (PRI) hit the 3,000-mark having a combined $103 trillion in assets under management. In 2019 CFA Institute launched an ESG qualification and the same year cumulative issuance of green bonds hit $1 trillion. Perhaps most shocking was a move by the Business Roundtable, a non-profit organisation whose membership is made up of the chief executives of major US companies and thus, in many respects, the epitome of capitalism. In October 2019, in a statement signed by almost 200 CEOs, including Jeff Bezos of Amazon and Jamie Dimon of JP Morgan, it moved away from the concept of shareholder primacy to one focusing on all stakeholders. It formally recognised that business owes a commitment to employees, customers, suppliers and communities (including the environment) as well as shareholders.[1]

At the same time asset owners both big and small are becoming more aware of social and environmental issues. This has been a lengthy awakening but includes some notable "eureka" moments. 2017's Blue Planet II, presented by David Attenborough, is perhaps one of the best known of these, particularly around the problem of plastic pollution. Indeed, it has been so influential that the awareness it has generated has been dubbed the 'Blue Planet effect'.

Regulation is also spurring the consideration of environmental and social externalities in finance. EU legislation is due in 2021 requiring European advisers to:

- Take account of their client's ESG preferences as part of the suitability process
- Disclose how they take sustainability risks into account in the selection process of financial products for clients, regardless of the sustainability preferences of the end investor

Brexit has complicated whether these rules will directly affect UK advisers not advising EU clients but it is a fair bet that they will become subject to similar regulations in future. In summary, business is increasingly incorporating ESG considerations into day to day practice, savers are increasingly expecting people and the planet to be considered as part of investing, and financial regulators are on the prowl to make sure that environmental and social factors are scrutinized and disclosed.

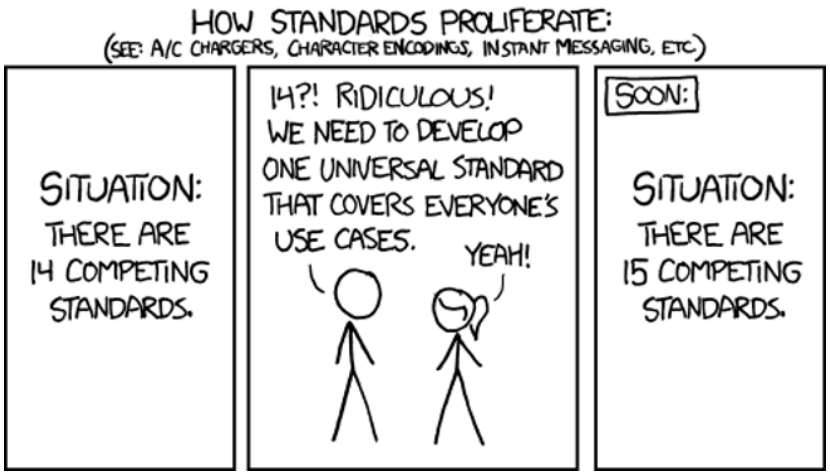
At the same time responsible investing is complex, its terminology is still not completely formalised, regulations and investment providers keep evolving and questions remain whether investing sustainably affects performance and hence the likelihood of meeting financial goals. Our aim is to shed light on these topics.

[1] https://opportunity.businessroundtable.org/wp-content/uploads/2019/08/BRT-Statement-on-the-Purpose-of-a-Corporation-with-Signatures.pdf

This paper is primarily aimed at financial advisers – familiarity with its subject matter is the first step to being able to meet client demand for responsible investments as well as to comply with upcoming regulation (we include some specific ideas on how to prepare below). But we hope it will be interesting for the clients of advisers too (although for any clients reading this, perhaps skip the regulation sections – life is too short to wade through EU directives unless it's part of your job!).

We don't have all the answers, but we can provide a good start. The journey towards a more responsible and sustainable investment industry is an exciting one – we look forward to sharing it with you.

2. TERMINOLOGY



Source: Xkcd.com/927

In any new field it takes a while for standards to emerge (in this case, the standards being the terminology used to describe the different types of socially and environmentally conscious investing).

Rather than attempting to create our own standards, this paper will be drawing terminology from existing authorities to clear up some of the confusion around how ESG relates to exclusions, how sustainable investing fits in with stewardship and what green investing has to do with impact. We have also included a more comprehensive set of definitions in Appendix 1.

Below, we draw heavily from the framework[2] put together by The Investment Association (IA), the trade body representing UK investment managers. They in turn build on the work of:

PRI Principles for Responsible Investment | GLOBAL SUSTAINABLE INVESTMENT ALLIANCE | GIIN GLOBAL IMPACT INVESTING NETWORK

The EU is also working on the terminology of socially and environmentally conscious investing. However, although they will no doubt be very influential in this area globally (in the same way their data protection legislation has been), current EU proposals are still a work in progress, focus more on environmental standards rather than social ones, and are more technical in nature rather than trying to create an overall framework for describing the different types of socially and environmentally conscious investing. From what we have seen of their plans it appears their work, when finalised, will be complementary to the framework below.

[2] 2019 IA Responsible Investment Framework Final Report https://www.theia.org/sites/default/files/2019-11/20191118-iaresponsibleinvestmentframework.pdf

Responsible Investment

Historically, a lot of terms have been used for investing that incorporates social, environmental, or moral considerations along with pure financial considerations. These terms include ethical, green, socially conscious, ESG, sustainable and socially responsible investing (SRI). As umbrella terms none of these is quite broad enough to encompass all strategies, and some have unhelpful connotations (for example are you unethical if you don't invest in an ethical fund?).

In their "2019 IA Responsible Investment Framework Final Report"[3] the IA uses the term Responsible Investment as their catch-all term for all investing that aims to:

- Maximise long-term returns through consideration of pertinent environmental, social and governance (ESG) risks and opportunities
- Achieve particular sustainability outcomes (for example investing in renewable energy)
- Reflect a particular set of values or beliefs

Responsible investment can also perhaps be characterised by what it is not. It is not philanthropy, which though responsible does not aim to achieve a financial return. But equally, not all investing that falls outside of responsible investment is automatically 'irresponsible'. Whilst not fulfilling the criteria above, investing in a passive tracker of the FTSE 100 or S&P 500 might be better described as 'agnostic' in a responsibility sense.

The IA breaks responsible investment down into five components:

ESG Integration

Stewardship

Exclusions

Sustainability Focus

Impact Investing

The IA takes the definitions of these components from several well-known external bodies and, as you will see from their definitions below, there is some overlap in these components. The diagram below is helpful in considering how the components broadly relate to each other in terms of impact and generating returns:

Figure 1: Spectrum of Responsible Investment

Source: PortfolioMetrix, adapted from Bridges Fund Management's Spectrum of Capital and The IA's Responsible Investment Framework

[3] https://www.theia.org/sites/default/files/2019-11/20191118-iaresponsibleinvestmentframework.pdf

ESG & ESG Integration

ESG refers to the Environmental, Social and Governance characteristics of a company or business. These facets of the business contribute to the risks and opportunities it is exposed to now and in future.

Environmental refers to a company's dependency and impact on 'natural capital', the stock of renewable and non-renewable natural resources. This would include how the business impacts (or is impacted by) climate change, what natural resources it produces or uses and whether it contributes to pollution or waste. All of these factors affect how susceptible the company is to reputational and regulatory risk, asset devaluation (including unusable 'stranded assets'), and compensation claims (for example the 2010 Deepwater Horizon oil spill which severely affected the oil company BP). Environmental factors can also be opportunities. Companies building windfarms are benefitting from increasing demand for renewable energy.

Social factors include how the company affects customers, looks after its staff, deals with suppliers, and interacts with the communities in which it operates. Again, handling these issues badly can lead to reputational risk and, in extreme cases, the withdrawal of the company's social license to operate (for example payday lenders like Wonga which collapsed after the UK government clamped down on the extremely high interest rates they charged). Social factors can also represent opportunities, like the construction of social housing or responsible micro-finance.

Governance (or corporate governance) is the process by which a company is managed and overseen and includes factors like board structure to create proper accountability, and management remuneration to create alignment of interest with shareholders. Failures of governance can be very serious. The US company Enron which collapsed into bankruptcy after, amongst other failings, staff being rewarded based on short-term share price movements and the CFO being given free rein to create off-balance sheet vehicles to hide debt and inflate profits.

As defined by the UN PRI, **ESG Integration** is[4]:

"The systematic and explicit inclusion of material ESG factors into investment analysis and investment decisions".

It is important to note, however, that ESG integration does not prohibit any specific investments as long as material ESG risks are identified and taken into account as part of the investment decision. For example, funds properly integrating ESG can invest in oil companies, they just must be aware of the risk of some of their oil reserves becoming uneconomic due to changing environmental standards and be confident the price of the shares reflect this.

[4] https://d8g8t13e9vf2o.cloudfront.net/Uploads/d/t/z/maindefinitionstoprireportingframework_127272.pdf (p.5.)

Stewardship

According to the Financial Reporting Council in The UK Stewardship Code 2020[5]:

"Stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society."

As the definition makes clear, this incorporates many of the ideas of ESG, but also has the following key attributes:

- **Long-term investment focus**
- **Client-centric**
- **Exercising rights and responsibilities (for example, shareholders voting at AGMs and EGMs)**
- **Engaging with the companies or funds invested in**

Engagement is the process of intervention to make sure the value of assets is enhanced over time or does not deteriorate through neglect or mismanagement and is a particularly important part of responsible investment. Responsible investment is not just about investing in the 'right' companies, it is also about investing in companies that require improvement and engaging with them to help them get there. If successful, such engagement should benefit both wider society and the value of the investment.

Exclusions

Also referred to as negative screening and the predominant approach of many ethical funds.

"Exclusions prohibit certain investments from a firm, fund or portfolio. Exclusions may be applied on a variety of issues, including to align with client expectations. They may be applied at the level of:

- **Sector**
- **Business activity, products or revenue stream**
- **A company**
- **Jurisdictions/ Countries[6]**

There are many different types of exclusion including:

- Ethical/values-based/religious (e.g. alcohol, firearms, pork)
- Norms-based (e.g. companies involved in human rights violations/corruption)
- Poor sustainability (e.g. oil companies)
- ESG assessment (e.g. worst rated ESG companies)

[5] https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code_Final2.pdf (p. 4.)

[6] Adapted by IA from GSIA definitions (Global Sustainable Investment Alliance) https://www.theia.org/sites/default/files/2019-11/20191118-iaresponsibleinvestmentframework.pdf

Sustainability Focus

"Investment approaches that select and include investments on the basis of their fulfilling certain sustainability criteria and/or delivering on specific and measurable sustainability outcome(s). Investments are chosen on the basis of their economic activities (what they produce/what services they deliver) and on their business conduct (how they deliver their products and services)." [7]

There are different types of sustainability focused strategies. Examples include:

- **"Sustainability Themed Investing"** focuses on companies that provide solutions to sustainability problems (such as pollution prevention or climate change mitigation).
- **"Best in Class"** focuses on using some sustainability criteria (perhaps lowest carbon users and producers) to focus exposure on sector-leading companies.
- **"Positive Tilt"** overweights investments that fulfil certain sustainability criteria and underweights others relative to an index.

Impact Investing

"Investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return." [8]

An important part of impact investing is promoting its use more widely amongst the general investing community. According to the Global Impact Investing Network (GIIN) the other key elements of impact investing are:

- **"Intentionality":** Impact investments intentionally contribute to social and environmental solutions. This differentiates them from other strategies such as ESG integration, stewardship and exclusions.
- **"Financial Returns":** Impact investments seek a financial return on capital that can range from below market rate to risk-adjusted market rate. This distinguishes them from philanthropy.
- **"Range of Asset Classes":** Impact investments can be made across asset classes including bonds, private investments or listed equities.
- **"Impact Measurement":** A hallmark of impact investing is the commitment of the investor to measure and report the social and environmental performance of underlying investments.

Often the positive impact sought will be on one of the UN's Sustainable Development Goals (explained in A Brief History of Responsible Investing below).

[7] Adapted by IA from GSIA definitions (Global Sustainable Investment Alliance) https://www.theia.org/sites/default/files/2019-11/20191118-iaresponsibleinvestmentframework.pdf
[8] Global Impact Investing Network (GIIN), "What you need to know about impact investing" https://thegiin.org/impact-investing/need-to-know/#what-is-impact-investing

Greenwashing

As environmental awareness has grown, so too have instances of companies pretending to be greener than they are. Greenwashing is a form of marketing spin, in which a false impression is given, or misleading statements are made, to persuade the public that an organisation's products, aims or policies are more environmentally friendly than they actually are. For example, a fund branded as being ESG without having investment processes and portfolios consistent with that claim.

Regulators, governments and multi-national organisations recognise this potential problem and are clamping down on it within the investment industry. In part they are doing so by improving transparency for investors, for example the EU with its forthcoming 'Taxonomy' of environmentally sustainable activities and proposed Ecolabel for retail financial products.

3. A BRIEF HISTORY OF: RESPONSIBLE INVESTING

7 TH CENTURY
Islamic banking prohibits investments in alcohol, gambling and pork

18 TH CENTURY
Quakers and Methodists prohibit certain investments

1950S & 1970S
Trade unions use the capital assets of their pension funds to positively influence society

1971
First ethical collective vehicle launched in the US, the Pax World Fund

1973
First ethical unit trust proposed in the UK, although only launched in 1984

1977
Business pushes back against apartheid in South Africa through the Sullivan Principles

1983
EIRIS, the UK's first independent research service for ethical investors established

1990
Domini 400 Social index, one of the first responsible indices launched

1992
The Cadbury Report published in the UK (precursor to the world's first corporate governance code in 1998)

1999
Term Socially Responsible Investing coined

2004
Term ESG coined

2006
UN PRI founded

2008
First green bond issued by the World Bank

2015
UN Sustainable Development Goals (SDGs) launched

2016
Paris Agreement signed

2019
UK's Investment Association launches its Responsible Investment Framework

We've split the below section into two parts.

The time-pressed may want to skip ahead to Part 2: The Era of ESG which covers developments since the coining of the term ESG in 2004.

Those wanting to dive deeper into the history and philosophy of responsible investing should start below with Part 1: The Evolution of ESG.

PART 1: THE EVOLUTION OF ESG

Responsible investing has a long history, gradually moving from just exclusions to more complex positive screening strategies aiming to support the environment and society. Faith-based communities have for hundreds, if not thousands, of years influenced how their members spend and invest their money. Islamic banking, which is grounded in Sharia principles, dates to the beginning of Islam in the seventh century and prohibits investments in alcohol, gambling and pork. In the west, Pennsylvanian Quakers had prohibited engaging in the slave trade by 1758. In his 18th century sermon, 'The Use of Money', John Wesley, one of Methodism's founding fathers, mandated what type of company his adherents could and could not invest in, thereby providing us with an early form of negative screening.

These early roots helped coin the term 'ethical investing' as well as 'sin-stocks', the equities of companies involved in those prohibited areas like tobacco, alcohol and gambling.

In the 1950s and 1960s trade unions started using the capital assets of their vast pension funds to influence wider society, with the International Brotherhood of Electrical Workers in the US helping to develop affordable housing projects, whilst the United Mine Workers invested in health facilities.

In the 1960s and 1970s, Milton Friedman (later a winner of the Nobel Memorial Prize in Economic Sciences) introduced what was to become known as the Friedman doctrine or shareholder theory, the ideological nemesis of responsible investing. Shareholder theory became the prevalent business ethics belief of the 20th century and argued that companies should be run primarily for the benefit of their shareholders, aiming only to maximise their returns. Shareholders could then individually decide what social initiatives, if any, they wanted to take part in. Subsequent progress in the responsible investment field consisted of chipping away at this idea of keeping profit and purpose separate. In 1971, the first ethical collective vehicle (mutual fund) was launched in the United States by Luther Tyson and Jack Corbett, employees of the United Methodist Church. The Pax World Fund was founded partly in response to the Vietnam War and to protest the American companies profiting from it, but more broadly as a mechanism to encourage companies to both create and meet fixed standards of social and environmental responsibility.

The Methodist Church also inspired the UK's first ethical unit trust when Charles Jacob, an investment manager with the church, proposed one in 1973. It faced resistance from the Department of Trade but was finally approved in 1979 and launched by Friends Provident in 1984. It was followed in 1987 by the UK's first environment focused fund, the Jupiter Ecology fund.

Other wider social causes caused individual businesses to respond outside a narrow interpretation of the Friedman doctrine. The 1977 Sullivan Principles, drawn up by the Reverend Leon Sullivan, a board member of General Motors in the United States, laid down requirements for the equal treatment of employees regardless of their race as a precondition for doing business in apartheid South Africa. Widely adopted by companies in the United States the principles helped drive the South African disinvestment campaign of the 1980s.

As part of the growing ecosystem of responsible investment in the UK, EIRIS (Ethical Investment Research Services), the UK's first independent research service for ethical investors, was established in 1983.

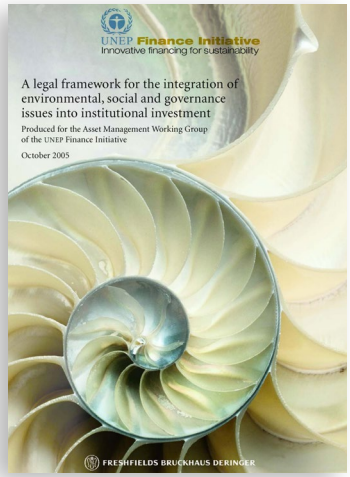
A more direct challenge to shareholder theory came in 1988 when James S. Coleman wrote an article in the American Journal of Sociology titled "Social Capital in the Creation of Human Capital". The article challenged the dominance of the concept of 'self-interest' in economics and introduced the concept of social capital into the measurement of value.

In 1990, one of the first responsible investment focused indices, the Domini 400 Social index, was launched in the US, and in 1991 the UK Social Investment Forum (UKSIF) was established.

In the UK, the foundation of the world's first corporate governance code (a set of standards of good practice for listed companies) was laid in the Cadbury Report, published in 1992. The Combined Code itself was published in 1998. Contemporaneously, by 1996 there was over £1 billion held in UK retail ethical funds.

In 1999 the Dow Jones Sustainability Indices were launched (the first global equity index of its sort) and the term Socially Responsible Investing was coined.

PART 2: THE ERA OF ESG



In 2004 the term ESG was coined in a landmark report 'Who Cares Wins' by a group of financial institutions invited by the UN to develop guidelines and recommendations on how to better integrate environmental, social and corporate governance issues in the asset management industry. John Elkington coined the similar concept of the "triple bottom line" (financial, social and environmental) in 1994.

In 2005, another plank of the Freidman doctrine fell when the UN commissioned a report on the interpretation of the law with respect to investors and ESG issues. Known colloquially as the Freshfields Report after the law firm from which it was commissioned it concluded that not only was it permissible for investment companies to integrate ESG issues into investment analysis, it was arguably part of their fiduciary duty to do so.[9]

These two reports were the backbone for the UN Principles for Responsible Investment (PRI) which was launched in 2006. It is a United Nations-supported international network of investors working together to contribute to the development of a more sustainable global financial system by implementing its six aspirational principles.

The Principles for Responsible Investment

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.**

Source: unpri.org

2008 saw the World Bank issue the first labelled 'green bond', a bond whose proceeds are ring-fenced for either climate or environmentally focused projects. The European Investment bank had issued a similar 'climate awareness bond' the year before.

In 2015 the UN Sustainable Development Goals (SDGs) were launched. These 17 goals have been adopted by all of the UN Member States and aim to provide countries and their government bodies with a blueprint to 'end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030'.

[9] www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf

Figure 2: The Sustainable Development Goals

Source: sustainabledevelopment.un.org

The goals are purposefully high level in their nature, so as to capture all of the most critical issues facing the world's population, but are backed by a number of associated targets and indicators. They are also integrated because to truly achieve one goal, the others must be met too. The SDGs have been adopted by many asset management groups as a framework for thinking about investing sustainably and a way of demonstrating impact.

Also in 2015, under the auspices of the UN, the Paris Agreement was adopted and signed in 2016 with 189 states now a party to it. The agreement aims to keep the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5 °C, recognizing that this would substantially reduce the risks and impacts of climate change.

After adopting the 2016 Paris agreement on climate change and the UN 2030 Agenda for Sustainable Development, the European Commission's Action Plan on Sustainable Finance in 2018 led to a raft of EU proposals on legislation to help embed ESG issues into the governance standards across the finance sector. This legislation is currently grinding its way through the various institutions of the EU but promises to be extremely influential.

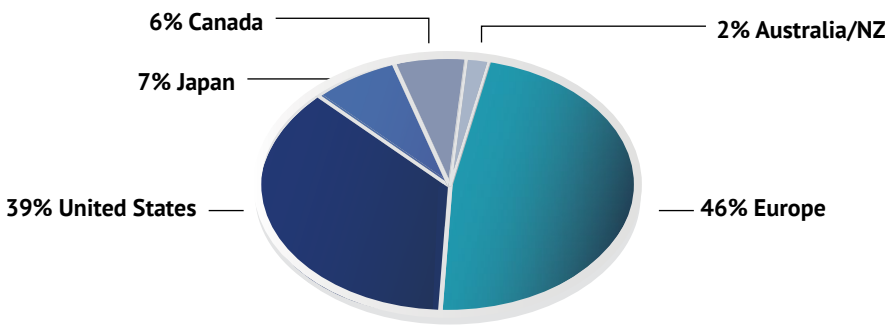
In 2019 the UK's Investment Association launched its Responsible Investment Framework, looking to establish a common language to define and categorize responsible investment.

4. SIZE OF THE MARKET

The responsible investment market is growing fast. At present it seems like a new ESG, sustainable or impact fund is being launched every week in the UK. And the data reinforce this perception. The Global Sustainable Investment Alliance (GSIA) produces a biennial report tracking responsible investment (or as they call it 'sustainable investment') in Europe, the United States, Japan, Canada, Australia and New Zealand.

In its latest report covering 2018 the market grew from just under $22.9 trillion in 2016 to $30.7 trillion in 2018. In 2018, Europe made up the biggest share at $14 trillion, followed closely by the US at just under $12 trillion.

Figure 3: Proportion of Global Sustainable (Responsible) Investing Assets by Region 2018



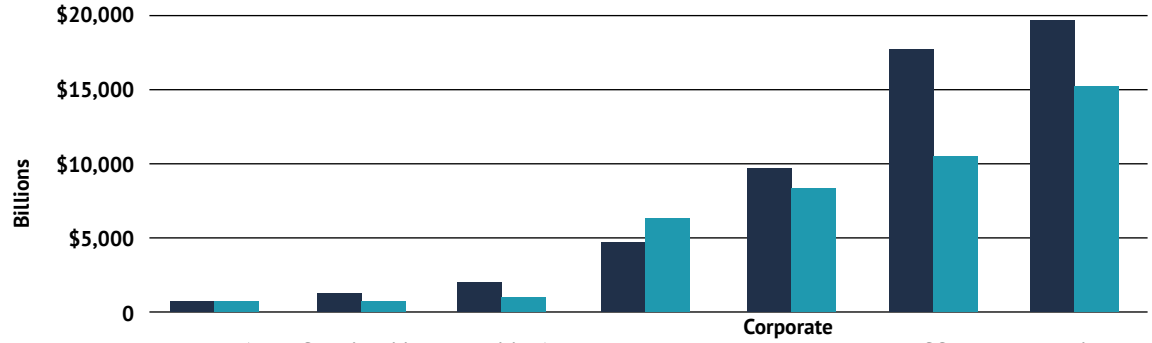
Source: 2018 Global Sustainable Investment Review, GSIA

The penetration of responsible investment was higher in Europe in 2018 (49% of all managed assets vs almost 26% of total managed assets in the US) but growth was stronger in the US (38% growth over 2016-2018 vs 11% in Europe).

As you would expect, the 'lighter-green' elements of exclusions (negative screening), ESG integration and corporate engagement (stewardship) make up the bulk of assets, with 'darker-green' impact, sustainability themed and positive screening making up a much smaller fraction. It is, however, these darker-green strategies that are seeing the most growth, albeit from a much lower base.

[10] http://www.gsi-alliance.org/wp-content/uploads/2019/03/GSIR_Review2018.3.28.pdf

Figure 4: Global Growth of Sustainable (Responsible) Investing Strategies 2016-2018

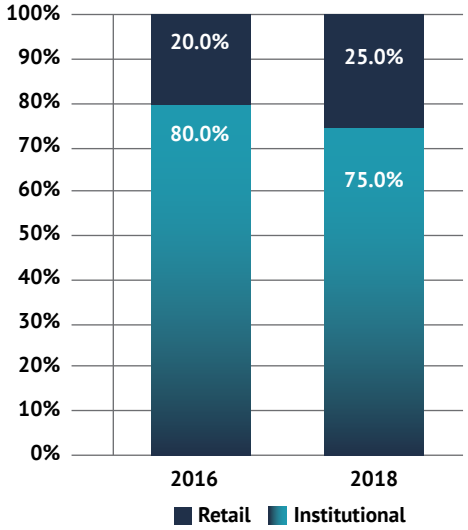


	Impact/ community investing	Sustainability themed investing	Positive/ best-in-class screening	Norms-based screening	Corporate engagement & shareholder action	ESG integration	Negative exclusionary screening
2018	$444.26	$1,017.66	$1,841.87	$4,679.44	$9,834.59	$17,543.81	$19,770.96
2016	$248.47	$276.16	$818.01	$6,195.40	$8,385.17	$10,353.20	$15,063,57
Growth 2016-18	79%	269%	125%	-24%	17%	69%	31%
CAGR	33.7%	92.0%	50.1%	-13.1%	8.3%	30.2%	14.6%

Note: Asset values are expressed in billions.
Some corrections to the 2016 strategies have been made. See the Methodology section for more information.
Source: 2018 Global Sustainable Investment Review, GSIA

Also of importance to financial advisers is that the proportion of responsible assets held by retail clients, whilst smaller than that held by institutional investors, is increasing quickly:

Figure 5: Global Shares of Institutional and Retail Sustainable (Responsible) Investing Assets 2016-2018



Note: Institutional and retail investor data were not collected in Australia / New Zealand
Source: 2018 Global Sustainable Investment Review, GSIA

The GSIA's next report, covering 2020, is due out next year – we expect it will confirm a continuation of the 'ESG explosion'.

5. ESG MEASUREMENT & RATINGS AGENCIES

A great deal of ESG measurement is done internally by asset managers and other investment companies. The evaluation of companies' ESG strengths and weaknesses requires fundamental research and, as the active/passive debate rumbles on, many active managers argue this plays to their strengths as good active managers can integrate this research into their existing investment processes.

However, there are other important players in the ESG space, used both by active managers and increasingly by passive providers who want to launch responsible investment offerings: ESG Ratings providers. The best known of these are MSCI, Sustainalytics (now owned by Morningstar), Vigeo Eiris (now owned by Moody's), Asset4 (owned by Refinitiv) and ISS, but there are many others. They collect and aggregate a range of information on a company's ESG performance: its own disclosures, third-party reports (e.g. from NGOs), news items, and proprietary research through company interviews and questionnaires. They come up with an overall ESG score, as well as scores for the individual components (E, S, and G).

The problem with ratings providers (and indeed with active managers who do it themselves) is that evaluating ESG performance is complicated. Different analysts and providers will measure the same attribute differently, perhaps by analysing diversity (as part of the S in ESG) via gender pay gaps whilst others will look at female & ethnic minority board representation. Then there is the problem of scope. One ratings agency may include electromagnetic radiation in its evaluation of a company's environmental record, others may not. Then there is the problem of weight, different agencies will place different weights on individual components. Combine these differences with the inevitable human biases involved and some quite stark differences in ESG ratings start to appear. According to two recent working papers[11], the correlations between ESG ratings across different ratings providers is about 0.5. This is much lower than the correlation between ratings by bond credit rating agencies, where the correlation between those of S&P and Moody's are around 0.99.

Whilst there is a lot of dispersion in ESG ratings, this does not mean that these ratings are useless or that providers are biased or incompetent. It does, however, mean that investors need to dive into how ratings are constructed before using them, and ideally do their own work too.

6. THE CHARACTERISTICS OF RESPONSIBLE INVESTMENT

Responsible investing encompasses too many different strategies to pin down universal characteristics. However, if we focus more narrowly on portfolios of companies with high ESG ratings, there is the perception amongst investors that these tend to display the following investment characteristics:

- Higher quality
- More expensive
- Greater exposure to larger companies

[11] The paper Aggregate Confusion: The Divergence of ESG Ratings by Florian Berg, Julian F Kölbel and Roberto Rigobon gives a correlation of 0.54 whilst ESG Rating Disagreement and Stock Returns by Rajna Gibson, Philipp Krueger and Peter Steffen Schmidt gives a figure of 0.46.

All these assumed characteristics make sense qualitatively. Higher-rated ESG companies should be better run (G), be subject to lower environmental risks (E) and have more harmonious relationships with their stakeholders (S). All of these are consistent with them being higher quality (less risky and more profitable). Higher quality companies are usually more expensive as investors realise they are less risky and more profitable and so bid up the price of their shares. And big companies will have more resources than smaller companies to put in place policies around ESG and to properly document and disclose them to ESG ratings analysts.

MSCI has done an analysis their own ESG ratings against 16 investment styles over the period 2007-2016[12] and the assumed relationships broadly held:

Figure 6: Cross-sectional Correlations of ESG Characteristics and MSCI's Style Factors (GEM LT Model)

Correlations	ESG	E	S	G
Mid Capitalisation	-17%	-19%	-7%	-4%
Earnings Variability	-12%	-12%	-8%	-10%
Residual Volatility	-7%	-7%	-6%	-11%
Book-to-Price Ratio	-6%	-8%	-3%	-7%
Liquidity	-4%	-3%	-1%	1%
Leverage	-3%	2%	0%	-3%
Beta	-3%	0%	-2%	-7%
Growth	-2%	0%	-2%	-2%
Momentum	0%	2%	-1%	3%
Earnings Yield	1%	1%	-3%	1%
Earnings Quality	3%	5%	4%	3%
Long-Term Reversal	4%	1%	4%	-3%
Profitability	6%	6%	3%	8%
Dividend Yield	7%	4%	5%	7%
Investment Quality	8%	9%	5%	5%
Size	17%	19%	7%	4%

*Stat. Significance	ESG	E	S	G
Mid Capitalisation	-6.9	-7.6	-2.8	-1.7
Earnings Variability	-5.0	-4.6	-3.0	-4.0
Residual Volatility	-3.0	-2.7	-2.5	-4.5
Book-to-Price Ratio	-2.3	-3.1	-1.1	-2.6
Liquidity	-1.4	-1.2	-0.4	0.3
Leverage	-1.3	0.9	0.0	-1.0
Beta	-1.0	0.0	-0.8	-2.7
Growth	-0.9	0.0	-0.9	-0.8
Momentum	-0.1	0.9	-0.4	1.3
Earnings Yield	0.3	0.6	-1.0	0.3
Earnings Quality	1.2	2.0	1.5	1.0
Long-Term Reversal	1.5	0.5	1.5	-1.1
Profitability	2.2	2.3	1.3	3.2
Dividend Yield	2.7	1.7	1.9	2.9
Investment Quality	3.2	3.4	1.8	2.1
Size	6.6	7.5	2.8	1.5

Source: MSCI, Analysis from Jan 2007 to June 2016; *statistical significance measured by t-stat

Consistent with investor consensus, MSCI's ESG ratings were positively correlated with quality (positive correlations to Investment Quality and Profitability and negative correlation to Earning's Variability) and positively correlated to size (Size and negatively correlated to Mid Capitalisation). And although the relationship was weaker, MSCI ESG ratings were inversely correlated to cheapness (Book-to-Price Ratio), or in other words positively correlated to 'expensiveness'.

A word of warning though: although the correlations discussed above were significant in a statistical sense (we can be confident in the results), the correlations weren't particularly strong. This means that whilst companies with higher MSCI ESG ratings tended to be higher quality, bigger and more expensive there were many exceptions.

[12] The MSCI Factor ESG Target Indexes, Padmakar Kulkarni, Mehdi Alighanbari, Stuart Doole Sept 2017

7. RESPONSIBLE INVESTMENT PERFORMANCE

And now we come to the question that almost every investor asks when considering responsible investment: 'does it still perform well?'

Historic (Mis)Perceptions

There has been a view among many investors that there was a 'cost' to investing responsibly. This could be from either reduced performance or increased risk as apparently financially attractive and defensive 'sin stocks' were excluded, or unproven but sustainable industries were included.

Some of the best-known academic studies seemed to back up these beliefs. In 2008 Fabozzi et al[13] showed that a sin portfolio produced an annual return of 19% over the study period, unambiguously outperforming common benchmarks. At the time they postulated that this outperformance was compensation for the reputational risk of investing in these companies.

However, over time the thesis of a cost to excluding sin-stocks has been seriously undermined, if not disproved. A follow-up article in 2017 by the same author (Blitz and Fabozzi[14]) showed that there was "no evidence that sin stocks provide a premium for reputation risk after controlling for their exposure to factors in today's asset pricing models". In simpler terms: the characteristics that made sin stocks successful investments in the past were not explicitly linked to them being sin stocks. With no knowledge of the future it would have been possible to achieve similar performance by investing in non-sin stocks.

Unfortunately, the follow-up studies tend to be less well known to the general public than the originals, but perceptions are nevertheless changing. This shift has undoubtedly been accelerated in 2020 by the outperformance of many sustainability focus and impact strategies during the 'coronacrisis'. These strategies tend to have far less exposure to oil and gas companies, banks, traditional auto manufacturers and airlines, industries that have performed horribly in the first half of 2020 due to the effects of COVID-19.

[13] For example Sin Stock Returns by Frank J Fabozzi, Becky J Oliphant and K. C Ma, The Journal of Portfolio Management 35(1):82-94 · October 2008
[14] Blitz, David and Fabozzi, Frank J., Sin Stocks Revisited: Resolving the Sin Stock Anomaly (August 9, 2017). Journal of Portfolio Management, Vol. 44, No. 1, 2017. Available at SSRN: https://ssrn.com/abstract=3015690

What Evidence do we Need?

Responsible investment advocates argue these strategies should continue to outperform over the long-term by emphasising high quality companies with better ESG profiles (through ESG Integration) and by investing in the technologies of the future (clean energy, for example). But is there solid evidence for this? Certainly, great performance over a few months isn't sufficient proof and the two studies mentioned previously[15] [16]are too limited, given that they only really touch on one part of responsible investing: exclusions.

To answer the performance question we need high quality research that covers responsible investment more generally. Ideally it should also be peer reviewed and published in a reputable academic journal to help avoid confirmation bias (a problem when you have passionate advocates for or against any idea) and conflict of interest (which are particularly prevalent when there is money to be made in selling an investment strategy). So, what does this sort of evidence have to say about the performance of responsible investing?

ESG and Corporate Performance

There is actually very good evidence that individual companies benefit from having a higher ESG rating. Deutsche Bank, in a 2012 review of the academic literature[17], found a higher ESG rating was strongly correlated with a lower cost of capital (the company could raise both debt and equity on easier terms) as well as outperformance in a business sense (higher accounting profits) and market sense (better stock returns). A large meta-analysis (a "study of studies") in 2015[18], covering the entire universe of about 2,200 academic studies published on the subject between 1970 and 2014, backed up these findings. It revealed roughly 90% of studies showed a positive or neutral/mixed relationship between ESG factors in a company and corporate financial performance, with the majority reporting a positive relationship. These findings are consistent with ESG being correlated with quality as a factor.

ESG and Fund Performance

However, a link between good ESG performance and financial performance at a company level is not the same as saying that responsible investment funds/strategies tend to outperform. For one thing, the studies tend to look at correlations (good ESG and good company performance tend to go together) rather than causation (good ESG leads to outperformance). For another, if the market is efficient with respect to ESG ratings, then companies with higher ratings will be more expensive which could eliminate any future stock outperformance. What you pay for an investment is, after all, a large determinant of how successful your investment will be. Indeed, both these studies[19] [20]showed neutral or mixed results for the question of whether socially responsible or ESG portfolios outperformed, as do more recent individual studies[21].

That said, just because funds have struggled to successfully incorporate ESG factors into portfolios historically, does not mean that there are not opportunities to do so. A paper by Alex Edmans in 2011 showed that the share price performance of a portfolio of companies with high employee satisfaction (part of S in ESG) significantly outperformed industry benchmarks from 1984-2009[22] whilst a study by Elroy Dimson et al. in 2015 showed that successful engagements with companies (good stewardship) between 1999-2009 led to firms outperforming subsequently whilst unsuccessful engagements did not[23].

[15] Sin Stock Returns, ibid.
[16] Sin Stocks Revisited: Resolving the Sin Stock Anomaly, ibid.
[17] Fulton, Mark and Kahn, Bruce and Sharples, Camilla, Sustainable Investing: Establishing Long-Term Value and Performance (June 12, 2012). Available at SSRN: https://ssrn.com/abstract=2222740 or http://dx.doi.org/10.2139/ssrn.2222740
[18] Gunnar Friede, Timo Busch & Alexander Bassen (2015) ESG and financial performance: aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment, 5:4, 210-233, DOI: 10.1080/20430795.2015.1118917 http://dx.doi.org/10.1080/20430795.2015.1118917
[19] Sustainable Investing: Establishing Long-Term Value and Performance, ibid.
[20] ESG and financial performance: aggregated evidence from more than 2000 empirical studies, ibid.
[21] For example, Jan-Carl Plagge and Douglas M. Grim find ESG equity funds do not produce statistically significant positive or negative gross alpha – Examining the Behaviour of ESG Equity Funds, The Journal of Portfolio Management, 2020
[22] Edmans, Alex, Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices (January 20, 2010). Journal of Financial Economics 101(3), 621-640, September 2011. Available at SSRN: https://ssrn.com/abstract=985735
[23] Dimson, Elroy and Karakaş, Oğuzhan and Li, Xi, Active Ownership (August 7, 2015). Review of Financial Studies (RFS), Volume 28, Issue 12, pp. 3225-3268, 2015.; Fox School of Business Research Paper No. 16-009. Available at SSRN: https://ssrn.com/abstract=2154724 or http://dx.doi.org/10.2139/ssrn.2154724

ESG and Performance: The Glass is (at least) Half Full

Despite mixed results at the portfolio level, advocates of responsible investing need not be discouraged. Company management should take note that ***good ESG is rewarded at the company level***, and at the very least the ***evidence does not support that at the portfolio level responsible investing underperforms*** agnostic investing (and some tantalising evidence for outperformance opportunities).

8. FORTHCOMING ADVICE REGULATION (AND HOW ADVISERS SHOULD RESPOND)

As the rest of this paper makes clear, there are many good reasons for advisers to take ESG seriously. ***But ultimately regulation will soon make it compulsory to do so.*** This particular section summarises our understanding of the state of play as of November 2020.

As part of its action plan for financing sustainable growth, the EU is developing two sets of rules that will affect continental European financial advisers. The proposed rules cover the integration of ESG preferences into advice, and the requirement to make additional disclosures to end-clients around sustainability risks. These are likely to come into force in 2021 and although Brexit has muddied the waters as to just how much they will directly affect UK advisers, recent announcements from the FCA, the Treasury and the Bank of England suggest the UK is moving in a similar direction, so UK advisers should begin to plan.

We cover the EU rules in more detail below as well as suggest a basic framework for implementing them.

Integration of ESG Preferences into Advice

MiFID II amendments (as well as those to the Insurance Distribution Directive) are planned which will make it ***mandatory for advisers to introduce ESG considerations into their suitability assessments***[24]. Just as they do for risk, firms will need to determine their clients' ESG preferences and take these into account when recommending investment products and services and when explaining to clients how their investment objectives are being met. Final rules and guidance are expected to be published in the next few months and are likely to come into force later in 2021.

Disclosure of Sustainability Risk Policies

Not only will advisers need to consider their client's ESG preferences during the advice process, but as part of the EU's Sustainable Finance Disclosure Regulation (SFDR) they will ***need to publish on their websites*** (so that clients and potential clients have access to it before they seek advice) ***how they take sustainability risks into account*** in the selection process of the products and services they recommended to clients. ***They will need to do this regardless of the sustainability preferences of the end investors they serve***[25]. This regulation is due to come into effect on 10 March 2021 but it was very recently announced will no longer apply in the UK.

[24] ESMA's technical advice to the European Commission on integrating sustainability risks and factors in MiFID II https://www.esma.europa.eu/sites/default/files/library/esma35-43-1737_final_report_on_integrating_sustainability_risks_and_factors_in_the_mifid_ii.pdf commenting on January's publication of draft rules: https://ec.europa.eu/finance/docs/level-2-measures/mifid-delegated-act-2018_en.pdf

[25] Clause 15, Regulation (Eu) 2019/2088 Of The European Parliament And Of The Council of 27 November 2019 https://eur-lex.europa.eu/eli/reg/2019/2088/oj

Adviser Readiness Toolkit

Detailed guidance will have to wait until the above legislation is finalised and any equivalent UK regulations are announced, but there are still some concrete steps all advisers can take to position themselves ahead of the regulatory curve:

1

Read up on Responsible Investing

ESG is growing in importance and it will be the advisers who are most familiar with it who will be able to seize the opportunities of increasing client demand as well as navigate the risks of future regulatory compliance. This whitepaper should assist in both regards.

2

Create a 'Responsible Advice' Policy

Use this as an opportunity to get ahead of any upcoming requirement to disclose how you take sustainability risks into account in the advice process, but also to highlight to clients your values and the value you create as an adviser (see also PortfolioMetrix's Value of Advice Whitepaper). Put this policy on your website.

3

Add ESG Questions to your Risk Questionnaire/Client Fact Find

Not only will this help demonstrate any upcoming requirement to add ESG to your suitability process, it should also spur valuable conversations with your clients. Take care when designing the questions though: they should be free of jargon and should not oversimplify complicated issues (e.g. many clients would answer the question 'are you for or against animal testing?' differently if asked it in a questionnaire or after you explain that pharmaceutical companies are legally required to test on animals before testing cancer drugs on humans).

4

Know your Product/Service Providers

Ask to see the Responsible Investment/ESG Policies of any providers you currently use and or are thinking of using so you can make sure their beliefs are consistent with your own, and that they are adequately considering sustainability risks

5

Adequately Document your Findings

Add an ESG section to your client files, if one doesn't already exist. If you discover your client doesn't have particular ESG preferences then note that down here anyway.

9. CONCLUSION: TOWARDS A MORE SUSTAINABLE WORLD

So, there you have it, a brief introduction to responsible investment in its many forms. We hope this has provided you with some useful insights into the terminology used, the ecosystem of providers, the characteristics and performance of this branch of investment as well as how regulation is going to make it much more pertinent to the day-to-day business of financial advice and retail investing in general. But, as this is a vast and fast-evolving field, there is plenty we did not have the space to cover but which we hope to do in future.

It's great to see how far the industry has already travelled towards being sustainable, but we're obviously nowhere near the finish-line. We need to keep up the momentum; the scale of the challenges we all face, particularly around global climate change, are truly staggering. We should remain hopeful though. It is often said the most important steps in a journey are the first ones. We have taking those first steps, even if the path ahead is still long.

PortfolioMetrix provides a range of responsible investment solutions for high quality advisers and their clients. These solutions include our Sustainable World portfolios launched in January 2017. If you'd like to learn more please get in touch using the contact details on the last page.

10. APPENDIX I: GLOSSARY OF RESPONSIBLE INVESTMENT TERMS

- **Active Ownership:** The use of rights and position of ownership to influence activities or behaviour of investee companies. For equities, this includes voting and engagement activities.
- **Best in Class:** Investment process that uses sustainability criteria to focus exposure on sector-leading companies.
- **Blue Bond:** A bond issued by governments, development banks or others to raise capital from impact investors to finance marine and ocean-based projects that have positive environmental, economic and climate benefits. They are inspired by the more familiar green bond concept.
- **Carbon Footprint:** The amount of Greenhouse Gas Emissions resulting from the activity of an entity, for example a company or group of people.
- **Corporate Social Responsibility (Or CSR):** A type of self-regulation, or even industry-wide or nationally enforced initiative, whereby companies elect to contribute to societal goals of a philanthropic, activist, or charitable nature.
- **Collective Engagement:** Form of engagement carried out alongside others. *See Engagement below for more details on engagement.*
- **Engagement:** Process of intervention to make sure the value of assets is enhanced over time or does not deteriorate through neglect or mismanagement. It is a particularly important part of responsible investment. *See section 2: Terminology, Stewardship for full definition.*
- **ESG:** Environmental, Social and Governance. Relates to the risks and opportunities faced by a business.
- **ESG Integration:** The systematic and explicit inclusion of material ESG factors into investment analysis and decisions. *See section 2: Terminology, ESG Integration for more details.*
- **ESG Investing:** An umbrella term for investments that seek positive returns and long-term impact on society, environment and the performance of the business. Hence often used as a synonym for responsible investment. Not to be confused with the more specific term 'ESG Integration'.
- **ESG Momentum:** Companies who are improving their ESG practises and hence ESG rating.
- **Ethical Investing:** Investment strategy where the portfolio holdings are aligned with the ethical values of the beneficiaries, usually through the use of exclusions (see below). Has in the past been used as a synonym for responsible investing (see below) although responsible investment is the broader concept.
- **EU Green Deal:** The EU's roadmap for making the EU economy more sustainable. Refer to: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en for more information.
- **EU Taxonomy:** European Union science-based body of work to create a taxonomy of environmentally sustainable activities. Environmentally sustainable funds will disclose what proportion of their portfolios are invested in taxonomy-eligible activities thus helping investors to ensure they invest in truly green opportunities.
- **Exclusions:** Prohibit certain investments by a firm, fund or portfolio. Exclusions may be applied on a variety of issues, including to align with client expectations. Sometimes also referred to as negative screening. *See section 2: Terminology, Exclusions for full definition.*
- **Fiduciary Role (Or Fiduciary Duty):** A fiduciary acts on behalf of another person or persons to manage their assets, and in that role, they owe a duty of good faith and trust to the entity and must exercise reasonable care, skill and diligence in investment decision making. In the course of their duties, the fiduciary must act in the best long-term interests of the entity which includes both responsible and legal considerations.
- **Friedman Doctrine (Or Shareholder Theory):** The theory that companies should be run primarily for the benefit of their shareholders, aiming only to maximise their returns. *See section 3: A Brief History of Responsible Investing for more details.* Friedman Doctrine contrasts with stakeholder theory, see below.
- **Green Bond:** A bond whose proceeds are ring-fenced for either climate or environmentally focused projects
- **Green Investing:** Investment strategy where investments are chosen based on their contribution to environmentally friendly solutions such as resource efficiency or clean water. Occasionally used more broadly as a synonym for responsible investment, although it is more specific to environmental rather than social issues.
- **Greenwashing:** A form of marketing spin, in which a false impression is given, or misleading statements are made, to persuade the public that an organisation's products, aims or policies are more environmentally friendly than they actually are. *See section 2: Terminology, Greenwashing for full definition.*
- **Impact Investing:** Investments made with the intention to generate positive and measurable social and environmental impact alongside a financial return. *See section 2: Terminology, Impact Investing for full definition.*
- **Natural Capital:** The stocks of renewable and non-renewable resources (geology, plants, animals, air, water etc.) that combine to yield a flow of benefits to people.
- **Negative Screening:** *See Exclusions above.*
- **Positive Screening:** Selecting investments on the basis of the positive environmental, social or governance impact of the product or service provided.

APPENDIX I: (CONTINUED) GLOSSARY OF RESPONSIBLE INVESTMENT TERMS

- **Positive Tilt:** Investment process which overweights investments that fulfil certain sustainability criteria and underweights others relative to an index. Differs from Best In Class, above, which invests only in the best ESG performers.
- **Responsible Investment:** Our preferred umbrella term for investing that considers ESG, aims to achieve a sustainability outcome and/or reflects a particular set of values of beliefs (other terms often used being Sustainable Investing, ESG Investing, Ethical Investing, Green Investing, Socially Conscious Investing or Socially Responsible Investing -SRI). *See section 2: Terminology, Responsible Investment for full definition.*
- **SFDR:** The European Union's Sustainable Finance Disclosure Regulation (SFDR), also known as the Disclosure Regulation, imposes new transparency obligations and periodic reporting requirements on investment management firms and financial advisers. It is due to come into effect in the EU in March 2021
- **Sin Stocks:** Investments in industries considered by many to be socially or environmentally undesirable. These typically include alcohol, tobacco, gambling, adult entertainment or weapons.
- **Socially Responsible Investing (Or SRI):** Investing that considers social and environmental impact alongside financial returns to bring about social change regarded as positive by proponents. Has in the past been used as a synonym for responsible investing (see above) although responsible investment is now more preferred.
- **Stakeholder Theory:** The theory that companies should be run for all those with an interest in the company which includes customers, suppliers, employees, and communities as well as shareholders, aiming to maximise returns to all parties. Stakeholder theory contrasts with Friedman Doctrine above.
- **Stewardship:** Stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. *See section 2: Terminology, Stewardship for full definition.*
- **Sustainability Focus:** Investments are chosen on the basis of their economic activities (what they produce/what services they deliver) and on their business conduct (how they deliver their products and services). *See section 2: Terminology, Sustainability Focus for full definition.*
- **Sustainable Finance:** Any form of financing that makes social and environmental considerations part of the decision-making process.
- **Sustainable Investing:** An umbrella term for investments that seek positive returns and long-term impact on society, environment and the performance of the business and hence often used as a synonym for responsible investment. Not to be confused with the more specific term 'Sustainability Focus Investing'.
- **UN Sustainable Development Goals (or SDGs or UN SDGs):** The goals are a blueprint set out by the UN to achieve a better and more sustainable future for all. The SDGs consist of 17 goals and 169 targets to address global challenges faced including those related to poverty, inequality, climate change, environmental degradation, peace and justice. *See Section 3: A Brief History of Responsible Investment or refer to https://www.un.org/sustainabledevelopment/sustainable-development-goals/ for more details.*
- **UN's Principles for Responsible Investment (or PRI or UN PRI):** United Nations-supported international network of investors working together to implement six aspirational principles set out by the UN that offer a menu of possible actions for incorporating ESG issues into investment practise. *See Section 3: A Brief History of Responsible Investment or refer to https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment for more details.*
- **Voting:** Process of shareholders voting on proposals put forward in company general meetings and a key part of being an active investor. Examples of proposals include changes to board members, remuneration and company policy.

11. APPENDIX II: PORTFOLIOMETRIX & RESPONSIBLE INVESTING

PortfolioMetrix is a discretionary investment manager working with advisers for the benefit of our mutual clients. We have a Responsible Investmtent Policy which we invite you to read in full, but in summary:

At a firm-wide level, PortfolioMetrix believes in, and adheres to, the principles of Stewardship. And although we don't practice any firm-wide exclusions, we do seek to integrate ESG (Environmental, Social and Governance) considerations into our investment process.

This means that for all our investment approaches we commit to:

- Evaluate the responsible investment policies and processes of the funds we use in client portfolios and those we are thinking of using
- Use only those funds who demonstrate adequate levels of Stewardship
- All else equal, prefer funds who demonstrate better levels of ESG integration in their investment processes

For clients who want to further increase the positive social and environmental impact of their investments, we offer our Sustainable World approach.

The Sustainable World Portfolios

The Sustainable World portfolios hit their three year track record in January 2020, having delivered net of fees risk adjusted returns in excess of the MSCI ACWI over the period. They aim to meet client financial goals whilst also explicitly helping drive positive social and environmental change. Very simply, the approach expands on the responsible investment strengths of our Core portfolios by incorporating where possible funds that:

- Focus on companies that deliver a clear positive net benefit to society and the environment
- Focus on sustainability of product, service and operations when selecting companies to invest in
- Seek to improve the behaviour to the companies they invest in
- Exclude industries and specific companies with negative social or environmental impacts

The relationship between the PortfolioMetrix approaches can be viewed through the PortfolioMetrix Spectrum of Responsible Investing as follows:

Figure 7: The PortfolioMetrix Approaches

* PMX Enhanced Indexing would also fit here, **PMX Income Orientated and PMX Absolute Oriented would also fit here
Source: PortfolioMetrix, adapted from Bridges Fund Management's Specctrum of Capital and The IA's Responsible Investment Framework

For more information contact:

United Kingdom

66 Buckingham Gate London SW1E 6AU

+44 20 7965 7533

info@portfoliometrix.co.uk

or Dave Chessell on dave.chessell@portfoliometrix.co.uk / Ben Peele on ben.peele@portfoliometrix.co.uk

Ireland

66 Fitzwilliam Square East Dublin 2, D02 AT27

+353 1 539 7244

info@portfoliometrix.ie

or Mark Bradley on mark.bradley@portfoliometrix.ie

South Africa

Corner Main Office Park Payne Road, Bryanston

+27 010 448 1400

info@portfoliometrix.co.za

or Edden Kift on edden.kift@portfoliometrix.co.za / Allan Geddie on allan.geddie@portfoliometrix.co.za /

Kirsten de Wet on kirsten.dewet@portfoliometrix.co.za

portfoliometrix.com