CONFERENCE

The Future of Responsible Investment

New frontiers

In partnership with Columbia Threadneedle Investments, expert panellists discuss how data science and artificial intelligence will transform responsible investment and how investor demands have morphed from excluding "bad" companies to delivering tangible and sustainable impacts

In partnership with COLUMBIA THREADNEEDLE INVESTMENTS

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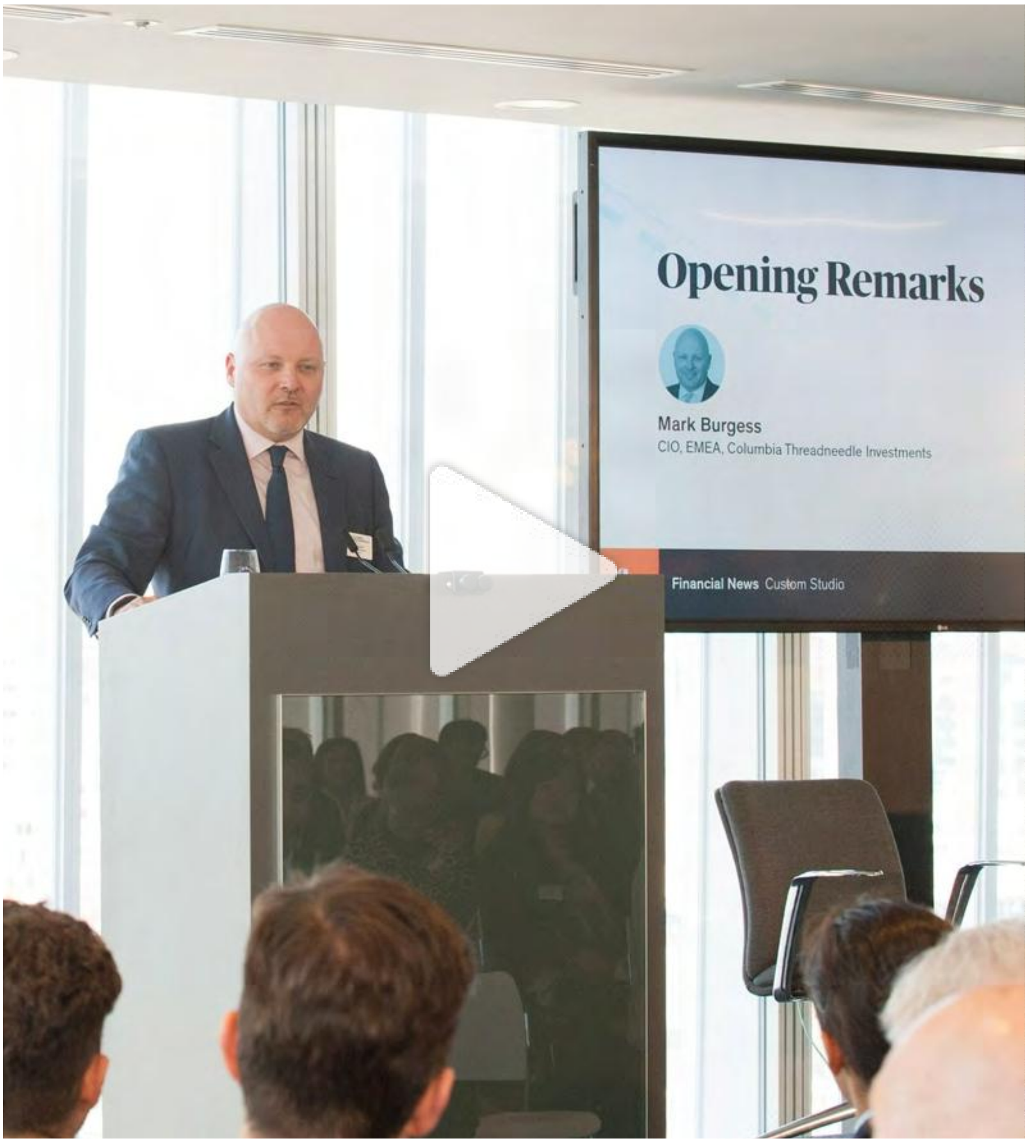
Opening Remarks
Why responsible investment has the power to move us forward

Responsible investment has evolved far beyond a pure box-ticking exercise for asset managers, says **Mark Burgess, CIO EMEA, Columbia Threadneedle Investments**. And crucially, Columbia Threadneedle's data shows that it's an active contributor to financial returns



"Asset management has evolved significantly in recent years - and the way we analyse companies has evolved too. Several recent studies and surveys show that most European institutional investors believe the integration of sustainability risk is either already important, or will become more important in the future. Globally, the UN Principles of Responsible Investment (UNPRI), of which we were a founding signatory, has grown significantly in recent years, with more than 1,400 asset owners and asset managers committed - a number that increased by an impressive 16% in 2018 alone.

So what's driving this growth? First, thanks to a number of critically important studies that have analysed the correlation between corporate financial performance and ESG integration, it can now be empirically shown that ESG integration is not detrimental to financial performance, but can in fact be additive.

Second, there is a clear generational shift taking place in the industry, with younger investors keen to see their capital invested responsibly. This has meant that many private banks and wealth managers are building ESG product platforms and positioning their products for the great transfer of wealth from Baby Boomers to millennials in the years to come.

Third, the global regulatory agenda has undeniably led to a gearshift in the focus on responsible investment. This has taken the form of industry-specific regulation such as disclosure requirements for stock exchange listings, voluntary regulation such as the UNPRI and the UN Global Compact, plus government-led regulation.

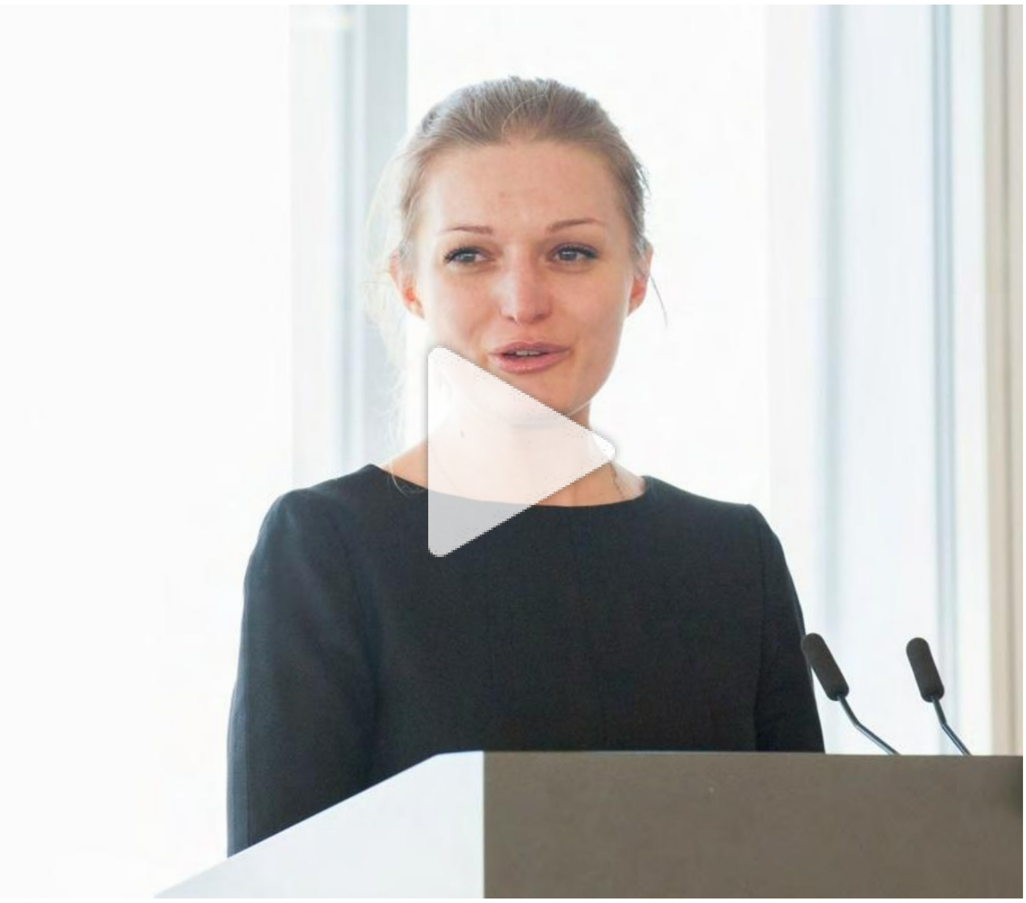
But the main reason is the need to be able to properly analyse the sustainability of a company's financial performance. When we assess companies and their securities, we need to be aware of - and factor in - all risks and opportunities. If we do not factor in how a company's management team is incentivised, its place in the community, or its environmental impact, then we are failing to properly assess all the risks that are a part of the investment process.

As asset managers, we're privileged to be guardians of investors' capital and to deploy that capital in robust businesses with sound management teams - and in those that move us forward, not set us back. That's why we've invested significant amounts of resource in building a proprietary quantitative ratings tool to enhance the insights of our fund managers, who look at the critical ESG factors for more than 5,500 companies globally. And it's why we've invested in doubling the size of our dedicated global responsible investment analyst team over the past two years, empowering them to work alongside the fund managers and to engage with the companies we invest in."

Mark Burgess
CIO EMEA, Columbia Threadneedle Investments

Cambridge Associates ESG Survey
The three megatrends driving the stellar rise of ESG investing

As institutional interest in responsible investment continues to grow, **Lydia Guett, ESG Investment Specialist, Cambridge Associates** dissects the key drivers behind its popularity



"As a global investment firm working with endowments, foundations, pension funds and private clients, we help investors to build customised portfolios, generate outperformance and maximise impact along the way. Many of our clients look at ESG strategies because they align with their mission and values, and with those of their stakeholders and beneficiaries. So what are the key drivers of ESG investing? We're currently seeing a number of key trends, which we believe are directional and non-mean-reverting.

The first key trend is a change in the way foundations think over recent decades: investors are shifting their focus from seeking to maximise returns for their endowments towards scrutinising their investments to see if what they own actually aligns with their values.

The second key trend is a generational one. Looking at families, the next generation is changing the game: they want to know that every one of their investments is perfectly aligned to their personal values. They are asking difficult questions, they are challenging their parents and they are challenging advisers - something that has had a huge impact on the investment discussions we have with our clients.

The final key trend is the influence of pension funds. The Pensions Regulator has now made it mandatory for pension fund trustees to consider non-financial - but financially material - ESG factors, such as climate change, in their investment decision-making.

Of course, it's not only the client side and the demand side that has evolved, but also the supply side. We have seen the initial start of impact investing and sustainable investing, where investors excluded the negative: the bad performers, and those with negative and controversial business practices. We then moved to leaning into good companies: looking into clean energy and sustainable agriculture, but we now see a huge shift to a new way of thinking. It is now about thinking differently about a new investment universe - that is where the alpha generation will be and we are very excited about this trend.

> **"The statistics paint a clear picture: investor demand for ESG strategies is increasing and that demand is going nowhere fast"**
>
> **Lydia Guett**
> Cambridge Associates

While ESG investing is undoubtedly enjoying a stellar rise in its fortunes, it's worth sounding a note of caution. One caveat is that the market is booming, which means that almost every manager is claiming that ESG factors are fully integrated into their investment strategies, and that they have a long track record in the space. However, it's very important to tread carefully here and ask some searching questions: does the manager understand what is material? How do they look-through? What is their risk profile? These are all key considerations when building an ESG-focused portfolio.

The statistics paint a clear picture: investor demand for ESG strategies is increasing and that demand is going nowhere fast. That's why it is so crucial to work with a manager who understands how to pinpoint and understand the materiality of the risks and opportunities involved. Finally, ESG data itself is evolving, so it is vital to stay ahead and stay tuned into developments in the space, particularly when it comes to helping clients sidestep the emerging jungle of 'impact washing', strategies that is starting to rear its head in this fast-growing marketplace."

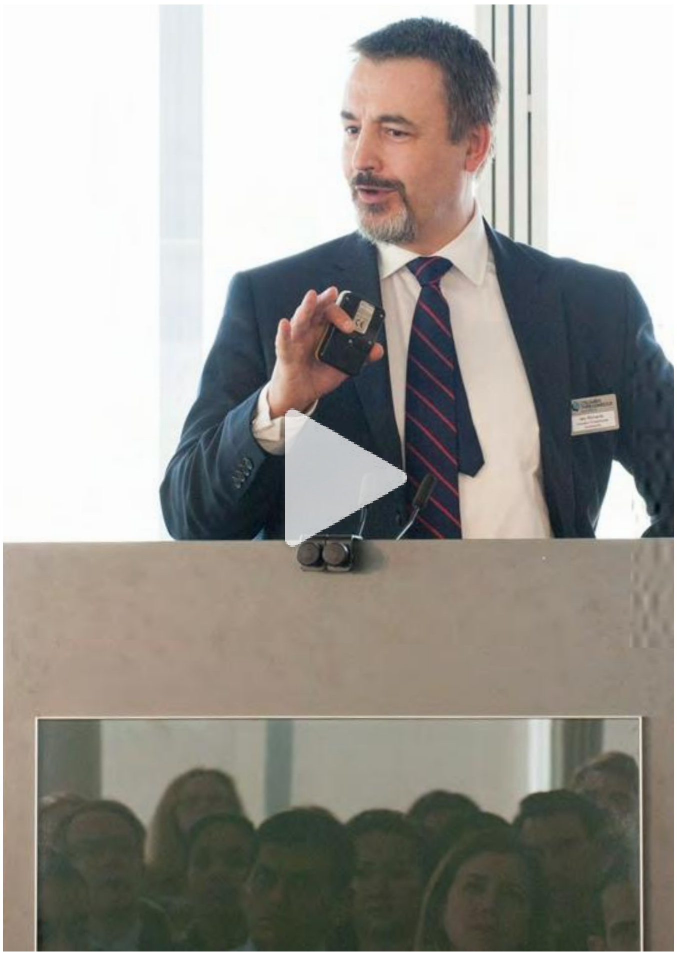
Lydia Guett
ESG Investment Specialist,
Cambridge Associates

Panel Discussion: Data Science
The tectonic shifts reshaping our industry

In a data-driven world where 5 million exabytes of information are produced every single month, this panel takes a closer look at the potential - and the pitfalls - of using data science to analyse companies' ESG credentials

"We are currently seeing a real convergence of evolving technology and evolving attitudes and interests in responsible investment, and that convergence is leading to seismic changes in the shape of our industry. But first, it's worth thinking about how innovation has changed this industry over time, from the stock market tickertape used from the 1800s right up until the late 1960s, to the carrier pigeons that represented a faster way of communicating than riders on horseback. We are now entering an era of fundamental change in the industry: in the 1980s, we had the Big Bang, the move to telephones, the launch of the first main email service in 1989, and electronic settlement on the LSE in 1996. We've been going through a period of dramatic change and we're on the cusp of the next generation of this change. Microsoft Excel and Word will not be fit for purpose in the financial markets for much longer: they are incapable of handling the changes that we're seeing coming down the pipeline. And that will change the face of responsible investment and the capital markets.

While traditional investment is focused very much on financials, the world is changing and there's now a whole raft of additional information that's becoming critical in financial markets. As markets have become more efficient, traditional financial metrics have lost their signalling power, as have traditional academic models. New sources of information are becoming very important, in line with changing social attitudes.



So what comes next? Clearly, just switching to plug-and-play responsible investment doesn't work. A simple correlation analysis between two of the biggest ESG service providers in the market shows that their ratings are uncorrelated: they don't give you actionable signals. There are all sorts of reasons for that, but for a functional, investment-driven focus, taking off-the-shelf solutions does not give you the answer you need because it does not work. We've heard many times that ESG adds value to investment: it does, but only if it is done in the right way.

We live in a world of data where five million exabytes of information are produced every month: that's three million times the information in every book that's ever been published. More shocking still, just 0.5% of that data gets analysed. As we move into a world of broader, non-financial analysis, it is critically important that we understand how we get to grips with that.

Data analysis is becoming ever more important. Traditionally, analysts have collected data, putting them into spreadsheets and models and analysing it. And actually the amount of time that's dedicated to creating actionable insights is lost because of all the work inputting and maintaining spreadsheets. What data science offers is the ability to change that - to automate and collect data and focus on extracting decision-useful information from that analysis. But the problem is that we have either too much information or not enough. To give it shape, the industry needs the tools to be able to manage that properly. Cloud computing is scalable, plus it enables you to have really adaptable, live, changing analytics. But that in itself is not enough: it needs to have purpose.

For us, the Sustainability Accounting Standards Board (SASB) is the framework that allows us to focus on what material ESG factors are. Enhanced ESG analytics are giving us focused analytical capability that's timely and can be quantified in backtesting. It's evidence-based in the way we approach and use it. Does that make a difference? We believe it does. The transition from an old framework of information to this new, very dynamic, context is challenging. Organisations will have a hard time in making that transition. The best projects out there have had people dedicated to understanding behavioural finance and economics to make it work well.

This is the challenge we face: the world is changing seismically and whether it's responsible investment or other areas of investment, technology and this change is going to be a fundamental part of whether it works well or not. To put it into context, we have more than 250 million datapoints being used in our responsible investment analytics - and there's not a spreadsheet in the world that can come close to handling that. That's the scale of the challenge we are dealing with. It holds huge prospects for the future - for responsible investment and beyond."

Iain Richards
Head of Responsible Investment, Columbia Threadneedle Investments

"Enhanced ESG analytics are giving us focused analytical capability that's timely and can be quantified in backtesting"

Iain Richards
Columbia Threadneedle Investments

Panel Discussion: Data Science
The tectonic shifts reshaping our industry

Moderator
Francesco Guerrera
Financial News

Panel
Ajeet Manjrekar
River & Mercantile Solutions
Russ Bowdery
Aviva
Honor Fell
Redington
Emma Hunt
St James's Place

Francesco Guerrera
"What problems can data science help to solve in the next five to ten years?

Emma Hunt
"Data science per se won't solve any of the problems we've got now. There are so many datapoints out there; we live in an incredibly interconnected world. We can't tell how a labour strike in one part of the world will affect a garment manufacturer in Bangladesh. But we won't be able to do that in the next five years. First, we need a period of learning and experimentation of the tools and the AI to understand the complexities of interconnectedness and how it could affect a business. Data science could help with that, but we've got quite a painful learning and experimentation process to go through first.

Francesco Guerrera
"Could data science help us get to a point where a customer can personalise their investment portfolio?"

Honor Fell
"It's possible, and it would be really exciting to see that happen. There's definitely a couple of companies in the US that are working on that type of solution - enabling clients to create their own personalised index fund - and they're also trying to also to overlay proxy voting by individuals. This could also solve some of the issues we have around the values of individual beneficiaries and map that onto what a pension fund needs to provide for all the investors within a default fund. That's a different conversation to an asset manager using this kind of data for a risk-return decision, but I think personalisation for individuals is definitely something we'll see in the future."

Emma Hunt
"Some of these models rely very strongly on robo-advice. So can data science within the institutional and retail investment world begin to change business models, which can then support personalised advice? Yes, I think they can. But what if we lose all the other investment advice that gets layered on top of that? It is important not to move ahead too quickly."

Francesco Guerrera
"Russ, do you share that concern?"

Russ Bowdery
"It's a valid point. First, in the next year or so, there is some investment regulation coming in that says advisers must ask clients about their attitude to these sorts of issues, so it does get factored in. Second, data science is not a panacea: it's a tool that helps you deal with vast amounts of data and condense it down into something that a human can make sense of. It's a model of the big wide world, so to the extent that over the next five to 10 years it becomes better at helping us do that, then the future looks brighter. But we have to remember that there's still a customer at the end of the loop, and our research shows that many clients are interested in ESG-related products but have no idea how to go about investing in them. Part of our challenge is making sense of how to engage with them."

Ajeet Manjrekar
"I think one of the biggest challenges for asset managers

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is one of scalability. I don't disagree on the notion of personalisation, and ultimately, technology will facilitate ever-greater personalisation. But at the same time, making ESG more mainstream is the first step towards achieving scale and gaining the ability to overlay customisation on top of strategies."

Francesco Guerrera
"So what would pension fund trustees perspective want from asset managers when it comes to data science?"

Honor Fell
"We've had some interesting conversations across the whole of our clients this year following the DWP's change to the investment regulations, which is asking every trustee and board to make sure they have a policy on ESG where they are financially material risks. When we asked our clients how they wanted to take the ESG conversation forward, a significant number of them want to manage and measure those ESG risks, so reporting is crucial for them. I'd expect to see that decision-useful reporting data driving changes in asset allocation and fund selection on the back of that going forward."

Iain Richards
"From a trustee standpoint, one of the biggest challenges - whether you're a pension fund trustee or on a board - the really important question is where you are going from here, not where you are now, and how do you use information like this to facilitate this? One thing the regulator is very focused on is integrated risk management and how schemes are thinking about their covenant and not just their investments. This is a broader strategic question that we should be putting on the agenda today."

Francesco Guerrera
"How can data science help asset managers to make sense of the barrage of information they're faced with?"

Iain Richards
"It's all about the trend and how it's evolving from where we are now. What's driving that change and what am I going to do about it, whether I'm an individual trustee or an investment manager?"

> "Data science definitely represents a real competitive advantage"
>
> **Russ Bowdrey**
> Aviva

Honor Fell, Lead for Responsible Investment, Redington (left) and Emma Hunt, Head of Responsible Investment, St James's Place (right)

Francesco Guerrera
"Have you seen data science work well or badly for asset managers?"

Honor Fell
"Most of the managers we've talked to are using data science in the way that they collect data that then goes into their models; they're not using machine learning yet to make the investment decisions or to drive decision-making in the model. I saw some really interesting research earlier this year which was saying that the annual spend on ESG data is increasing by 37% every year, so the amount of data that asset managers are trying to get their hands on is huge. We think it's very important that there is a robust discussion about the usefulness and the pitfalls of that data. We use data from a specialist ESG provider to have a conversation with an asset manager and say "do you recognise this ESG risk or opportunity within your portfolio? What different data sources do you use to analyse that position?"

Francesco Guerrera
"If everyone is doing data science, where's the competitive advantage?"

Russ Bowdrey
"Data science definitely represents a real competitive advantage. As an insurer, we're very exposed to climate change risk, for example, but also we invest the premiums that we're given and for, say, your pensions when you retire, that could be a 30-50-year investment. That puts us way into the tail of climate change potentially going very wrong, so by getting ahead of the game and getting it right now, we create a competitive advantage against those who don't."

Panel Discussion: Impact Investing
The burning platform setting impact investing on fire

When it comes to impact investing, lack of education and awareness continue to represent barriers to adoption. But there's never been a better time to explore the power of impact investing to tackle these issues head on

Moderator

Francesco Guerrera
Financial News

Panel

Lord Victor Adebowale
Enterprise UK & Turning Point and member of The House of Lords
Rose Beale
Columbia Threadneedle Investments
Jamie Broderick
Social Impact Investing Implementation Taskforce
Gavin Rankin
Citigroup

Francesco Guerrera
"There's a lot of confusion when it comes to the definition of impact investing and ESG. So what's the real difference?"

Lord Victor Adebowale
"My research tells me that impact investing is "investment made into companies, organisations or funds with the intention to create measurable benefit - social or environmental - alongside a return." And I would argue that ESG is a subset of impact investing."

Jamie Broderick
"We would distinguish between ESG and impact investing in that we'd define social impact investing as investment in an organisation that is specifically committed to generating a positive impact - and that is unusual in listed companies like those that typically form part of an ESG portfolio."

Rose Beale
"A further distinction we would draw is that traditional ESG investing and metrics are about risk discovery - understanding the risks and opportunities within a business, particularly in terms of its operations, the quality of its leadership and its long-term prospects. So you can understand purely from a financial perspective how ESG factors are impacting a company now. With impact investing, we're focusing more on the outputs of that company and the resulting impact that that company is having on the world. One example might be a renewable energy provider that helps to fight climate change versus a tobacco provider, whose products have a negative impact on society."

Francesco Guerrera
"Rose, can you give us some examples of where you've seen impact investing work?"

Rose Beale
"We run several socially-focused bond mandates. The UK one has been going for five years - quite an established track record in this space - and more recently we launched a US and a European strategy. We're now looking at equities as well, through our Global Sustainable Outcome Strategy, for example. These strategies look at areas of social impact, but also at financials: how do we actually look for investible organisations within this? So we are balancing yield, liquidity and social impact to create a portfolio that is robust and diversified.

Impact investing is actually quite a broad church, but if you invest in social bonds - as we do - you want market returns and you won't settle for anything less. Why isn't the private sector more involved in social housing? Social housing is one of the key outcome areas for our social bond funds and we invest very heavily in that sector, which has been one of our top overweights for a very long time. So we are seeing social housing providers come to market through a variety of platforms, whether it's through ringfenced social bonds or through a retail charity bond platform, which specifically enables large-scale charities with appropriate

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assets to secure first-time financing through the bond market."

Lord Victor Adebowale
"I'm curious about the term "social housing", because it's often confused with affordable housing, which represents 80% of market rent purchasing and is not actually that affordable for people even on medium incomes. Social housing is designed for people who really need it and I would have thought that the returns on social housing are actually quite significant because of the demand, particularly in the southeast. And yet there's a trickle of social housing. The outcome of that investment should be that you walk through London and you don't see homeless people on the street, so I'm curious about the dynamic between the investor's interest in social housing outcomes."

Jamie Broderick
"I think there's plenty of money for housing. The housing association sector has no trouble raising money in the market. The question is how you point it at the more urgent social issues."

Francesco Guerrera
"What's the benchmark for this kind of fund?"

Rose Beale
"Other than pure financial return, we're also measuring social and environmental return. I've just helped create our first European Social Impact Report, and for that we managed to source data not only on greenhouse gas emissions saved through some of our green bond investments, but also on the amount of money allocated to global health priorities, the number of new jobs created through social impact bonds, the number of social houses created through that investment. So we're using a wide variety of metrics to illustrate the plethora of positive social and environmental outcomes in this space."

Francesco Guerrera
"Jamie, is that consistent with what your Taskforce is aiming to do?"

Jamie Broderick
"Yes, and there are certain areas where risk and return are easier to measure than others, but once you move into social impact outcomes, it becomes much more difficult. I'd say that's because this area is in its infancy, and each individual issue has its own particular metrics. That's true on the environmental side too, where it's easier to measure CO2 emissions, but measuring things like pollution, air quality or run-off is much harder."

Francesco Guerrera
"Lord Victor, is there an opportunity here?"

Lord Victor Adebowale
"I don't think we've got any choice: if you just look at the environment and you think about the IPCC's assessment that we've effectively got 12 years, then it would be a good idea to start now. One of things that I'm concerned about is that we shouldn't let "excellent" get in the way of the "good enough". Just as we have measures for what we might call "normative investment" or "irresponsible investment", depending on which newspaper you read, none of those measures are perfect either.

So the question is: what is good enough in order for us to make responsible investments? The opportunity is massive. I understand that in 2000 in the US, the responsible investment market was $50 billion; nine years later it was $500 billion. What's more, the next generation isn't going to tolerate what we do, so it means that the opportunity is exponential. That next generation will be the ones deciding what's viable and what isn't."

> **"When it comes to impact investing, we shouldn't let the pursuit of the 'excellent' get in the way of the good enough'"**
>
> **Lord Victor Adebowale**
> CBE

Gavin Rankin
"I think typically when you start something new, education and awareness are the biggest obstacles - the "known unknowns". ESG is the area with the opportunity for the greatest and most rapid growth, but I do think you need to establish that tipping point. We've seen that happen in different countries - like the Nordics and other European countries - but I don't think we're there yet in this country. I think there will be far bigger challenges on the impact side because if you compare it to established forms of investing, it's most similar to venture capital investing, where the risk is greatest and the opportunity is often micro in terms of the investments. So the biggest challenge that impact investing has is finding high-quality, established managers who are able to deliver effectively against mandates. That will come with time, but we're probably still a few years away from that point."

Lord Victor Adebowale, Enterprise UK & Turning Point and member of The House of Lords and Rose Beale, Analyst, Columbia Threadneedle Investments

Francesco Guerrera
"What can be done to make this area more accessible for investors?"

Rose Beale
"I'd like to add a note of hope when it comes to scale and the ability of public markets to bring something to this. Just take a look at the ringfenced green and sustainability bonds, where you know that the proceeds are being used for new projects like wind farms, renewable or social projects - whether that's social housing, elderly care or education. Then there's sustainability bonds, which are a mixture of both, and have only been on the scene for around 10 years, but together these bonds already represent 1.5% of the total bond market. It's not a huge number, but it's a significant one that allows us to get to scale in public markets."

Lord Victor Adebowale
"I think what we're looking at here is a burning platform - and that burning platform is built on a widespread unease with institutions. There's a sense of inequality, not just in normal life, but in financial data - and that's only getting worse. It's not just the environmental impact that's becoming more and more noticeable; we now have school kids going on strike to protect their own future - a trend that will only accelerate. In other words, I think the social shocks will come well before the environmental experiences. So I think that's a burning platform: for the first time, we have a generation that is going to be poorer than the generation before it."

Further Information

Columbia Threadneedle's Proprietary Responsible Investment Ratings

As an active manager, it's our duty to consider factors that can pose a risk to or enhance client assets. We have added to our extensive fundamental research effort by launching an innovative responsible investment (RI) ratings system that combines an assessment of a company's financial stewardship with a view on how well it manages its Environmental, Social and Governance (ESG) risks.

By combining both aspects into a single, forward-looking company rating from 1 (the strongest) to 5 (the weakest), this proprietary tool reflects our conviction that prudent management of financial and ESG factors is important to a company's ability to create long-term, sustainable value.

Utilising data science and cloud computing, the RI ratings provide our global investment teams with a more robust responsible investment framework and enhanced analysis of over 5,500 listed equities across the world, to complement existing fundamental analysis.

To read more on Columbia Threadneedle's Proprietary Responsible Investment Ratings click here

The UN Sustainable Development Goals (SDGs) and our Themes

Translating the UN SDGs to investment opportunities provides us, our clients, and the wider industry, with a compelling means to contribute to sustainable development while aiming to achieve positive financial returns.

Find out more about the UN SDGs and Columbia Threadneedle's sustainable and social themes click here

Columbia Threadneedle Investment Strategies

- Social Bond Strategies
- UK Ethical & Sustainable Strategy
- Low Carbon Workplace Strategy

For more information on Columbia Threadneedle's investment strategies visit columbiathreadneedle.com