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FOREWORD

It is clear that successful organizations will need to redefine their business models if they are to continue to prosper in this very different world. Those who find ways to use natural resources in a sustainable way, and whose purpose is defined by the contribution they make to society, will find themselves uncovering new sources of innovation, reducing their risks and increasing their competitive advantage.

Our economic prosperity – and future financial success – is dependent on a thriving society and a healthy planet. The reality is that environmental and social risks have a direct bearing on the sustainability of returns that can be generated. That view is gaining ground.

The pressure to deliver financial returns in the short term can, however, make it seem challenging to respond to issues such as climate change, the full consequences of which will only be felt in the future. And yet the actions we take now are the ones which will determine that future.

A growing number of leaders from each part of the investment chain and wider capital markets community are taking action to direct finance towards sustainable outcomes. It is only through collective leadership, reconnecting with individual savers, investors and beneficiaries, who overwhelmingly want their money to be directed towards creating social good and tackling environmental challenges, that we will find solutions to the barriers which remain.

I would like to thank those who generously devoted their time to participate in the A4S Finance Leaders' Summit hosted by The Prince of Wales in July, and whose insights we have sought to capture in this report. I hope that the examples and recommendations set out in the following pages will provide additional inspiration to act.

As His Royal Highness has said, "There was a time when we could say that there was either a complete lack of knowledge, or at least room for doubt, about the consequences for our planet of our actions. That time has gone. We now know all too clearly what we are actually doing and that we need to do something about it urgently. Better accounting must be part of that process."





FOREWORD



Dr Steve Waygood Chief Responsible Investment Officer Aviva Investors



Business can and should be a significant force for good on the planet. Capitalism does not always get it right, of course, and businesses are not blame free. But economic growth created by business and private finance have contributed to increasing global life expectancy and falling poverty around the world. When governments provide an effective, efficient framework, companies can change the world for the better.

The challenge for all of us is how to harness the power of the markets so that people can benefit without undermining the environment upon which we all depend. We need to make sure the interests of individuals and organizations are aligned with the interests of society and our planet.

This document demonstrates the extent to which the current financial system's regulatory incentives are undermining investments for the long term and contributing to an unsustainable future.

There is currently a market failure whereby a company's sustainability is not reflected in its balance sheet, valuation or cost of capital. We first drew attention to this in our 2014 Roadmap for Sustainable Capital Markets, and have subsequently developed the work in a UK, EU and global context in various reports. I have been honoured to have been part of many groups that have aimed to put some of this work into practice in the global economy, such as the FSB's Task Force on Climate-related Financial Disclosures and EU High-Level Expert Group on Sustainable Finance.

The recommendations here consolidate and build on much on that work, and if implemented would allow governments, investors and regulators to do something about that market failure. There is a role for all actors in the system to play, and for convening groups like the U.N., G7 and G20 in bringing global players together to agree norms and share approaches.

I hope that by providing a practical guide for each part of the system, this document, and the event it accompanied, can act as a catalyst for change; and I thank His Royal Highness The Prince of Wales for his vision and leadership in bringing it together.

A SPEECH AT THE A4S FINANCE LEADERS' SUMMIT



Ladies and Gentlemen, I am sorry for interrupting your deliberations; you're probably getting on far better without me here! Looking around, looking at the list of people who are here today, I see that in fact quite a lot of you have had the misfortune of coming to one or two dinners at Clarence House over the last few years and more of these A4S gatherings. I feel rather dreadful about inflicting yet further pontification on you, but you're getting used to it by now! Above all, I really wanted to welcome you to St. James's Palace and to thank you, again, for taking the time out of what I know are your astonishingly busy diaries to be here. From what I hear about everything, you have been made to work rather hard already today, but I am afraid to say that I am just going to take up a few more minutes of your time, if I may...

Before I go any further, I just want to stress – if it isn't already blindingly obvious to most of you by now! – that I am not, repeat not, a financial expert, particularly regarding capital markets and sustainable flows of investment. However, I am reliably informed that in this room we have an impressive list of leading figures from across the investment chain. I am therefore convinced that we can agree some hugely effective and concrete actions to take away from today's sessions.

Now as I am sure you are all only too aware, we are facing – as some of you have heard me say, over and over again, a truly terrifying combination of risks. Man-made climate change and global warming appear to be having a growing impact on extreme weather events, such as the devastating hurricanes, the cyclones, storms, droughts and floods we have seen in all corners of the world, many of which I have found myself visiting afterwards, in the aftermath of these terrible events. I was in the Pacific back in April, visiting Vanuatu - again, they had a horrendous cyclone there and the same in all sorts of different parts of the world. In November last year I was in the Caribbean visiting those very devastated islands, and of course the real worry about all these things, as you probably know better than I, is that the moment the sea temperature gets above 30 degrees centigrade, then it starts to engender this terrifying build-up of these ever more extreme and deadly hurricanes. So all over the world, we're facing these huge, huge threats. Will it be possible for people to go on living in the Caribbean or the Pacific, and on these islands soon, if we don't actually expedite the necessary action? Which is why, Ladies and Gentlemen, you are all of such enormous importance if all these disasters are causing appalling human suffering, and of course ever-increasing economic damage.

Which is another reason why, quite some years ago, I asked if it would be possible to have some of the insurance sector to lunch – they didn't really like it at the time! We had an interesting conversation and everybody sat furiously, with their arms folded, which I've got used to over the last 40 years, but the great thing was they went away and thought about it. And by thinking about it and engaging with each other, we gradually developed what became known as Climatewise. It seemed to me anyway at the time, and I hope you feel more and more so, that the insurance sector plays a vital role in all this, in dealing with the huge challenges we face.

Of course, on top of the economic damage, you end up with the severe risk of increasing conflict and mass migration caused by all these disasters. So as we sit here - I was going to say sweltering, but it still is pretty

hot - in St. James's Palace – yesterday would have been horrendous - we are all now, I hope, more aware of the current unseasonably high temperatures affecting not only Britain, but also many other areas of the World. You can't go on having record extremes of weather every year, without wondering, perhaps that we're destroying the entire equilibrium of the natural systems. We are also, on top of all this, responsible for a devastating plague of plastics in our Oceans, the mass extinction of both aquatic and terrestrial flora and fauna on which we depend, as well as unsustainable population growth and increasing inequality.

However, in spite of these persistent and ever-growing risks, it can be all too easy to forget the basic truth that no economy, at the end of the day, can thrive indefinitely without a stable society and a healthy, natural base to sustain it. All financial capital, when you think about it, ultimately relies entirely on the natural and of course social capital assets that underpin its existence and enable it to grow. We seem to have forgotten this somewhat "inconvenient truth" and will pay dearly for it unless we change our ways...

Indeed, according to the World Economic Forum, in 2018 eight out of the top 10 risks facing the global economy are environmental or social in nature, with a changing climate acting as a key driver linked to many of these risks. And, as I have tried to say so often over the years, the economic consequences of not achieving a sustainable future, and for that matter, a circular economy, rather than a linear one, are vast. A 2015 Economist Intelligence Unit study found a future scenario of 6 degrees warming represents present value losses worth 43 trillion of U.S. dollars, or 30 per cent of the entire stock of manageable assets, and that is without even taking into account the fact that it is increasingly doubtful such a rise is endurable. Perhaps this is why central bankers and asset-managers are now amongst the most trenchant voices asking for more action on climate change. On the other hand, however, it has been estimated that achieving the U.N. Sustainable Development Goals will open up 12 trillion U.S. dollars of market opportunities by 2030. That's not a figure to be ignored!

The finance community – as I have often tried to indicate many times before – has much to gain, or indeed to lose, from these opportunities and risks, and so must be part of the response. Finding innovative ways of driving investments that will value and support the environment and society is an urgent necessity, with pension funds and other asset-owners key to directing capital towards genuinely sustainable outcomes. But it would seem that not enough of the finance community are prepared to take the first step and, as it were, "jump ship" in order to do the right thing... This is why, if I may say so, my A4S project, with the kind support of Aviva and H.S.B.C., has invited you all here today, and has produced a research report which contains recommendations for each link in the investment chain.

Now, I am heartened to learn from this report that some important actions have already been taken. For example, on the asset-owner side, H.S.B.C. has constructed a climate-tilted fund with Legal and General Investment Management as the default option for their defined contribution pension scheme, while Japan's Government Pension Investment Fund, the world's largest pension fund, will shift roughly 8.8 billion U.S. dollars into E.S.G. indices. On the asset management side, Aviva Investors was the first to state it would vote against companies based on whether they disclosed against the T.C.F.D. recommendations.

And of course, Ladies and Gentlemen, companies are playing their part as well. For instance, I am delighted to hear that several members of my A4S C.F.O. Leadership Network have launched green bonds – from Anglian Water and S.S.E. in the U.K., to Manulife Financial Corporation and Brookfield Asset Management in Canada. And on top of that, there is growing interest in social and sustainable bonds. For example, H.S.B.C. recently issued a corporate S.D.G. bond to raise one billion U.S. dollars. It is this sort of innovation in products and services which will allow us to "shift the dial" and put our society and economy onto a sustainable trajectory. And of course, countries are also taking action. In this regard, I was most interested to learn last year about the

launch of Malaysia's first green Islamic bond. But despite the increase in sustainable finance, a very great deal more is required. The World Investment Report highlighted that global investment of between five and seven trillion U.S. dollars per annum will be needed to support delivery of the S.D.G.s, the majority of it in developing countries, and much of it in infrastructure. So I can only hope that far more organizations will be inspired by the innovation of these and other leaders to make up the shortfall...

So, Ladies and Gentlemen, as you can see, there has been some reasonable progress made in delivering sustainable finance. However, as I have already said, there is much, much more that can, and clearly must, be done. We are far from a situation where everyone acts positively and at scale to address sustainability challenges. According to the most recent O.E.C.D. survey of large pension funds, for instance, most funds still allocate less than one per cent of their total investment towards green investments. This will get us nowhere – and as so many of you here in this room have demonstrated, aligning your investments towards sustainable outcomes does not have to come at a financial price. For this reason, I am most encouraged to see the research report developed by A4S and Aviva which builds on recent work by groups such as the Social Impact Task Force, the Green Finance Task Force, the High-Level Expert Group on Sustainable Finance, and, of course, the F.S.B. Task Force on Climate-related Financial Disclosures.

At the risk of sounding like a stuck vinyl record, which I'm glad to say may have come back! – or a scratched old C.D. - drive me mad! – I must urge you therefore to think about what more you might be able to do to accelerate progress. I hope that – with all of your intellectual firepower and influence – you might be able to identify solutions to overcome those barriers that are so frequently highlighted as a reason for inaction. And this is one of the, I think, important aspects of this gathering, if I may say so, is trying to find the best way – how on Earth do you overcome these barriers fast enough to make a real difference. So Ladies and Gentlemen, I do look forward to hearing the results of your discussions today, shortly, and of the real, tangible actions that you might personally commit to take, which I hope you will. And of course I will be speaking to many of you later, so you'd better beware!

Finally, Ladies and Gentlemen, if we are to bequeath our children and our grandchildren the kind of future we might wish for them – and we have just had the christening of my third grandchild yesterday. You look at small children now, and you wonder, what on Earth are we going to hand on to them? It's not frightfully encouraging. Unless people like yourselves, and many others actually see the point in making their lives endurable and ensuring that we re-balance what has happened, what we have done to Nature, during the course of the last some years now. So in that sense, I fear there really is no time to waste and Ladies and Gentlemen, I can't thank you enough for being here and showing interest and indeed, in many of your cases, doing something about it and setting an example. Thank you.

HRH THE PRINCE OF WALES

St. James's Palace, 10th July 2018

EXECUTIVE SUMMARY

Finance plays a central role in the success or failure of achieving the transition required.

In July 2018, finance leaders from around the world gathered at St. James's Palace, London to explore how they can play an integral role in delivering a sustainable financial system capable of supporting achievement of the UN Sustainable Development Goals and putting us on a pathway towards achieving the Paris Agreement.

The draft version of this document provided a framework for discussion at that meeting, setting out the need for progress, the actions already taken by actors across the financial system and what more needs to be done to deliver a sustainable financial system. It draws out five key cross cutting themes where all finance actors have an integral role to play.

The document has subsequently been updated to reflect discussions on the day, as well as recent policy or business developments. We note responsibility for the information and views set out in this report lies entirely with the authors.

We hope the ideas included in the document will be of use to businesses in exploring how to contribute to a more sustainable world, as well as to policymakers and regulators, including at the forthcoming G20 meeting, in considering how to encourage more action in this area.

THE NEED FOR ACTION BY FINANCE LEADERS - 2015 AND BEYOND

The UN Sustainable Development Goals and the Paris Agreement provide a clear vision for the future

Faced with a common set of global economic, social and environmental challenges, in 2015 governments around the world committed to a sustainable and inclusive global economy through the UN Sustainable Development Goals (SDGs) and the Paris Agreement. These global goals provide a focus to develop solutions and channel investment towards areas such as decent work and economic growth, the provision of clean water and sanitation, reducing inequality, developing sustainable cities, and tackling climate change. Finance plays a central role in the success or failure of achieving the transition required.

Businesses and the finance sector have strong incentives to act

There are significant opportunities for the business community from delivering the SDGs. In 2017, the Business and Sustainable Development Commission found that the delivery of the SDGs opened up US\$12 trillion of market opportunities. The World Investment Report has highlighted that global investment of between US\$5-7 trillion per annum will be needed to support the delivery of the SDGs.

To achieve a successful transition to a net zero carbon economy, significant capital will have to be divested from high carbon assets and reinvested into new technologies and infrastructure to drive the energy transition. The International Energy Agency (IEA) estimates that an additional US\$40 trillion is needed to achieve the Paris Agreement commitment to limit the increase in global average temperatures to well below 2°C.1

¹ All statistics in the Executive Summary are supported by references in the main body of the document

The costs from failure to address climate change will significantly outweigh the costs of transition. The IEA estimates that US\$318 trillion will need to be invested to adapt to climate change under a six degree trajectory. Businesses and the finance sector that funds them have strategic, financial and moral incentives to help deliver a more sustainable future:

- Strategic because the long term future of business relies upon the long term sustainability of the planet and its people:
- **Financial** because evidence shows there are increasingly significant short, medium and long term financial benefits to acting sustainably; and
- Moral because businesses are made of individuals who have a stake in the world in which they live.

Despite growing leadership, the current trajectory remains an unsustainable one

Despite the global intergovernmental agreements, and the willingness of many in the business and finance communities to take positive action, the most recent global data shows that financial flows are not yet moving in the right direction. Global fossil fuel consumption continues to increase, as do carbon emissions, almost half the world's population lack access to clean fuel, and nine out of ten people living in urban areas do not have clean air to breathe. Extreme weather events cost hundreds of billions in damages and billions of individuals across the world are exposed to water stress.

Market incentives are needed to deliver change

In many cases, failure to deliver progress against these climate and broader SDG commitments reflects a failure of the financial system to channel capital towards sustainable projects in the real economy. In large part, this is because incentives throughout the investment chain are misaligned with the achievement of long term, sustainable outcomes. Until market failures and misaligned incentives are corrected, the positive efforts currently pursued by some will be undermined and misalignment of capital markets will continue to hamper the pursuit of sustainable development.

CALLS TO ACTION

The detailed report which underpins this summary develops analysis across each actor in the capital markets, highlighting examples of commitments made and actions taken, barriers to progress and recommendations. Drawing on the analysis, five cross cutting themes for finance actors which are core to achieving progress are highlighted in the summary. Many of these themes are not new, but remain stubbornly resistant to change. Solutions are, however, starting to emerge. By bringing together leaders from each part of the investment chain at the St. James's Palace meeting and through the dissemination of this report, we hope that tangible progress, and new ideas to overcome barriers, might be identified. Each leader participating in the Summit has significant influence when he or she acts alone. The potential for positive impact when acting in concert is immense.

"The A4S Finance Leaders' Summit underscored the pivotal role of finance to address climate change and funding the considerable mitigation and adaptation efforts required today. Environment, social, and governance (ESG) principles are at the heart of all World Bank Group operations and of our actions to mobilize private capital to achieving the UN Sustainable Development Goals, which are essential to transforming the lives of billions of people and stabilize the world."

Joaquim Levy, Managing Director and World Bank Group Chief Financial Officer

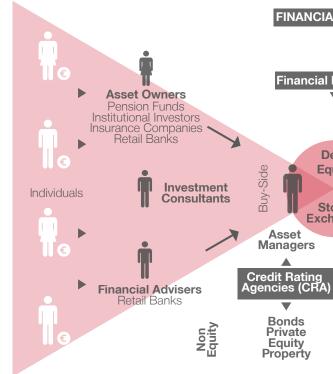
THE FINANCIAL SYSTEM

How all actors play a bigger role in delivering sustainable outcomes

Individuals (page 27) are crucial and often overlooked participants in the financial system. Their savings fund investments in companies, who in turn are their major employers. Many of the recommendations in this document include better educating individuals about their role in the financial system, its impact on the world around them and in ensuring that their sustainability and ethical preferences are able to flow through the system.

Asset owners (page 30) such as pension funds, insurers and sovereign wealth funds control a large proportion of global assets. If asset owners use their influence (often exercised via asset managers) to invest more sustainably, demand better information and practices from companies, as well as educate and consult their ultimate beneficiaries about the sustainability impact of the investments they do on their behalf, this would make a significant impact on sustainable development.

Investment consultants (page 49) play an increasingly important role in advising asset owners on their investment strategies, including recommending asset managers. They should inform and educate clients about sustainable investing and provide solutions to address social and environmental risk and opportunity.

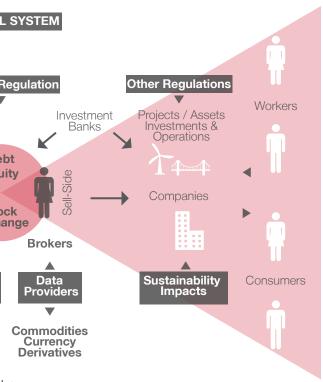


Source: Aviva Investors, European Political Strategy Cen

Asset managers (page 42) should proactively engage with clients on the benefits of integrating ESG factors and develop comprehensive investment, engagement and voting strategies to deliver client preferences. They should use their influence to encourage companies to disclose sustainability information of better quality, including adopting the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) and hold them to account on the adoption of sustainable business models.

Credit rating agencies (page 63) should improve the integration of sustainability issues into their assessments of credit risk when material and be transparent about the approach followed. In addition, capacity building needs to be undertaken in order to deepen the market for providers of independent ESG ratings that can provide valuable additional information for financial markets.

Regulators and policymakers (page 82) should align incentives in financial services with the sustainability outcomes agreed by national governments, making sure they can manage and mitigate the long term financial sustainability risks they are increasingly identifying. This includes supporting the recommendations of the TCFD.



Companies (page 75) should disclose consistently and transparently on the alignment of their activities with internationally and nationally agreed sustainability objectives, following international best practice where possible. On climate change, this would include following the recommendations of the TCFD. They should seek to engage with their investors, clients and customers on sustainable value and integrate into their practices.

Stock exchanges (page 69) should encourage companies listing with them to disclose consistent, comparable and high quality sustainability information, working with regulators and standard setters in instances where they cannot ask for this information directly. They should help promote sustainable financial products and educate companies, investors and individuals on the merits and advantages of sustainable finance.

Banks (page 55), both retail and investment, should embed sustainability throughout their business models, including (depending on the type of bank) through ensuring their own loans and investments are sustainable, asking their clients about their sustainability preferences, helping companies issue green bonds and other sustainable products, and delivering unbiased, long term financial analysis that integrates ESG factors.

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KEY RECOMENDATIONS

1. Build and disseminate a compelling evidence base, and motivate people to act

A significant number of individuals and organizations across the finance community are convinced that a range of social and environmental issues present material financial risk and opportunity, and that adoption of sustainable approaches to finance are in the best interests of their organization and its core stakeholders, including the ultimate owners. This view is, however, still not the norm despite a growing body of research conducted by leading investment research houses and the academic community. This implies that either: a) there remain gaps in the research undertaken to date, b) existing research is not being disseminated effectively, or c) the evidence base does not influence underlying beliefs.

Suggested actions:

- **1.1. Establish a global research fund** which can identify critical gaps and commission research to close those gaps from both the academic and investment research communities.
- **1.2. Extend existing analysis** to include ESG considerations and provide an outlook over longer time horizons than is currently the norm.
- **1.3.** Engage with key industry publications and the financial media to support dissemination of research.

Motivation to act: convincing people that sustainability matters

There not only needs to be compelling evidence of the importance of integrating ESG into investment decisions, individuals throughout the investment chain and capital markets need to be convinced and to want to take action, as well as have the knowledge to do so. Surveys increasingly show that, when asked the question, a significant proportion of people – of all ages, across the world – would like to put their savings and investments to better use and invest more responsibly.

- **1.4. Engage with individual savers and pension fund beneficiaries** to support alignment with beliefs, working with corporate sponsors and the investment community as relevant.
- **1.5. Incorporate into recruitment processes** a consideration of attitudes to issues such as climate change.
- **1.6.** Signal the importance of sustainability issues to peers and others along the investment chain by raising as a central part of meetings, conferences and as part of procurement processes.
- **1.7.** Review incentive structures to ensure that sustainability performance outcomes are part of short and long term remuneration across the investment chain.
- **1.8. Incorporate into professional codes of ethics and qualifications** to provide the necessary culture, tools and knowledge for investment professionals to act.

- **1.9.** Ensure that trustees, board members, and **key decision makers are 'sustainability competent'**, for example, through dedicated training programmes such as those run by the University of Cambridge Institute for Sustainability Leadership (CISL).
- **1.10.** Consider the need to strengthen regulatory guidance to reinforce the need to consider ESG matters, in particular as part of fiduciary responsibility.

2. Develop consistent terminology, definitions and clear product labelling backed by standards and verification

As interest in sustainable products grows, there is also growing confusion, both in terms of the definitions around sustainability and sustainable finance, and the labelling of products. Linked to this, there is also greater risk of 'green washing', with products, funds and managers labelled as sustainable without delivering tangible impact or effectively addressing ESG risk and opportunity, as well as increased risk of misselling.

Suggested actions:

- **2.1.** Support efforts underway at national and international levels to **develop clear labels for products**, with the aim of delivering globally consistent standards, for example by working with the International Organization for Standardization (ISO).
- **2.2.** Adopt existing best practice standards where they exist, for example, the green bond principles and the social bond principles.
- **2.3.** Report on outcomes both financial and non-financial in a transparent manner to enable retail and institutional investors to assess performance.

3. Allocate funds to deliver sustainable outcomes

To support a rapid transition to a net zero carbon economy and achieve the SDGs, there needs to be a significant increase in financing towards activities which will deliver these outcomes. This is likely to require both increased allocation of funds towards explicitly sustainable products, for example social or green bonds, as well as the integration of ESG considerations across all aspects of financing and investment decision making.

- **3.1. Set a target percentage allocation** to a sustainability innovation/outcome fund focused on opportunities around the SDGs and carbon transition.
- **3.2.** Consider actions to enable the **allocation of unclaimed dividends** to sustainable outcomes.
- **3.3.** Conduct an analysis across all funds, loans and investments to assess the positive and negative contribution made towards the SDGs and Paris Agreement, developing a strategy to align investment policies and decisions with these outcomes.
- **3.4.** Consider ways to adopt index linked funds which factor in sustainability as the norm, rapidly increasing the allocation to these funds.

4. Agree and adopt common reporting standards covering asset owners, asset managers and companies to close data gaps and enable comparison

Without information providing insight into sustainability factors, users across all parts of the system cannot properly assess the performance or prospects of companies or funds. There are three common issues faced by those seeking to incorporate a better understanding of sustainability risk and opportunity into investment decisions: 1) a lack of common frameworks or standards leading to a lack of consistency, 2) significant data gaps through failure to disclose, in particular where reporting is left to voluntary approaches rather than mandatory, and 3) a lack of enforcement of existing requirements. Joint action is required to close the information gap, a prerequisite for effective integration and alignment of sustainability and finance.

- 4.1. Accelerate adoption of the Taskforce on Climate related Financial Disclosures (TCFD) (see page 38) by committing to report against the recommendations and encouraging others to report, for example investors can exercise voting powers where there is a failure to provide adequate disclosures, and asset owners can consider inclusion as part of the selection process for managers.
- **4.2. Integrate sustainability information into core business decisions and client interactions**, whether it be guiding investments, providing analysis of companies or rating bonds, and make it clear to preparers how the information is being used.
- **4.3.** Work with other interested regulatory authorities around the world to **provide the mandate to an independent global body** with appropriate competence, oversight and accountability mechanisms to set sustainability standards, and provide incentives for existing standard setters to work together to drive greater convergence. Make disclosures mandatory in own jurisdiction, both by companies and by funds. For companies and investors, join forces to provide regulators with a clear call to action.
- **4.4.** Consider the potential for the SDGs to improve reporting on sustainability impacts by investors and companies, for example by using the SDGs as a framework for strategy development, target setting and reporting, and through support for the World Benchmarking Alliance (WBA) (see page 25).

5. Price externalities such as carbon to accelerate the ability of the market to price risk properly and thereby integrate into decision making

Social and environmental risks are starting to have short term financial impacts, however, the full consequences are only likely to impact over the longer term, and the cost will not necessarily fall on those with the greatest need to act. Finding ways to price in the risks faced to accelerate action is therefore vital.

- **5.1.** Adopt a shadow price on carbon within analysis and investment decision making, for example through joining the Carbon Pricing Leadership Coalition (CPLC), aligning the price with the latest analysis (for example, the CPLC's recent work suggests a price on carbon of US\$100 by 2030).
- **5.2.** Support efforts to internalize market externalities into the price signal at a level sufficient to affect investment decisions. This could include effective carbon pricing at an impactful level, and with clear signals setting out future increases, as well as eliminating fossil fuel subsidies.
- **5.3.** Develop natural and social capital accounting models and seek to incorporate into decision making to identify and respond to other externalities within the value chain which might present current or future opportunities and risks across other dimensions of sustainability.



Participants at the A4S Finance Leaders' Summit 2018 held at St. James Palace, London

INTRODUCTION

The UN 2015 Sustainable Development Goals and the Paris Agreement set out an ambitious vision for the future. The economic and financial community have a central role to play in achieving this vision. Without sufficient financial flows, the majority of which will have to come from private sources, the world remains on course for a dangerously risky future. The current trajectory is creating significant financial risks for business and the finance sector, when many would in fact stand to benefit from the opportunities that a sustainable pathway offers.

Despite the opportunities and the risks, capital markets have been slow to respond, although there are clear signs that this is starting to change. To deliver the Sustainable Development Goals (SDGs) and the Paris Agreement, we must go beyond a niche of green or social finance: mainstream finance must be made sustainable.

To connect finance and sustainability, a wholesale rethinking of behavioural incentives for all actors who influence the flows of global capital in financial markets is required¹: from individual investors putting money in their pensions to sovereign wealth funds investing billions, or the legislators and regulators setting and enforcing the rules that govern the financial system.

This document, which accompanies a high level meeting of financial actors at St James's Palace, London, sets out the issues and explores how all these actors can play a vital part in delivering a sustainable future. It builds on a series of recent expert groups and taskforces, a number of which are highlighted on page 24.

2015: A TURNING POINT?

Two United Nations agreements in 2015 indicated a major turning point in joint action to address sustainability issues.

In September 2015 country parties to the UN agreed on a new set of goals. Also known as the Global Goals, the SDGs are intended as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals build on the Millennium Development Goals (focused primarily on poverty eradication and health), while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice. They are intended to serve as the compass to guide economic progress for all countries between now and 2030.

The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCC) and was agreed in December 2015 at the 21st Conference of the Parties (COP 21). It set a commitment to limit the increase in the global average temperature to well below 2°C above pre industrial levels. Nearly every country in the world has signed the agreement, with 177 states and the EU – representing more than 87% of global greenhouse gas emission – having ratified or acceded the agreement.² Participants agreed to pursue policies and provide finance to lower greenhouse gas emissions and adapt to the adverse impacts of climate change.

Both the SDGs and the Paris Agreement included important elements calling for private finance to support the aims.

2 as of June 2018.

¹ For example as called for in the Addis Ababa Action Agenda, paragraph 36: We will develop policies and, where appropriate, strengthen regulatory frameworks to better align private sector incentives with public goals, including incentivizing the private sector to adopt sustainable practices, and foster long term quality investment. http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf

SUSTAINABLE FINANCE: THE CASE FOR ACTION

There is a strategic, financial and ethical case for companies and the finance sector to contribute to the delivery of the Paris Agreement and SDGs.

Traditionally, many organizations have seen action on social or environmental issues in purely ethical or moral terms. These ethical reasons remain, however, and over the past decade or more, there has been a growing body of evidence which underlines that an integrated approach to environmental, social and governance (ESG) issues can also support achievement of financial outcomes, both for financial actors and for businesses, whether through reduced risks or identification of opportunities. The Business and Sustainable Development Commission (BSDC), which brought together leaders from business, finance, civil society, labour and international organizations, set out in 2017 the compelling business case for companies to delivering the SDGs.3 The Commission's research found:

- Achieving the SDGs opens up US\$12 trillion of market opportunities by 2030 in food and agriculture, cities, energy and materials, and health and well-being, representing around 60% of the real economy.
- The total economic prize from implementing the SDGs could be 2-3 times bigger than US\$12 trillion, assuming that the benefits are captured across the whole economy and accompanied by much higher labour and resource productivity.
- Sustainable development opens up new opportunities and efficiency gains, drives innovation, and enhances reputations.

 Companies with a reputation for sustainability attract and retain employees, customers, business-to-business customers and investors.

Overall, the Commission finds:

Achieving the Global Goals would create a world that is comprehensively sustainable: socially fair; environmentally secure; economically prosperous; inclusive; and more predictable. They provide a viable model for long term growth, as long as businesses move towards them together.

These findings are also broadly echoed in recent studies by the Harvard Business Review and McKinsey,⁴ while research increasingly shows that, in the words of a recent BlackRock report, it is now "feasible to create sustainable portfolios that do not compromise return goals and may even enhance risk adjusted returns in the long run."⁵

The downside for business and the finance sector of not achieving a sustainable future is equally significant. A 2015 Economist Intelligence Unit study, for example, found the expected value of a future with 6°C of warming represents present value losses worth US\$43 trillion – 30% of the entire stock of manageable assets, using UK government discount rates. The World Economic Forum's 2018 Global Risk Report highlights growing concern, with eight out of the top 10 risks facing the global economy identified as environmental or societal, with a changing climate acting as a key driver linked to many of these risks.

An increasing number of leaders are responding to these trends, seeking a strategic alignment between profit and purpose.

⁴ https://hbr.org/2016/10/the-comprehensive-business-case-for-sustainability; and https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Sustainability%20and%20Resource%20 Productivity/Our%20Insights/Profits%20with%20purpose/Profits%20with%20Purpose.ashx 5 https://www.blackrock.com/investing/insights/blackrock-investment-institute/sustainable-investing-is-the-answer

⁶ https://www.eiuperspectives.economist.com/sites/default/files/The%20cost%20of%20inaction_0.pdf

⁷ https://www.weforum.org/reports/the-global-risks-report-2018

³ http://report.businesscommission.org/uploads/BetterBiz-BetterWorld_170215_012417.pdf

PROGRESS ON DELIVERING SUSTAIN-ABLE FINANCE, BUT MUCH STILL TO DO

Nowhere is this more clearly the case than with regards to financing the shift to sustainability. The estimates of the cost of investment needed to fund the SDGs and prevent the worst of climate change varies, but all predictions are sizable. For example:

- The UN estimates that at least U\$\$1.4 trillion additional spending per year may be needed for spending in low and middle income countries to deliver the SDGs.8
- The OECD estimates that U\$\$6.3 trillion of investment in infrastructure is required annually on average between 2016 and 2030 to meet development needs globally; and that additional U\$\$0.6 trillion a year over the same period will make these investments climate compatible.9

Over the longer term, the numbers are even larger. The International Energy Agency estimates that an additional \$40 trillion by 2050 is needed to transition to a global low carbon energy system in the two degree scenario. This represents less than 1% of the cumulative global GDP over the period from 2016 – 2050 and is expected to lead to fuel costs savings of US\$115 trillion.

It is widely acknowledged that public funding (by governments and international development banks) will be insufficient to deliver the speed and scale of change needed; therefore much of the financing will need to come from private investments. As the World Bank has noted, we need "a paradigm shift to move the discussion from billions in overseas development assistance to the trillions in investments of all kinds." There are some positive indications that finance is beginning to flow in a more sustainable direction. The UN Environment Programme (UNEP) has sought to investigate this change over the last four years.

UNEP has found:

- Green bond issuance grew from U\$\$11 billion in 2013 to U\$\$155 billion in 2017 – though this is in the context of a global bond market of around U\$\$100 trillion.
- Commitments to divest from carbon intensive assets reached around US\$5 trillion in 2016, set against new investments in coal, oil and gas over the same period of around US\$710 billion.
- From 2013 to 2017, policy and regulatory measures responding to international commitments have risen from 139 across 44 jurisdictions to 300 in 54 jurisdictions; with a substantial rise in system level initiatives (see Figure 2).

In addition, renewables have continued to grow at pace globally. Renewables saw the highest growth rate of any energy source in 2017, meeting a quarter of global energy demand growth last year.¹⁰

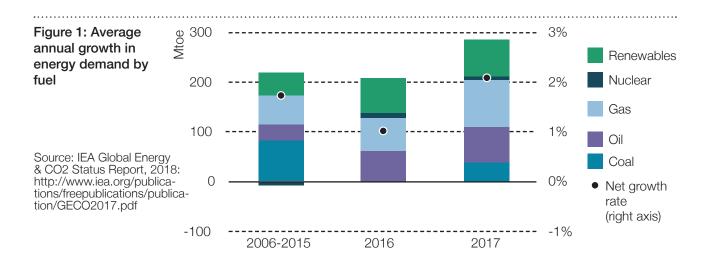
However, there is also compelling evidence that these changes are not happening swiftly enough or at scale.

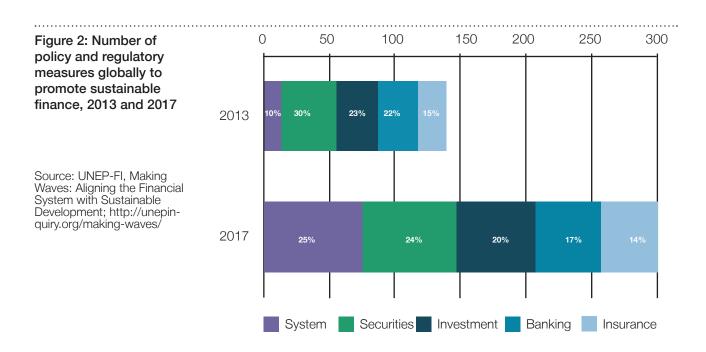
"An additional \$40 trillion by 2050 is needed to transition to a global low carbon energy system in the two degree scenario."

⁸ UN Sustainable Development Solution Network: Investment Needs to Achieve the Sustainable Development Goals, 2015 http://unsdsn.org/wp-content/uploads/2015/09/151112-SDG-Financing-Needs-Summary-for-Policymakers.pdf

⁹ OECD, Investing in Climate, Investing in Growth, 2017 https://www.oecd-lilibrary.org/docserver/9789264273528-en.pdf?expires=1525178244&id=id&accname=guest&check-sum=357733B62105D9A113178C9E9BC7FDBA

¹⁰ International Energy Agency (IEA) Global Energy & CO2 Status Report, 2018 http://www.iea.org/publications/freepublications/publication/GECO2017.pdf





On climate change and the energy transition, the International Energy Agency (IEA) Global Energy & ${\rm CO_2}$ Status Report from March 2018¹¹, finds that:

- Global energy demand increased by 2.1% in 2017, compared with 0.9% the previous year and 0.9% on average over the previous five years. 72% of the rise was met by fossil fuels.
- Global energy related carbon dioxide (CO²)
 emissions grew by 1.4% in 2017, reaching a
 historic high of 32.5 gigatonnes (Gt), a resumption
 of growth after three years of global emissions
 remaining flat.
- World oil demand rose by 1.6% (or 1.5 million barrels a day) in 2017, a rate that was much higher than the annual average of 1% seen over the last decade.
- Global coal demand rose about 1% in 2017, reversing the declining trend seen over the last two years.
- Global energy intensity improved by only 1.7% in 2017, compared with an average of 2.3% over the last three years.

In addition, significant new investment continues to flow into fossil fuel supply. The IEA found over \$800 billion new investment in fossil fuel supply and generation in 2016 (the most recent available figures); fossil fuels' share of supply investment in 2016 was over 57%. 12 While this percentage has fallen in recent years, there is nevertheless a significant amount of continued energy investment in the fossil fuel sector. If this trend continues, the Paris Agreement targets will not be met.

Assessing delivery of the SDGs as a whole since 2015 is more difficult. The first UN progress reports have acknowledged the difficulty in collating detailed data on 17 goals and 169 targets from so many countries, many with less well developed systems of data measurement and collection. Just as importantly, it is very hard for investors or individuals to assess corporate performance on and contribution to the SDGs.

Looking at social, economic and environmental data more broadly, progress has been mixed.

On the positive side:

- An estimated 767 million people lived below the extreme poverty line in 2013, down from 1.7 billion people in 1999. This represents a reduction in the global rate of extreme poverty from 28% in 1999 to 11% in 2013.
- The proportion of undernourished people worldwide declined from 15% in 2000-2002 to about 11% in 2014-2016.
- Between 2000 and 2015, the global maternal mortality ratio declined by 37%, and the under 5 mortality rate fell by 44%.

¹¹ http://www.iea.org/publications/freepublications/publication/GECO2017.pdf

¹² IEA, World Energy Investment 2017 https://www.iea.org/publications/wei2017/#section-2-3

However, many indicators, particularly those related to the environment, show that significant challenges remain, with many moving in the wrong direction:

- Economic losses from natural hazards are now reaching an average of US\$250 billion to US\$300 billion a year, with a disproportionate impact on small and vulnerable countries.
- More than 2 billion people globally are living in countries with excess water stress. Northern Africa and Western Asia, as well as Central and Southern Asia, experience water stress levels above 60%, indicating the strong probability of future water scarcity.
- More than 3 billion people, most of them in Asia and sub-Saharan Africa, lack access to clean cooking fuels and technologies and are exposed to high levels of household air pollution.
- In 2014, 9 in 10 people living in urban areas breathed air that did not meet the World Health Organization's air quality guidelines value for particulate matter.
- Globally, the material footprint of human beings increased from 48.5 billion metric tons in 2000 to 69.3 billion metric tons in 2010. The material footprint per capita increased from 8 metric tons per person to 10 metric tons per person over the same period.
- Of the 63 large marine ecosystems evaluated under the Transboundary Waters Assessment Programme, 16% are in the "high" or "highest" risk categories for coastal eutrophication¹³. By 2050, it is estimated that coastal eutrophication will increase in 21% of these large ecosystems.
- Biodiversity loss continues at an alarming rate. Corals, amphibians and cycads are in serious decline due to distinct and worsening threats. Bleaching, driven by climate change and local impacts, has affected the health of coral reefs worldwide, which could disappear completely by 2050. Amphibians also face a high risk of extinction, with 41% already threatened.

Overall, the UN finds that "the rate of progress in many areas is far slower than needed to meet the targets by 2030." ¹⁴

For change to happen at scale and on time, we need to integrate ESG into all financial flows.

"For change to happen at scale and on time, we need to integrate ESG into all financial flows."

¹³ Eutrophication is characterized by excessive plant and algal growth due to the increased availability of one or more limiting growth factors needed for photosynthesis (Schindler 2006), such as sunlight, carbon dioxide, and nutrient fertilizers.

¹⁴ The Sustainable Development Goals Report 2017, UN https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf

NEW SOLUTIONS – REFORMING CAPITAL MARKETS

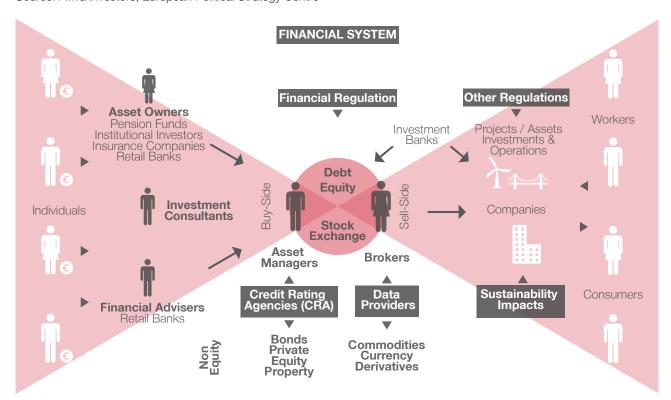
In many cases, failure to deliver progress against these climate and broader SDG commitments reflects a failure to finance more sustainable projects, as well as finance continuing to go towards areas that are unsustainable in the long term but appear profitable in the short term.

Capital markets, in relation to sustainable development, are characterised by market failure. Sustainability factors are frequently treated as an externality, are not incorporated into companies' balance sheets and are thus not reflected in companys' cost of capital. Until these externalities are internalized through corrective government policy, capital markets will remain ineffective in helping capital flow towards meeting sustainability objectives.

To illustrate this we have produced a simplified model of the capital markets (Fig 3).

Figure 3: Structure of the Capital Markets.

Source: Aviva Investors, European Political Strategy Centre



To summarize, capital flows from individuals on the left to companies on the right, who invest it to generate a return for shareholders. This capital is aggregated and invested collectively through institutional investors - such as through pension schemes or insurance companies - or invested individually (often with the help of an independent financial advisor). Asset owners often take the advice of investment consultants who, in turn, recommend which asset managers to choose. Such asset managers buy shares from sell side brokers on stock exchanges, who are typically part of an investment bank providing investment analysis and recommendations to fund managers. At each stage of the investment chain, the presence of misaligned incentives results in capital markets not adequately supporting sustainability.

This is why fiscal measures such as carbon taxes, market mechanisms like emissions trading schemes, and standards and regulations are vital to development of a sustainable economy. They help ensure that the market price reflects the full social and environmental costs, which drives corporate valuation. The valuation of every company helps it to compete: a higher market price means a lower cost of capital. Sustainable companies should be able to raise capital more cheaply than unsustainable ones. There is

some evidence that this is starting to happen, but the market needs correcting for it to be the case consistently, so that prices and valuations more accurately reflect the full costs of a company's actions. Across the world, some governments, regulators and multilateral institutions are beginning to try and correct this misalignment. The EU, for example, has developed a wide reaching Sustainable Finance Action Plan to shift financial incentives for actors in the EU financial market (see box overleaf).

The purpose of this document is to explore actions taken by representatives from across the capital markets, highlight a number of key barriers that combine to produce unsustainable behaviours and unsustainable financing. The report then identifies actions that might be taken by each group to achieve progress, ranging from the simple to the complex.





Promoting systemic sustainable finance policy reform

As this document shows, promoting sustainable finance cuts across multiple actors and pieces of legislation. Several initiatives are now promoting sustainable finance reform at national, regional and international levels. In UNEP's recent report, researchers found over 70 examples of system wide policy initiatives. Examples as of June 2018 include:

- The EU has sought to develop an overarching strategy on sustainable finance, establishing a High Level Expert Group (HLEG) in 2016 to publish detailed recommendations on making the EU's financial system more sustainable. Following the HLEG's recommendations in January 2018, the Commission has produced an Action Plan and legislative proposals including a number of system wide measures to increase demand for sustainable finance, clarify investors' duties, increase consistency and transparency of environmental, social and governance (ESG) data in the financial system and strengthen the role of financial regulators in managing sustainability risk.
- China has led the way on system wide green and sustainable finance policy. Its 2016 "Guidelines for Establishing a Green Financial System" set out a broad set of national measures, including reforms to insurance, banks and markets.
- The UK Government has established its own Green Finance Task Force, which has leveraged the expertise of the City of London to generate a series of systemic recommendations, including improving climate risk management, encouraging green lending and clarifying investor roles and responsibilities. The government will respond to these recommendations later in 2018.
- In 2016, the UK Government established an industry Advisory Group looking at how to grow a culture of social impact investment and savings in the UK. The final report was released in November 2017 setting out a series of recommendations for all actors in the financial services industry. A taskforce is now in place to take forward these recommendations.
- France's 'Article 173' of the Energy Transition for Green Growth Law, introduced in 2016, imposed ESG and climate reporting requirements for asset owners and managers, and has led to a rapid increase in the demand for sustainable financial products and information in France.
- In 2016, China launched a G20 Green Finance Study Group (GFSG), co-chaired with the UK. The GFSG
 has so far:
 - identified barriers to green finance and cases of good practice in overcoming barriers;
 - set out options for action at the national and international level;
 - o examined technical work on risk management and using publicly available environment data; and
 - looked at securitization of green lending.

The GFSG is now titled the Sustainable Finance Study Group under the Argentinian 2018 G20 Presidency.

- Canada has just announced the formation of the Expert Panel on Sustainable Finance.
- IOSCO's Growth and Emerging Markets Committee has established a Task Force on Sustainable Finance.
- Eight central banks have established a Network of Central Banks and Supervisors for Greening the Financial System (NGFS).
- In 2017 eight central banks have established a Network of Central Banks and Supervisors for Greening the Financial System (NGFS); membership has been rapidly increasing over the course of 2018 and now includes 18 members and five observers.¹
- The Roadmap for Green Competitiveness in the Norwegian Financial Sector, developed in 2018 by Finance Norway, the country's association of financial institutions comprising banks, insurers, investment firms and pension providers, sets out recommendations for a profitable and sustainable Norwegian financial sector in 2030.²
- Under Canada's leadership, the 2018 G7 meeting included a commitment by major investors to use resources, expertise and networks to promote sustainable development initiatives.

In many of these examples, finance leaders have partnered with governments and multilateral institutions to offer industry insight and expertise, producing policy recommendations that can both have an impact in shaping the market and avoid stifling growth and productivity.

¹ https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system/about-us

The World Benchmarking Alliance

Building on a recommendation outlined in the Business and Sustainable Development Commission's (BSDC) flagship report, Aviva, the UN Foundation, BSDC, and Index Initiative have proposed the establishment of a World Benchmarking Alliance (WBA).

This institution would develop, fund, house, and safeguard publicly available, free corporate sustainability benchmarks aligned with the SDGs. By providing all stakeholders with free access to this information, the WBA will help investors, civil society, governments and individuals exert their full influence on helping and holding the private sector to account in its efforts to accelerate delivery of the SDGs. This environment of enhanced transparency and understanding can in turn fundamentally change the quality of multi-stakeholder engagement and align corporate performance with sustainability objectives in line with the targets and indicators outlined by the SDGs.

Thanks to the support from the Dutch, UK and Danish Governments, as well as Aviva, the WBA founding partners have undertaken a series of regional and global consultations aimed at gathering inputs and insights on the proposed WBA objectives, governance and areas of focus. Since the launch of the consultation on the margins of the United Nations General Assembly, the WBA has engaged more than 10,000 individuals, surveyed 445 opinion leaders and consulted over 350 key stakeholders through both global and regional consultations as well as expert meetings.

Momentum behind the WBA is growing fast, with actors from across the supply chain of capital joining the alliance. These include the International Chamber of Commerce (ICC), the World Business Council for Sustainable Development (WBCSD), Oxfam, the UN Global Compact (UNGC), the Global Reporting Initiative (GRI), the World Wildlife Fund and the International Finance Corporation (IFC). At time of writing, over fifty major actors from all stakeholder groups have supported the consultation phase by becoming allies, and more are joining.



1. INDIVIDUALS

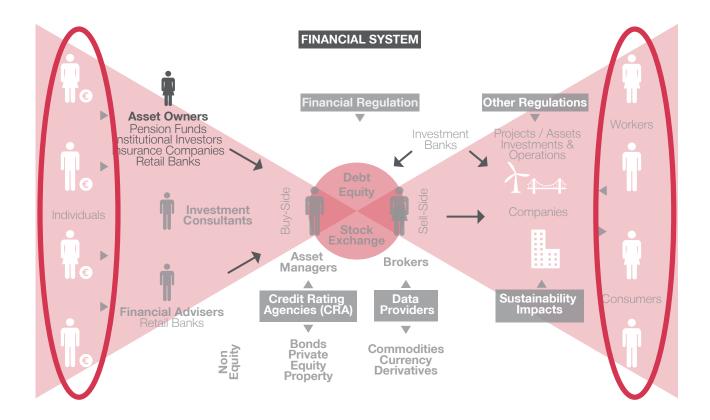
Too often the role of the individual in the financial system is forgotten or disregarded by those who direct much of the flows of finance.



The financial system exists to serve the needs of individual people. People invest their pensions and other savings via financial intermediaries. These intermediaries then put this money to work through loans to and investments that make a real-world impact. In turn, people are employed by and purchase products and services from companies, and the actions of those companies impact the wider world in which people live.

However, few people understand how the financial system works or, therefore, the connection between their savings and their wider environment. Consequently, too often the role of the individual in the financial system is forgotten or disregarded by those who direct much of the flows of finance.

This document is based around the concept that a financial system which puts people at its heart will be a more sustainable financial system – the kind of financial system the world so desperately needs if we are to address the dangerous ecological and development risks highlighted in the introduction.







Recommendations

Many of the recommendations for the financial intermediaries in the chapters that follow focus on empowering individuals to understand their role in the financial system, so as to more fully express their preferences about how the investments made on their behalf influence the wider world around them.

Additionally, governments need to educate citizens on how their investments shape the world they live in today and will retire into. We need to deliver rapid improvements in literacy in sustainable finance and at scale.

Governments should work with multilateral institutions, industry, educational and consumer groups to design and deliver ambitious financial literacy programmes delivered in secondary, tertiary and continuing education.

The financial advisory community have a particularly important role to play to keep individuals to understand the impacts of their investment choices, ESG risks and opportunities, and the options available to them.





2. ASSET OWNERS

Asset owners are both highly exposed to the risks of an unsustainable future and in a strong position to influence a more sustainable outcome.



Asset owners are both highly exposed to the risks of an unsustainable future and in a strong position to influence a more sustainable outcome. This section focuses on the three largest groups of asset owners: pension funds (US\$41 trillion AUM¹), insurers (US\$33 trillion AUM²) and sovereign wealth funds (US\$7 trillion AUM³). These groups share some features in their ability to impact sustainable investments, although there are also key differences. The sovereign wealth fund community, for instance, is particularly concentrated, with the 10 largest funds accounting for 74% of the industry's assets.⁴ By contrast, the top 20 pension funds own just 17.4% of the global pension assets.

All asset owners are exposed to the risk of a loss in value of assets due to environmental degradation or social issues. In the case of climate change, it is likely that a wide range of sectors in the economy will be exposed to the physical effects of climate change, either directly or indirectly. Other assets, for example in the fossil fuel sector, may become 'stranded' by a rapid energy transition. According to a 2015 study in Nature, an estimated third of oil reserves, half of gas reserves and more than 80% of known coal reserves should remain unused in order to keep the rise in average global temperatures to well below 2°C, in line with the Paris Agreement. 5 Owners of these reserves, as well as companies that use fossil fuels as inputs for production or are otherwise energy intensive sectors, could lose significant value if technological or policy change means they cannot use these resources. A study in 2015 found that across the oil and gas industry US\$2.3 trillion of upstream projects - around a third of business as usual projects to 2025 - are not consistent with global commitments to limit climate change to the well below 2°C Paris target and rapid advances in clean technologies.6

1 Figure for the world's largest 22 markets and as of 2017, according to https://www.willistowerswatson.com/-/media/WTW/Images/Press/2018/01/Global-Pension-Asset-Study-2018-Japan.pdf#page=3

2 ibid

Insurance companies stand to be particularly hard hit by sustainability issues on both sides of their balance sheets. As well as the exposure of their assets to physical and transition risks of climate change, many of the liabilities that insurers underwrite will be exacerbated by environmental degradation, in particular, an increase in extreme weather events caused by climate change will increase the cost of providing insurance against these risks, and also increase the "protection gap" - the growing divide between economic losses sustained and losses insured. The global catastrophe protection gap grew by US\$65 billion between 2015 and 2016.7 Leading insurers have warned that a world in which average global temperatures increase by 4°C above pre-industrial levels by 2100 (a reasonably likely scenario on current trajectories) would put the whole business model of the industry under threat.8

Asset owners have levers to influence sustainability outcomes. They sit at the top of the investment chain and can use their investments and engagement with the companies they own to deliver more sustainable outcomes. The long term nature of pension fund and insurers' liabilities means they are well positioned to provide the long term finance that can help capture sustainability related opportunities and returns. They can influence the types of investments made by asking investment consultants to recommend asset managers on the basis of specific sustainability criteria, and writing these into the investment mandates agreed with asset managers. In addition, insurance companies can influence through their underwriting practices and work on risk analysis.



³ As of 2018, according to Preqin. Source: https://uk.reuters.com/article/uk-global-swf-assets/global-sovereign-fund-assets-jump-to-7-45-trillion-preqin-idUKKBN1HJ28P

⁴ https://www.willistowerswatson.com/-/media/WTW/Images/Press/2018/01/Global-Pension-Asset-Study-2018-Japan.pdf#page=3

 $^{5\ \} The geographical distribution of fossil fuels unused when limiting global warming to 2\ ^\circ C\ https://www.nature.com/articles/nature14016$

^{6 2} degrees of separation – Transition risk for oil and gas in a low carbon world https://www.carbontracker.org/reports/2-degrees-of-separation-transition-risk-for-oil-and-gas-in-a-low-carbon-world-2/

⁷ ClimateWise Principles Review 2017 https://www.cisl.cam.ac.uk/publications/publication-pdfs/climatewise-principles-review-2017.pdf

⁸ For example see https://www.forbes.com/sites/dinamedland/2015/05/26/a-2c-world-might-be-insurable-a-4c-world-certainly-would-not-be/#7a3a2f192de0

CURRENT ACTIONS

There is a range of examples of asset owners beginning to act to promote sustainable investments, which can be grouped around a number of common areas.

Signing up to global initiatives to promote sustainability

Many asset owners are members of the UN Principles for Responsible Investment, committing to incorporating ESG issues into investment practices. Its signatories accounted for nearly US\$70 trillion of AUM in 2017.

28 insurers have joined ClimateWise, which supports the insurance industry to communicate, disclose and respond to the risks and opportunities associated with the climate risk protection gap.⁹

In December 2017, six of the world's largest sovereign wealth funds set out their plans to create and disclose an ESG framework to guide their investment decisions.¹⁰

At the recent G7 Summit in June 2018, a group of 12 institutional investors¹¹ came together to support actions in three key areas: 1) Increasing gender diversity in global capital markets, working in partnership with the CFA Institute; 2) Strengthening networks and expertise in sustainable infrastructure; and 3) Moving forward in climate related financial disclosures, making specific recommendations in each area.

2. Assessing sustainability risks, opportunities and potential impacts on their portfolios

Some pension funds, such as CBUS or AP4 have started mapping the impact of their investment

9 ClimateWise is convened by the University of Cambridge Institute for Sustainability Leadership (CISL) https://www.cisl.cam.ac.uk/business-action/sustainable-finance/climatewise

portfolio on the SDGs.¹² Others, such as APG and PGGM, have started working on defining taxonomies for SDG related investments.

Insurers and reinsurers are particularly well placed to develop work on risk: for example MunichRe's work on Climate Risk Adaptation and Insurance in the Caribbean¹³ and Lloyd's of London's extensive work on risk in the natural environment¹⁴. Insurers in less developed markets are also acting: for example, in October 2016 ClimateWise partnered with African insurer Santam in an innovative collaborative model with the Dar es Salaam city leadership to manage the risks and opportunities associated with key public infrastructure projects.¹⁵

A number of asset owners have signed up to the Taskforce on Climate related Financial Disclosures (TCFD)¹⁶ and are preparing detailed climate risk scenarios.

Adjusting investments and building sustainability into their investment mandates with asset managers

A number of asset owners have recently made important commitments to more sustainable investments. For example:

- Nordea Life & Pensions has reallocated 7 billion SEK towards sustainable investments from 2018 and will continue reallocation during 2019 until all investments are sustainable, based on internal ESG ratings.
- HSBC constructed a climate tilted fund with LGIM for its default DC pension fund, citing a desire to achieve a "better risk-adjusted return" by managing climate risk.¹⁷
- Japan's Government Pension Investment Fund (GPIF), the world's largest pension fund,



¹⁰ https://www.oneplanetsummit.fr/IMG/pdf/one_planet_sovereign_wealth_fund_working.pdf
Founding members are: Abu Dhabi Investment Authority; Kuwait Investment Authority; New Zealand
Superannuation Fund; Norges Bank Investment Management (NBIM); Public Investment Fund of the
Kingdom of Saudi Arabia: Qatar Investment Authority

¹¹ CDPQ, OTPP, Calpers, Allianz, Aviva, Natixis, Omers, AlMco, OPT, PGGM, Generali and CPPIB: https://www.newswire.ca/news-releases/leading-canadian-and-g7-investors-come-togeth-er-in-support-of-global-development-initiatives-684685981.html

¹² OECD. Large Pension Fund Survey. 2016

¹³ http://www.climate-insurance.org/home

¹⁴ https://www.lloyds.com/news-and-risk-insight/risk-reports/library/natural-environment

¹⁵ https://www.cisl.cam.ac.uk/business-action/sustainable-finance/climatewise/news/cip-airr-pilot-project-dar-es-salaam-tanzani

¹⁶ See, for example, those who have signed up to the A4S Statements of Support and the G7 Institutional Investor group.

¹⁷ https://www.ipe.com/news/esg/hsbc-uk-pension-scheme-adopts-climate-tilted-fund-as-dc-default/www.ipe.com/news/esg/hsbc-uk-pension-scheme-adopts-climate-tilted-fund-as-dc-default/10016045.fullarticle

- announced that it will shift 3% of its passive domestic equity investments (roughly \$8.8 billion) into ESG indices, increasing to 10% eventually.¹⁸
- CalPERS has invested \$1 billion in an ESG Global Equity portfolio.¹⁹
- The UK Environment Agency Pension Fund has set a target of 25% of the fund to be invested in the sustainable and green economy.
- Norway's sovereign wealth fund's announcement in 2017 that it was considering divesting its oil and gas holdings to reduce its overall exposure to the sector made an immediate impact on the market. A final decision on whether to divest will not come until 2019 at the earliest.
- AXA and Allianz have both recently announced extensions to their climate change strategies, including further divestments from fossil fuel and investments in renewables.²⁰
- Aviva has promoted sustainable investment across its businesses, and has committed to at least £500m of low carbon investments per year

18 http://www.gpif.go.jp/en/topics/pdf/20170703_esg_selection_en.pdf; https://www.reuters.com/article/us-japan-gpif-esg/japans-gpif-expects-to-raise-esg-allocations-to-10-percent-ftse-russell-ceo-idUSKBN19Z11Y

19 https://www.ai-cio.com/news/calpers-invests-1b-esg-global-equity-portfolio/
20 https://www.axa.com/en/newsroom/news/axa-launches-new-climate-change-actions;
https://www.allianz.com/v_1504648800000/media/responsibility/documents/Allianz_Climate_
Strategy_09_2017_final.pdf

- from 2015 to 2020.21
- Legal & General Capital has set a target to provide capital for up to 5% of the UK clean energy market, enough to sustainably power 5% of all UK households by 2021.²²

However, despite these positive examples, we are far from a situation where all asset owners act systematically and at scale to address sustainability challenges and invest sustainably. According to the most recent OECD survey of large pension funds, for instance, most pension funds still allocate less than 1% of their total investment towards green investments. The scale of investment on the social side is even smaller.²³ And as the general trends of financing set out in the introduction demonstrate, substantial investment continues to flow in unsustainable directions. A 2017 Mercer survey of European pension schemes found only 20% of asset owners integrate sustainability into their investment beliefs and policy.²⁴

BARRIERS

 Fiduciary duties are still poorly understood and the belief that social and environmental issues can be financial in nature are not consistently held

Fiduciary duties – the duties of the investor to the beneficiary – are poorly understood and are often misinterpreted as focusing purely on short term financial gains. In 2016, for example, one in five US institutional investors (22%) believed integrating ESG into investment decision making would go against their fiduciary duty. While that share is much lower in the EU (8%), the overall integration of ESG criteria – let alone beneficiaries' sustainability preferences – in decision making remains low overall among institutional investors, including pension funds.

25 "Why and How Investors Use ESG Information: Evidence from a Global Survey", Amel-Zadeh & Serafeim.

26 The survey, published by by AXA investment management, surveyed 122 insurance company

Most countries in fact already have some form of fiduciary duty definition in place²⁷, many of which are compatible with addressing sustainability and other long term issues. The issue is clarity of fiduciaries' understanding of their duties and their mandate. This need for clarification is now well acknowledged internationally, including by the EU High Level Expert Group (HLEG) on Sustainable Finance, which notes that "by clarifying the duties of investors such as pension funds [...] the EU can encourage a greater focus on sustainability issues over the long term" and calls on the OECD to "produce a convention on long term sustainability risks clarifying that investor duties should incorporate sustainability issues". Regulators are starting to respond.

CIOs and decision-makers in France, Germany and the UK.

27 Not every guidance or regulation takes the title of fiduciary duty. In the EU, for instance, MiFID (soon to be updated by MiFID 2) includes a general requirement that managers, advisors, and brokers "act honestly, fairly and professionally in accordance with the best interests of its clients".





²¹ https://www.aviva.com/social-purpose/environment/

²² https://www.legalandgeneralgroup.com/csr/our-focus-areas/transitioning-to-a-low-carbon-economy/

²³ OECD. Large Pension Fund Survey. 2016 http://www.oecd.org/daf/fin/private-pensions/2016-Large-Pension-Funds-Survey.pdf

²⁴ https://www.uk.mercer.com/newsroom/european-asset-allocation-report-2017-climate-change-risk.html

Beneficiaries' sustainability preferences are seldom collected or reflected in the investment mandates asset owners give to asset managers

Some asset owners have started to offer options for investing away from controversial issues such as fossil fuels or weapons²⁸, while others make use of member meetings to discuss their sustainability policies.²⁹ However, most have yet to take a more proactive approach in revealing their beneficiaries' preferences.

The lack of a proactive approach in revealing beneficiaries' preferences is a missed opportunity. When asked, most people want their money to align with their values and giving them this opportunity can only consolidate relations and trust with the beneficiaries while delivering sustainable investment aligned with their values. According to a recent survey by Povaddo, for instance, 74% of employees from FORTUNE 1000 companies felt it was important for their 401(k) to have socially responsible investment options. The share is even higher among young savers, 86% of which support sustainable investment of their pension savings.

Asset owners can do more to reveal the sustainability preference of their beneficiaries and include those into their investment mandates. At the very least, they should actively make sure to seek their beneficiaries' preferences – for instance through polling – and offering multiple investment options.

They should also make sure these values are reflected in their investment beliefs, investment mandates and active ownership practices. GPIF, for instance, has been very clear to its asset managers that it expects them to disclose how they voted on each investee company at the individual agenda item level.³² It also polls investee companies in the JPX Nikkei Index 400 companies to evaluate stewardship activities

carried out by its external asset managers, as well as investees' expectations on the type of stewardship activities they expect GPIF to play.³³

Poor quality of information about ESG risk/ performance of assets

Even where asset owners are motivated to invest more sustainably, they are often limited in their ability to do so by poor quality information on the differing sustainability performance of available assets in which to invest.

The ability to assess a company's overall governance and performance in the context of these factors is of central importance to institutional investors. If the information that market participants have to rely upon is short term and thin, then these are the characteristics that will define the market. The current reporting model, framed by International Financial Reporting Standards, national standards and stock exchange rules, does not provide the necessary framework to enable environmental and social factors to be taken into account systematically in reporting and decision making. A February 2017 paper by Harvard Business School and Oxford University's Saïd School of Business reported that 45% of 368 institutional investors globally found that a lack of data comparability across firms was limiting their ability to use sustainability information in their investment decisions.

As a result, undue focus and reliance is placed on short term financial performance, with the risk that capital is not being directed efficiently towards those companies that have robust business models, that make a meaningful contribution towards the achievement of a sustainable society and which outperform in environmental, social and governance terms.

The Annual Ranking of Sustainability Disclosure in Global Stock Exchanges³⁴ has consistently shown that sustainability reporting is strongest where there are regulations mandating sustainability disclosure.



²⁸ https://stok.com/sustainable-401ks-can-strengthen-future-2/

²⁹ DNB. "Sustainable investment in the Dutch pension sector". 2016. Available at: https://bit.lv/2ETWvnr

³⁰ https://bit.ly/2lZiMCz

³¹ ShareAction. "Pensions for the next generation. Communicating what matters". March 2018. Available at: https://shareaction.org/wp-content/uploads/2018/03/NextGenerationPensions.pdf 32 https://www.responsible-investor.com/home/print/gpif_esg1/ 1/1

³³ http://www.gpif.go.jp/en/topics/pdf/20170524_summary_report_of_the_2nd_survey.pdf

³⁴ http://www.corporateknights.com/reports/2017-world-stock-exchanges/

4. There is a lack of information on alignment with sustainability objectives

In addition to the above, it is often also hard for asset owners to evaluate accurately the exposure of their asset managers to sustainability risks and the degree to which their investment products contribute to delivering the sustainability objectives (and opportunities) reflected in the SDGs and the Paris Agreement.

Greater use of forward looking information such as scenario stress testing and, more generally, integration of sustainability risks and opportunities will be necessary to evaluate that alignment. For this information to have a significant impact on capital allocation, however, this information will have to be disclosed publicly, along with the strategies that asset managers intend to pursue in order to align their investments with sustainability goals. Ensuring this takes place at scale will require intervention on two important grounds: the creation of standards and labels for investment products that are aligned with sustainability objectives; and the establishment of sustainability disclosure requirements for asset managers - as well as throughout the supply chain of capital. An "equivalent of France's Article 173, or an obligation to disclose how sustainability is taken into account could boost sustainability investments", for instance, notes the HLEG.



5. There is a limited end investor demand due to lack of understanding of the financial system

Few people – from consumers to other stakeholders – understand how capital markets work. The financial system is hardly ever taught. It is not in national curricula, rarely included in undergraduate or even postgraduate qualifications and it is possible to do an MBA and not understand how capital originates with individuals, or know which institutions it flows through before being put to work in the real economy.

This may be one reason for the disparity between very strong survey scores when customers are surveyed (for example in a 2017 Morgan Stanley survey 75% of those surveyed said they would be interested in sustainable investing) and, for example, the number of customers actively investigating whether their pension is being invested sustainably.

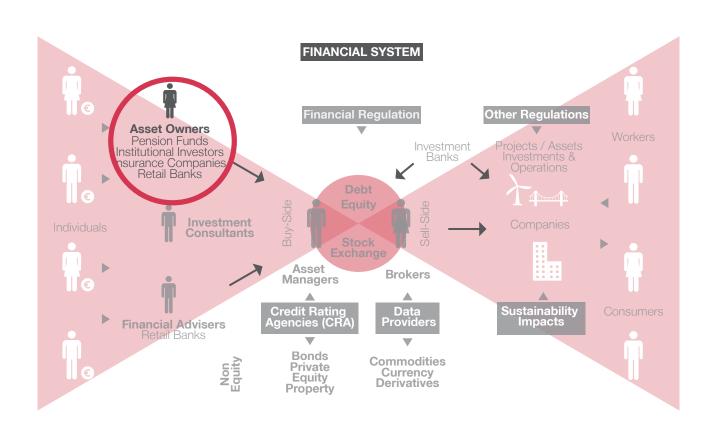
6. There are regulatory disincentives to long term sustainable investments for insurers

The regulatory capital framework under which an insurer operates, setting out how much regulatory capital it is required to set aside against the assets it holds, strongly influences its investment strategy and approach to managing long term risk. No capital framework currently adequately incorporates climate or broader long term sustainability risk in any meaningful way. This means that, perversely, in practice, the short term nature of global capital regulatory frameworks means insurers are incentivized to invest in sectors where risks are medium to long term, and therefore not captured in regulatory requirements, rather than in, for example, renewable investments that may be less risky in the long term.











Aon: global survey on responsible investing attitudes and trends (2018)

The Aon 2018 report on Global Perspectives on Responsible Investing (RI) encompasses feedback from 223 global institutional investors from corporate and public pension plans, endowments and foundations. Some of the key findings are summarized below.

Investor attitudes:

- Around two thirds of respondents indicated that RI was important to some degree to their organization
- The belief that incorporating ESG data leads to better investment decisions was the top reason (39%) for engaging with RI.
- Over two-thirds of investors indicated that the onus for RI falls to their investment managers
- The top five drivers for RI: 1) fossil fuels; 2) climate change; 3) bribery and corruption; 4) renewable energy; and 5) weapons manufacturing.
- More than 38% indicated that the biggest hurdle for engagement with RI was the lack of consensus about the impact on investment returns.
- More than 50% indicated that better or more consistent data on ESG factors would make it easier to implement responsible investment commitments.

Practical application:

- 40% of respondents have a Responsible Investment policy in place and 14% are in the process of developing such a policy.
- Over one third of investors do not know or track if their asset managers incorporate RI or ESG, whereas roughly one-third have between 75%-100% RI coverage from their managers.
- Investors favour the integration of ESG over socially responsible investing*.
- Just under 50% of investors consider ESG/RI as one of the factors when making fund manager selections.
- Only 8% of investors would sack an outperforming fund for not having a responsible investment policy.



^{*} Socially responsible investing involves avoidance or disinvestment based on an investor's or organization's value system (definition as per the Aon global survey, see www.aon.com/responsibleinvestment to download).

The Task Force on Climate-related Financial Disclosures (TCFD)

The Task Force on Climate-related Disclosures (TCFD) was established by the Financial Stability Board in December 2015 to develop a set of voluntary, consistent disclosure recommendations for use by companies in providing information to investors, lenders and insurance underwriters about their climate related financial risks.

The 32 industry members of the Task Force are drawn from a range of industries – financial and non-financial – and countries, and chaired by Michael Bloomberg.

The TCFD published its final recommendations and report in June 2017. The recommendations are structured around integrating climate change into four thematic areas, set out in the figure below:



Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

As of August 2018, over 390 organizations have expressed their support for the TCFD.

Governments, for example in the UK and EU, are now looking at how the TCFD recommendations could be incorporated in regulation and guidelines, in some cases considering how more mandatory disclosure requirements could support adoption and effectiveness.



Recommendations

For asset owners:

- Integrate sustainability into investment strategies, in instructions to investment consultants, and in the investment mandates given to asset managers.
- Allocate a percentage of funds to products specifically targeting sustainable outcomes.
- Implement TCFD recommendations around integrating climate change into governance, strategy, risk and metrics, including by evaluating and disclosing their exposure to and strategies for managing their climate related financial risk.
- Push for greater corporate disclosure of ESG data, and ask asset managers to use voting, engagement and investment powers to influence corporate behaviour.
- Work actively with other stakeholders to call for sustainable finance regulation at the national, regional and international level.
- Consider establishing an ESG subcommittee of the Board to provide sufficient time to focus on the agenda.
- Ensure Board members, management and staff are "sustainability competent".
- Monitor the voting activities of managers, building levers into the mandate, for example, divestment if performance does not improve following engagement.
- Consider appropriate ways to ensure default DC schemes are protected against ESG risk.

For policymakers and regulators:

- Clarify in relevant legislation/regulation and guidelines that the duty of pension funds includes a duty to incorporate material ESG issues into how pensions are invested, and to consult end beneficiaries on their ethical preferences (see box overleaf).
- Ensure pension funds and insurers are disclosing granular, comparable, consistent data on the ESG performance of their assets, drawing on TCFD recommendations where appropriate.
- Ensure financial regulators have the expertise to enforce this regulation appropriately.
- Ensure prudential framework for insurers adequately incorporates climate risks, including in capital requirement differentiation.



Clarifying fiduciary duties

Investors have a duty to act in the best interests of their clients or beneficiaries. In some jurisdictions this is known as a 'fiduciary duty'.

This duty can – and often is – misinterpreted by pension fund trustees and other investors as a duty to maximize short term financial returns. They will therefore often not consider sustainability factors, even though these factors could have a material impact on the value of their investments. Further guidance and interpretation on how to include sustainability factors into fiduciary duty would therefore significantly help overcome this barrier to adoption.

Policymakers should look at how they can give investors comfort in knowing that taking sustainability factors into account in their investment strategies is in line with their fiduciary duty. They should also consider requiring all actors in the investment chain, notably asset owners, asset managers and investment consultants to:

- clearly disclose the way in which sustainability factors have been considered and incorporated into the investment process; and
- proactively consult their clients to determine whether they wish to have any additional ethical considerations taken into account in the way in which their money is managed.

The actions set out in the European Commission's action plan on financing sustainable growth¹ are a good step in this direction.

Building on the comprehensive analysis and recommendations by the UN Principles for Responsible Investment and the report commissioned by DG ENVI, all governments should encourage the OECD to strengthen the current G20-OECD High-level Principles of Long Term Investment Financing by Institutional Investors, by establishing a convention which defines a common interpretation of fiduciary duty focused on the long term rather than purely short term outcome.

1 https://ec.europa.eu/info/publications/180308-action-plan-sustainable-growth_en



3. ASSET MANAGERS

With the size of the global asset and wealth management industry expected to grow to US\$145.4 trillion by 2025, asset managers have significant influence on how capital is directed and the outcomes achieved.



As the institutions responsible for investing their clients' capital, asset managers play a crucial role in the investment chain. Their position means they have the opportunity (and in many jurisdictions an implicit fiduciary duty) to ensure that ESG risks and opportunities are discussed with their clients, transcribed into the investment mandate, respected in the investment process and reflected in the engagement with companies that asset managers perform on

their clients' behalf. With the size of the global asset and wealth management industry expected to grow from US\$84.9 trillion in 2016 to US\$145.4 trillion by 2025 (+71% growth) according to PwC¹, they have significant influence on how capital is directed and the outcomes achieved.

CURRENT ACTIONS

Asset managers vary in the level with which they promote sustainability through their practices. Broadly, their current actions can be grouped as follows:

 Using engagement with companies and voting to encourage more sustainable practices and disclosure

It is becoming an increasingly common practice for asset managers to use their engagement and voting to influence corporate behaviour on sustainability issues. Aviva Investors, for example, was the first asset manager to state it would vote against companies based on whether the company disclosed against TCFD recommendations, while BlackRock's chairman and CEO Larry Fink used his 2018 letter to investee companies to emphasize the need for them to deliver a social purpose.² LGIM committed in 2017 to engage with 84 of the systemically important companies to the transition to a low-carbon economy, on their management of climate risks and pledged to vote against reappointing the chair of companies that did not meet minimum standards and potentially divest the companies from the Future World range of funds.3

Many asset managers also disclose information on their voting and engagement, though as a recent ShareAction report notes, the extent and quality of this varies widely.⁴ The survey of European asset managers found that although 70% of asset managers sampled publicly disclose voting decisions,

only 20% disclose a rationale. A review by Morningstar also found that some large asset managers will only exercise their rights for a subset of their equity holdings, while others will vote across most, if not all, of their holdings.⁵

An example of an area where engagement and voting has had visible success through coordinated investor action is increasing the disclosure from a number of companies, in particular in relation to climate risk.

2. Integrating sustainability criteria into investment decisions

In the same ShareAction survey, over 50% of respondents said they allocate capital to investments that promote sustainable development, however, only 5% provided detailed information, including quantitative information, on the impacts of their investments to substantiate this response. It is therefore not always clear from publicly available information how fully sustainability is mainstreamed into asset managers' practices.

Thought leadership and engagement to reform markets

Asset managers are also using their global viewpoint of financial markets to issue thought leadership pieces and promote market reform, often working collaboratively to do so. For example:

 Asset managers and asset owners work together to promote responsible investment through groups such as the PRI, the University of Cambridge's Investment Leaders Group⁶, CERES



¹ https://press.pwc.com/News-releases/global-assets-under-management-set-to-rise-to--145.4-trillion-by-2025/s/e236a113-5115-4421-9c75-77191733f15f

² https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter

³ http://www.lgim.com/uk/ad/press/2018/legal---general-investment-management-takes-action-on-climate-change-risks.html

⁴ https://shareaction.org/wp-content/uploads/2017/03/Survey-LiftingTheLid.pdf

⁵ https://www.morningstar.com/lp/passive-providers-active-approach

⁶ Facilitated by the Cambridge Institute for Sustainability Leadership (CISL)

- and the Institutional Investors Group on Climate Change (IIGCC).⁷
- Aviva Investors has promoted the concept of sustainable capital markets, and has published a sustainable finance roadmap which critiqued finance, highlighted the lack of sustainability and made a series of holistic recommendations for how the system could be changed.
- LGIM has promoted a number of measures to encourage sustainable investment, including calling for clarification of fiduciary duty, ranking corporate leaders and laggards on climate change and calling for IOSCO to do more to harmonize climate disclosure.
- A range of asset managers are represented on numerous key groups promoting market reform, including the EU HLEG, the UK Green Finance Task Force, the UK Taskforce on Social Impact and the TCFD.

Despite these promising moves, the overall scale of asset manager action to incorporate ESG factors into their work in a comprehensive manner remains weak. Investment consultant Lane Clark & Peacock's (LCP) most recent biennial investment survey of 120 major UK-based investment management firms found only a small number have put in place comprehensive approaches to responsible investment, with 8% of the 120 asset managers receiving the top score compared to 20% being awarded the lowest.8 This pattern is consistent with the internal analysis of another major UK investment consultant. A 2017 Harvard Law School survey, similarly found that "actual practices with respect to ESG incorporation vary greatly, with most investment managers falling well short of the gold standard of full integration."

⁷ http://www.iigcc.org/about-us/our-members



8 https://www.professionalpensions.com/professional-pensions/analysis/3028647/are-asset-managers-delivering-on-their-esg-claims





Table 1. Support for key climate and 2°C scenario shareholder resolutions in 2017 by asset managers. Source: "Asset Managers: Report on Key Climate Votes".

Asset Manager	Rank by size	% Support for 2017 Key Climate Votes	% Support for 2 Degree proposals 2017
BlackRock	1	9%	14%
Vanguard	2	15%	14%
State Street	3	61%	57%
Fidelity	4	30%	14%
BNY Mellon	5	19%	0%
J.P. Morgan	6	22%	8%
PIMCO	7	35%	29%
American Funds/Capital Group	8	29%	40%
Prudential	9	38%	36%
Goldman Sachs	10	58%	71%
Northern Trust	11	61%	100%
Nuveen	12	88%	100%
Invesco	13	28%	23%
T. Rowe Price	14	24%	36%
Deutsche Asset Management	15	90%	100%
Affiliated Managers Group	16	71%	89%
Legg Mason	17	85%	86%
Franklin Templeton	18	39%	46%
UBS	19	78%	73%
Wells Fargo	20	85%	100%
AllianceBerstein	21	81%	100%
Dimensional Fund Advisors	22	15%	0%
MFS Investment Management	23	91%	100%
Morgan Stanley	24	79%	100%



BARRIERS

Fiduciary duties do not explicitly reference the need to account for ESG issues

In many jurisdictions, while sustainability is implicitly part of their fiduciary duties, under existing laws, asset managers are not yet explicitly required to ask their clients for their sustainability preferences and/or to reflect these in the investment decisions they make. As a result, unless clients explicitly reference their preferences in their investment mandate there is a risk that asset managers will not ask their clients about their sustainability preferences or explore why the consideration of sustainability risks and opportunities could matter to them.

Leadership from the top doesn't always translate into action on the ground

As set out above, many large asset managers have displayed thought leadership when it comes to the importance of accounting for long term sustainability issues. Such leadership is to be commended, but it also needs to be translated into actions by portfolio managers and engagement teams if real impact is to be delivered. Yet this leadership does not always correlate with an ambitious approach to integration, engagement and voting. For most companies, the signals received from the individual fund managers are key to the perception of weight accorded to sustainability and act as a major stimulus or barrier to progress by the corporate sector. According to a recent analysis of last year's shareholder resolutions, for instance, eight of the top ten asset managers voted less than half of the time in support for key climate proposals in 2017, as set out in Table 1 (page 44). Another report finds that cases where large asset managers voted both in favour and against virtually identical climate-resolutions filed at different companies.9

In some cases, there will be valid reasons to vote differently across different proposals, in others, however, it is hard to identify a coherent reason for inconsistency. Similarly, just one of the top 10 asset

managers (in AUM) has joined the Climate Action 100+ coalition. 100

Lack of comparable, consistent and timely corporate disclosure on ESG risk, opportunity or impact

Among the largest companies in the world, rates of reporting are reasonably high, with the most commonly adopted standard being the GRI G4 guidelines, and, in the case of climate change, the CDP. Disclosure rates drop off rapidly, however, outside those major entities. Through third party data providers significantly wider coverage can be achieved, but at a cost. This lack of comparable, relevant information is one of the most frequently cited barriers to greater integration by asset managers.

4. Lack of transparency and accountability over voting and engagement on ESG issues

One barrier is the lack of clarity in the asset managers' proxy voting policies with respect to ESG and long term sustainability considerations. This has somewhat progressed over the past two years, and some of the world's largest asset managers have started updating their policies to make the reference more explicit, in part because of shareholder pressure. 11 Yet unless it comes with greater transparency over how these principles have been applied in practice, investors remain in the dark as to how these principles were enforced. Some of the world's largest asset owners have expressed frustration over this lack of transparency, with one calling on its external asset managers to disclose voting records at the individual agenda item level and warning that compensation will be tied to their performance on corporate governance. 12

⁹ https://shareaction.org/press-release/investors-inconsistent-climate-votes/

¹⁰ The initiative aims to "engage with the world's largest corporate greenhouse gas emitters to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures". As of time of writing, the initiative involves 279 investors, collectively representing nearly US\$30 trillion of AUM.

¹¹ Vanguard updated its policy in 2017, for instance, in part as a result of the backlash by investors and shareholders over its 2016 vote against the Exxon and Chevron shareholder resolutions calling for a 2C stress test by these companies

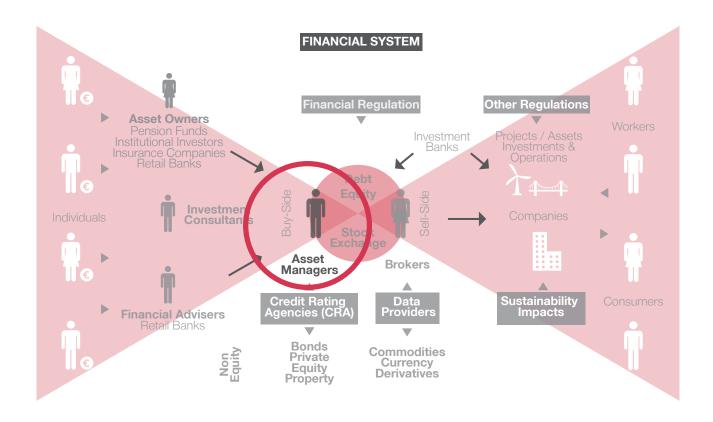
¹² The asset owner in question is GPIF, the world's largest pension fund. https://www.responsible-investor.com/home/print/qpif esq1/

5. Shift to passive investing

Recent years have seen the rapid growth of a passive management approach to investment. While this can come with some advantages for asset owners (notably in the form of lower fees), passive management reduces the asset manager's ability to divest from certain companies or sectors. The shift towards passive investing thus requires new approaches to ensure that asset managers are able to align their portfolio with sustainability objectives. New indices are emerging which offer 'tilts' and incorporate ESG factors, but the core market indices which are most commonly used do not. It is also clear that passive investing will require more proactive engagement and transparency over voting by asset managers.

6. Incentives to focus on the short term

There remains a focus on assessing the performance of funds on a quarterly basis. If performance diverges from the relevant benchmark, this can pose challenges to trustees considering how long they should accept disappointing relative performance before acting. Some asset owners are amending the reward and incentive structures within mandates to overcome this barrier, for example, ERAFP. For many, however, as one asset manager has said, "It is like being hauled before the headmaster on a quarterly basis". This pressure to deliver in the short term inevitably reduces the ability of asset managers to integrate ESG issues across all funds, in particular for those risks and opportunities which have clear financial materiality in the future, but not at present.





Innovation spotlight: a responsible investment standard

If a consumer wants to make sure their pension or savings are invested sustainably, it's difficult to get a clear idea of what financial firms offer and even harder to compare them – there is no simple seal of approval they can look for. This is because there are no standards to which investors can be accredited to assure their clients that its investment approach is both long term and responsible.

We believe there is a need to go further to develop a kite mark in responsible investment – the equivalent to an energy rating or a fairtrade standard – so that companies can differentiate themselves on responsible investment grounds and investors can make informed, responsible investment decisions.

The standard should be auditable and voluntary and could include requirements to report to clients how they integrate sustainability into their investment decisions, how they monitor firms' sustainability performance, how they exercise their voting rights and how they engage with companies in their portfolio.

The UK Government has announced work with the Green Finance Initiative and the British Standards Institution to develop a new set of voluntary green and sustainable finance management standards, working closely with industry.

Other countries could build on this and take a leading role in driving this standard forward, pushing for action by the International Organization for Standardization (and its national equivalents).



Recommendations

For asset managers:

- Make the inquiry about clients' sustainability preferences a standard exploration of getting to know the client.
- Develop internal competence on matters related to sustainability so as to exercise stewardship in an effective manner.
- Inform and advise clients on long term systemic threats and opportunities, including ESG issues, as well as those relating to overall economic development, financial market quality and stability.
- Update and publish voting policies to reflect ESG considerations and long term sustainability risks
 and opportunities. This should include a commitment to engage investee companies and demand
 from them transparent reporting of relevant and material sustainability factors in relation to their
 business strategy, operations and risk, including the most significant parts of their supply chain.
- Integrate long term sustainability considerations into risks modelling and investment strategies, starting with the application of the TCFD guidelines.
- Disclose proxy votes publicly and report back to clients on the specifics and impact of the engagement that has been undertaken on their behalf.
- Ensure their board has the required knowledge of sustainability and ESG issues, and that there is a sufficient level of senior oversight and accountability in relation to integration of ESG.

For asset owners:

- Make the consideration of long term sustainability risks and opportunities an explicit part of the investment mandate and asset manager selection process.
- Tie remuneration of the asset manager to the effectiveness of their engagement on ESG and management of long term sustainability risks.

For regulators:

- Make explicit the fact that the consideration, evaluation, and disclosure of long term sustainability risks and opportunities are an integral part of an asset manager's fiduciary duty to its clients.
- Establish an equivalent of France's Article 173, or an obligation for asset managers to disclose how sustainability is taken into account in their investment strategies and product offerings, and report on the resulting performance.
- Request the boards of asset managers develop a competence on sustainability and governance issues, as well as establish organizational principles and reward structures that encourage long term oriented behaviour.

For all actors:

Work together to set up common standards and labels that enable investors to quickly identify
which type of financial products or offerings are aligned with the SDGs, including the Paris
Agreement.



4. INVESTMENT CONSULTANTS

In their role advising pension funds and other asset owners, investment consultants influence the allocation of trillions of dollars of assets.



Investment consultants play a key role as advisers to asset owners, in particular pension funds, many of whom place considerable trust in the views provided. They provide strategic advice to pension fund boards about asset allocation and develop plans for how asset owners can achieve the performance they need to match liabilities. The advice from investment consultants is also used to construct mandates for asset managers and they often assess asset manager strategies and/or help asset owners to select asset managers for mandates. This is particularly the case in the UK, the United States and Canada, but consultants are also increasingly playing a role in France, Germany, Italy, and Spain, among other countries.

In their role advising pension funds and other asset owners, investment consultants influence the allocation of trillions of dollars of assets. Through their growing role as fiduciary managers, they also manage significant funds on behalf of their clients. Being able to articulate a strong investment process that impresses investment consultants is of central importance to asset managers. To win business, asset managers need to convince investment consultants that they have the people, investment philosophy and investment process that should deliver consistent performance aligned to the requirements of the asset owner. Consequently, asset managers spend a considerable amount of time and effort on the areas that investment consultants rate as important aspects of a good process.

Given their influence, both on pension funds and on asset managers, attitudes expressed by investment consultants send a powerful signal along the investment chain driving the adoption of sustainable investment or acting as a powerful brake on action taken.

CURRENT ACTIONS

Key actions taken by the investment consulting community to support a shift towards sustainable finance are summarized below.

1. Membership of global industry groups

A number of investment consultancy firms are members of the UN PRI, including Aon, Willis Towers Watson and Mercer. In addition, Mercer Partner Jane Ambachtsheer is a member of the TCFD, a member of the PRI Academic Working Group, and a Trustee of the CDP, while Aon is a member of the Cambridge Institute of Sustainability Leadership (CISL) Investment Leaders Group.

2. Thought leadership

A wide range of research and thought leadership has been published by the investment consultant community, for example:

 Aon has developed two climate change impact scenarios for modelling client portfolios, published a number of papers and articles, including white

- papers on green bonds, a guide to responsible investing and quarterly client newsletters. It also launched its first global Responsible Investment Survey in December 2017¹.
- Mercer published research papers on Climate Change Scenarios in 2011, along with papers on assessing climate risk in portfolios in 2015 and 2017.²
- Willis Towers Watson has published recent reports on evidence for sustainability performance and responsibility 'megatrends'.
- Callan Associates has published an ESG survey every year since 2013 that provides insight into the practices of US-based institutional investors.³
- Cambridge Associates in 2017 published "Considerations for ESG Policy Development based on Purpose, Priorities & Principles".⁴
- Lane Clarke & Peacock LLP (LCP) produced a review of ESG in practice by interviewing asset managers.





¹ https://www.aon.com/responsibleinvestment

² https://www.willistowerswatson.com/en/insights/2018/02/sustainable-investment-show-me-the-evidence; https://extranet.unpri.org/press-releases/pri-undertakes-work-withwillis-towers-watson-on-megatrends

³ https://www.callan.com/wp-content/uploads/2017/11/Callan-2017-ESG-Survey.pdf

⁴ https://40926u2govf9kuqen1ndit018su-wpengine.netdna-ssl.com/wp-content/uploads/2017/06/Considerations-for-ESG-Policy-Development-and-Paris-IPS-Template.pdf

⁵ https://www.lcp.uk.com/our-viewpoint/2017/08/responsible-investment-in-practice/

3. Advice provided to clients

Investment consultants' potential key role in transforming finance is in steering the trillions of dollars of assets they advise on, or manage, in a more sustainable direction. There is some evidence that they are starting to build their capacity to advise on this basis, for example:

- Aon's Global Investment Management team has developed ESG ratings to inform clients of how its underlying asset managers are approaching ESG integration, with reference to the framework provided by the six UN PRI principles.
- Mercer has had a dedicated Responsible Investing team since 2004. Its global manager research team evaluates more than 5,000 investment manager strategies on their integration of ESG factors, working toward full ESG ratings coverage for all rated strategies across geographies and asset classes.
- Redington helped HSBC Pension Fund to develop the 'Future World Fund', working with FTSE Russell and LGIM, an equity fund which takes into account long term risks arising from climate change designed as the default DC scheme.⁶

6 http://www.redington.co.uk/how-we-can-help/case-study-sustainable-investments/

 Smaller investment consultancies have been established focused on sustainable investment.
 Conser Invest, for example, is a Swiss investment advisory firm dedicated to responsible investment.
 They assess portfolio/investment risk and critical sustainability issues using their proprietary methodology that they say provides the most representative market perception of an investment's sustainability risk.

These instances are not, however, indicative of a wider trend of all consultants systematically including ESG issues in the core advice they provide to asset owners. A comprehensive study⁷ undertaken by PRI published in December 2017 found:

Most consultants and their asset owner clients are failing to consider environmental, social and governance (ESG) issues in investment practice – despite a growing evidence base that demonstrates the financial materiality of ESG issues to portfolio value.

7 https://www.unpri.org/download?ac=4394







BARRIERS

1. No regulatory requirement for investment consultants to incorporate sustainability issues in advice

Investment consultants are relatively unregulated compared to other financial sector actors – particularly so given their power to influence the allocation of such a significant portion of global financial assets. There are very few examples of regulations encouraging investment consultants to ask asset owners proactively about their ESG preferences, or to integrate ESG considerations systematically into their recommendations and analysis of asset managers. In the absence of regulation on one side, or consistent demand from asset owners, there are limited incentives in the current system for investment consultants to integrate sustainability systematically into their work.

 Limited explicit demand from asset owners for investment consultants to integrate sustainability issues into their advice

In the absence of regulatory requirements, the degree to which investment consultants take into account factors relating to the long term sustainability of companies is dependent on the degree to which their clients — pension fund trustees and other asset owners — wish to take them into account. For the reasons outlined in the previous chapter, some asset owners continue to disregard sustainability issues in their instructions to investment consultants. This can be due to issues including:

- The association that some asset owners have that ESG is politically motivated or is only ever going to affect performance negatively.
- The association that asset owners have that ESG is not consistent with fiduciary duty.
- For pension funds, competing priorities for Trustees who do not meet often, meaning that from a governance point of view they are limited in the time they have to understand and address ESG factors.

- Because the resources (especially time and expertise) of pension funds are always limited, the capacity to implement changes is necessarily constrained. This typically means that investment consultants are incentivized to deliver solutions that reflect 'slight variations on familiar themes', rather than changes that may involve a greater degree of innovation. Consequently, change aversion hampers sustainable investment.
- Some feel that decisions in this area are the responsibility of their fund managers.

In some cases, asset owners may be open to exploring the integration of environmental and social issues, but may not be aware of the approaches being adopted by others, or the funds available. A 'catch 22' appears to exist – investment consultants (and asset managers) may not proactively propose a sustainable investment approach if they have not been explicitly asked to do so by the asset owner, while asset owners may not have the knowledge or confidence to ask what options exist. This issue is exacerbated by lack of knowledge among some investment consultants, who do not feel confident in raising sustainability matters if they do not have depth of experience, even where they have colleagues who do.

The PRI finds that "in too many cases, consultants and their clients simply don't talk about ESG issues."8

 Availability of comparable, high quality, long term data on sustainability performance of individual assets and asset managers

Even where investment consultants are motivated to integrate ESG analysis into their advice, they are limited by the quality and comparability of ESG information available in the financial system, both on the performance of individual assets and of asset managers.

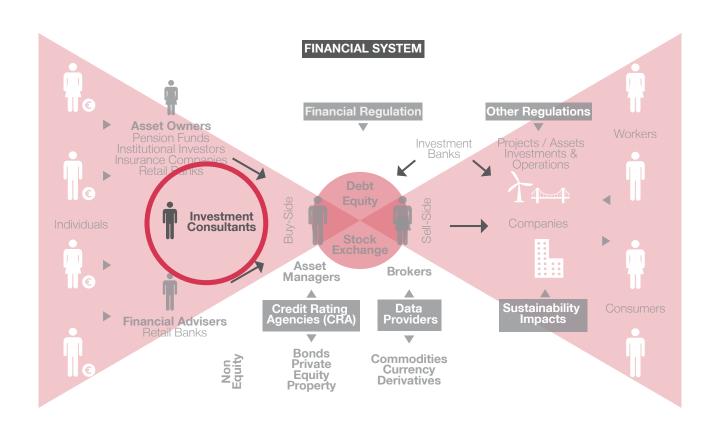


⁸ https://www.unpri.org/download?ac=4394

4. Fee structures which can disincentivize integration of ESG into advice

Because asset owners may not be willing to pay explicitly and directly for 'sustainable investment' services, many investment consultants may not be adequately incentivized to develop such capacity, even if it might provide a long term advantage. The structure of fees that investment consultants receive (especially margins and internal redistribution of fees across the firm) inhibits long term research on, and cultivation of, solutions that do not realize a near term return, in particular where additional expertise, and therefore cost, might be needed to deliver the solution.









Recommendations

For investment consultants:

- Proactively ask asset owners if they have ESG preferences as part of standard service.
- Proactively assess prospective asset managers' ESG credentials as part of selection /recommendation process.
- Share analysis with asset owners demonstrating that ESG integration can improve long term performance.
- Join industry groups to learn about and contribute to ESG integration.
- Adopt leading practice in relation to role as fiduciary managers.
- Integrate ESG into the recruitment criteria for new hires, and incorporate into mandatory training for existing team members to build internal capacity.
- Ensure all consultants are well informed about recent developments in the ESG space, for example the work of TCFD.

For asset owners:

• Include ESG competence and performance in the selection criteria for investment consultants.

For policymakers and regulators:

Consider regulation to:

- Encourage investment consultants to integrate ESG in their processes as set out above, including proactively raising ESG issues with clients.
- Clarify that fiduciary duty for asset managers includes ESG issues.
- Incentivize more research from the sell side into long term / ESG investments.
- Disincentivize investment consultants from proactively turning over asset managers to generate fees.
- Establish a 'Fairtrade for finance' standard to show which asset managers are investing responsibly.

For all actors:

• Support the establishment of a finance product standard to provide clear signalling to institutional and retail investors.



5. BANKS

Banks' triple role of adviser, facilitator and market player makes them critical in aligning finance with sustainability. Their sheer size also means that decisions made have significant impact on outcomes achieved.



Banks' triple role of adviser, facilitator, and market player makes them critical in aligning finance with sustainability. Their sheer size also means that decisions made have significant impact on outcomes achieved. To give a sense of scale, as of 2017, each of the 23 largest banks in the world had more than US\$1 trillion of assets on their balance sheet.¹

As providers of research to asset managers, banks have the opportunity and responsibility to ensure their clients are aware and informed of the long term sustainability risks and opportunities within their clients' portfolio. The production of sell side research is an important basis for that advice and is key to helping form market players' understanding of the trends shaping the economy and the markets.

As facilitators of deals, investment banks can ensure that the transactions they help arrange have undertaken a proper assessment of the long term sustainability risks and opportunities. Much like with other actors in the investment chain, this will require them to inquire about the sustainability preferences of their clients – whether they are material or not – and to ensure these are reflected in the way the deal is structured. It will also require them to update their due diligence process to ensure material exposure to sustainability risks and opportunity is properly assessed and disclosed.

Investment banks can also ensure their facilitation of the growth of a sustainable financing market segment (for example green bonds and sustainable bonds) comes with the alignment of their own investment with sustainability objectives. This will require banks to track, evaluate and disclose the sustainability risks they might be exposed to and how they intend to address them. This is particularly important given the potential macroeconomic and financial stability implications of having a banking system with high exposure to sustainability related risk, including climate related ones. Recent discussions have also taken place to assess whether it might be necessary for central banks to adjust capital requirements in order to reflect the degree to which a particular investment increases or reduces exposure to long term sustainability risk.

Retail banks have a direct interface with savers, borrowers and individual investors. This gives the opportunity to provide appropriate advice and incentives to customers through consideration of sustainability within their personal savings, investments and pension provision products, as well as in their provision of loans and financing, for example offering preferential loan rates for 'green' mortgages to more energy efficient homes.

¹ http://www.snl.com/web/client?auth=inherit#news/article?id=40223698&cdid=A-40223698-11568







CURRENT ACTIONS

As with other actors, there is a range of examples of action being taken.

 Research into the connection between sustainability issues and finance

On the research side, impactful sell side research on sustainability issues has been undertaken by a number of investment banks. For example, Barclays has looked at the potential effect of changes in climate policy on German utilities² and Bank of America Merrill Lynch recently produced a series of in depth research pieces demonstrating that ESG practices may improve a company's financial performance.³ HSBC and Morgan Stanley have, respectively, established a Centre of Sustainable Finance and an Institute for Sustainable Investing to produce thought leadership pieces and promote sustainable finance.

Incorporating sustainability risks and opportunities into their analysis of loan portfolios and stress testing

A 2018 Boston Common Asset Management survey⁴ found some evidence of banks beginning to integrate sustainability information in their analyses of loan portfolios. It found a small number of banks – including JP Morgan, PNC and UBS – have begun performing environmental stress tests of their loan portfolios. PNC, for example, looks at how certain environmental risks, such as carbon emission regulations and a lower demand for oil, would affect a specific customer portfolio, including the probability of default and loss. Other banks are looking at the risks resulting from the physical impacts of climate change on mortgages. However, the study finds "this field of quantitative climate risk analysis is still in its infancy".

16 banks⁵ have formed a partnership with the UN to develop guidance to help banks better manage and

2 http://www.longfinance.net/images/reports/pdf/Barclays-%20German%20Utilities%20 Scoping%20the%20Tragedy%20of%20the%20Horizon%202016%20(1).pdf be more transparent about the risks and opportunities that the transition to the low carbon economy presents, building on the recommendations of the TCFD.⁶

 Facilitating financing towards sustainable investments and away from unsustainable investments and incorporating into own lending

Banks have shown a willingness to facilitate the financing of investments in sustainable projects. For example, UBS has set a target of US\$5 billion of client assets invested into new impact investments by the end of 2021, and has said it will not do business with companies associated with specified types of severe environmental or social damage.7 Standard Chartered has pledged to fund and facilitate at least US\$4 billion toward clean technology between 2016 and 2020.8 Goldman Sachs also have a target of US\$150 billion in financing and investments by 2025 to facilitate the transition to a low carbon economy9, while Morgan Stanley has committed to financing clean tech and renewable energy efforts by investing US\$250 billion in low carbon solutions by 2030.10 ABN Amro wants to finance EUR 1 billion of circular transactions by 2020,11 and for all the real estate they finance (EUR 185billion in financing) to have on average energy label A by 2030.12

Some exclusions for the bank financing of the most high carbon sectors (such as coal and oil sands) are becoming an industry norm – 71% of banks responding to the Boston Common survey previously cited have adopted public exclusion policies linked to such carbon intensive practices.



³ https://www.bofaml.com/en-us/content/esg-socially-responsible-investing-strategies.html

⁴ http://news.bostoncommonasset.com/wp-content/uploads/2018/01/Banks-begin-to-model-climate-risk-in-loan-portfolios-Risk-2.pdf

⁵ ANZ, Barclays, BBVA, BNP Paribas, Bradesco, Citi, DNB, Itaú Unibanco, National Australia Bank, Rabobank, Royal Bank of Canada, Santander, Société Générale, Standard Chartered, TD Bank Group and UBS.

 $[\]label{lem:control} 6\ https://www.unenvironment.org/news-and-stories/press-release/16-banks-and-united-nations-produce-first-guidance-help-banking$

⁷ https://www.ubs.com/global/en/about_ubs/ubs-and-society/download-center/2017/_jcr_content/par/columncontrol/col1/linklist/link.1162596428.file/bGluay9wYXRoPS9jb250ZW50L2RhbS91Yn-MvZ2xvYmFsL2Fib3V0X3Vicy91YnMtYW5kLXNvY2lldHkvdWJzLWFuZC1zb2NpZXR5LWFyLWVuL-TlwMTcucGRm/ubs-and-society-ar-en-2017.pdf

⁸ https://www.sc.com/en/sustainability/position-statements/climate-change/

⁹ http://www.goldmansachs.com/s/environmental-policy-framework/index.html

¹⁰ https://www.morganstanley.com/about-us/sustainability-at-morgan-stanley

¹¹ https://www.abnamro.com/en/sustainable-banking/our-focal-points/circular-economy/index.html

 $^{12\} https://www.abnamro.com/en/sustainable-banking/our-focal-points/climate-change/sustainable-real-estate/index.html$

There has also been significant growth in green bonds, growing from US\$11 billion in 2013 to US\$155 billion in 2017.

Incorporating sustainability risks and opportunities into banks' own lending and broader practices

A range of banks have adopted exclusionary policies in relation to high impact sectors including high carbon and tobacco. For example, JP Morgan stopped financing coal fired power plants in certain countries in March 2016 after analysing the impact of climate change regulations on its global power portfolio, and UBS has limited its lending appetite in certain carbon related industries, such as coal. Bank of America has provided over US\$70 billion to low carbon and sustainable business activities since 2007, and has a target to direct US\$125 billion in capital by 2025 to address climate change and demands on natural resources.

In addition, a range of banks have started to include sustainability performance covenants as part of their corporate loans and credit facilities, with a discount applied subject to the company meeting a range of sustainability related performance metrics. A recent example is Olam's US\$500 million sustainability linked club loan facility with ING as sustainability coordinator. Another is the EUR600 million revolving credit facility with Stora Enso, with BNP Paribas, Citi and SEB acting as coordinators. Pennon Group has similarly started to incorporate ESG performance criteria as part of financing activities under its sustainable finance framework.

Overall, however, last year's Boston Common survey of climate management by 59 of the world's largest banks¹⁴ found "the sector is failing to capture the risks and opportunities of climate change". The report demonstrates that while a large number of major banks are taking some action in this area, however, there remains a significant number which are not:

- 13 http://news.bostoncommonasset.com/wp-content/uploads/2018/01/Banks-begin-to-model-
- 14 http://news.bostoncommonasset.com/banking-on-a-low-carbon-future/

- 54% of banks support the TCFD recommendations, but pace of alignment is slow.
- Just under half (49%) of banks are implementing climate risk assessments or 2°C scenario analysis.
- Despite widespread disclosure of their low carbon products and services, only 46% of banks set explicit targets to promote such products/ services.
- A majority of banks (61%) do not restrict the financing of coal – the most carbon intensive energy source. The global banking sector provided US\$600 billion in financing for the top 120 coal plant developers between 2014 and September 2017.
- Only two in five banks (41%) ensure the trade associations or industry groups of which they are members of adopt progressive climate policies.

A 2017 ShareAction survey of the top 15 European Banks¹⁵ found a similar picture, identifying particular failures in transparency of high carbon risk exposures, aligning bank policies to the Paris Agreement and engaging with clients on climate risk. The report found French banks tended to perform better, driven by stronger regulation.

15 https://shareaction.org/investors-need-to-know-banks-climate-change/





climate-risk-in-loan-portfolios-Risk-2.pdf

BARRIERS

1. Sell side research is short term focused and analysts often face conflicts of interest

Most research produced on the sell side by investment banks remains too short term to account properly for ESG issues and longer term sustainability considerations. Mainstream analysts, for instance, spend nearly 90% of their time focused on a time horizon of 12 months or less, according to a recent survey of global equity sell side analysts by EXTEL, commissioned by Aviva Investors. The same survey finds that while many analysts would like to focus more on long term sustainability issues¹⁶, many feel constrained by how exploring those issues - and raising the flag about sustainability risks where appropriate - might affect their banks' relationships with clients as well as their own individual career prospects. Given the importance of research in informing investment decisions¹⁷, a change of corporate culture is urgently needed to deliver independent research that properly accounts for long term sustainability considerations.

2. Lack of comprehensive, robust, comparable data on corporate sustainability performance

As with other sectors, a major barrier faced by banks seeking to drive improved sustainability outcomes and reduce exposure to ESG risks relates to a lack of data. In the context of research, this is a factor reducing the ability of analysts to focus on the consequences of sustainability trends on businesses. Similarly, banks have found significant data gaps when seeking to analyse the exposure within their loan books to climate risk.

The impact of sustainable investments is not always tracked

The rise of the green bond market has been a useful driver in delivering a combined approach of revealing clients' sustainability preferences and improving alignment with sustainability. The reporting of the actual impact of those bonds, while on the rise, remains limited however. Many of these evaluations happen at the time of issuance, for instance, leaving some investors in the dark about the actual impact of projects once financed. In fact, while the proportion of bonds reporting on their impact has grown over time, it remains relatively low overall, with just 38% of the climate aligned green bonds that did reporting having some form of impact disclosure in place (as of April 2016).18 It is therefore essential for banks to measure accurately the sustainability impacts and exposures of the projects they finance and to staff their sustainability teams appropriately to do so.

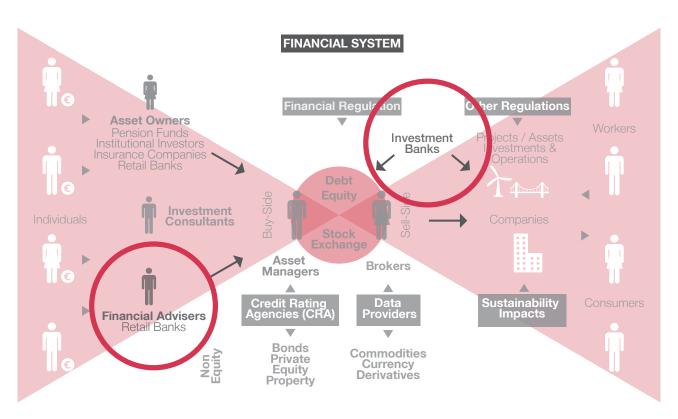
4. Market failures prevent a proper reflection of sustainability risks

Without a proper pricing of externalities, it is challenging for banks to account fully for the risks associated with the underlying projects of the deals they help structure or finance. Aggregated, this translates into a macroeconomic exposure to sustainability risks. In a context of market failure, therefore, it might be necessary for a central bank regulator to consider adjusting capital requirements to reflect the additional risk that comes with the absence of pricing.



 ^{16 42%} of the analysts surveyed agreed sell side research has a detrimental short term focus
 17 Nearly 2 in 3 investors (62%) agree that sell side researches influences their investment decisions.

¹⁸ The study, by Climate Bonds Initiative, covered bonds outstanding as of April 2016, representing 191 bonds for a total of USD 66bn.







Issue spotlight: sell side research

Aviva Investors commissioned an independent, online survey of global equity sell side analysts and a series of anonymized one to one interviews with analysts and heads of research. The survey sought to determine answers to the following questions from the perspective of a mainstream sell side analyst:

- 1. How influential is sell side research?
- 2. How do you rate the quality of sell side research?
- 3. What are the barriers and constraints to long term, broad based research?

Key findings

The current system does not encourage or reward sell side analysts for producing long term, broad based research that also considers a company's ESG performance. Reasons for this include:

- Analysts perceive that the buy side is not asking for long term research / coverage of broader themes.
- Many analysts would like to provide more in depth research, but are unable to do so because of commercial conflicts of interest and time spent on non-research activity.
- Analysts can also receive external pressure from company management and investor relations.
- Analysts do not routinely see companies and management telling the long term story or building ESG performance into their overall strategy.

The research demonstrates that it would be very difficult for an individual analyst or research team to overcome these pressures to focus on the short term and maintain a successful research franchise. Essentially, the sell side is behaving rationally within an irrational system. Some key statistics from the study include:

- Only 12% of mainstream sell side analysts' time is spent researching companies' prospects beyond a 12 month horizon.
- 42% of analysts agree that sell side research has a detrimental short term focus.
- Only 35% agree sell side research tackles controversial topics and offers negative assessments of companies where appropriate.
- 90% of analysts would undertake some additional caution when writing on topics sensitive to their bank.
- Over a third of respondents readily acknowledged the need to avoid damaging investment banking relationships if they are to have a successful career.

1 https://www.avivainvestors.com/content/dam/aviva-investors/united-kingdom/documents/institutional/research-brave-new-world.pdf



Recommendations

For banks:

- Proactively ask about both retail and corporate clients' ESG preferences.
- Establish clear policies that will direct capital towards sustainable outcomes covering both corporate and other forms of lending making it clear when targets relate to a bank's own lending.
- Set loan covenants relating to sustainability performance.
- Consider mechanisms to set a differentiated pricing structure to reflect risks associated with ESG.
- Engage with customers, and in particular smaller companies, to support them to move towards more sustainable business models.
- Ensure that the capital markets team provides advice to companies that reflects a need to integrate ESG risks, including within marketing materials, and engage investors on the need for ESG risks to be included.
- Make ESG a formal part of all term sheets.
- Ensure the bank's and its clients' material exposure to sustainability risks and opportunity is properly assessed and disclosed.
- Consider challenging house brokers to integrate ESG into their own ratings.
- Increase long term research and analysis.
- In conjunction with academia and policymakers, assess the extent to which commonly used valuation metrics, for example Discounted Cash Flow (DCF), incentivize unsustainable investments, and develop and utilize alternative metrics.

For regulators:

- Consider ways to encourage long term ESG research under research payments and direct fund managers to raise this issue proactively with their clients.
- Explore the establishment of a requirement for all sell side company research to include a section that looks beyond 12 months and to include a specific ESG performance analysis section.
- Amend current research disclosures so that all investment firms must disclose the proportion of their research budget, whether they fund this from their own resources or via an RPA, that has been spent on sustainability focused research in the past 12 months.
- Ensure that banks track, assess and disclose their alignment with sustainability objectives, starting with climate change. As part of that effort, regulators should help support the adoption and implementation of the TCFD guidelines, including the use of scenarios and, potentially, stress tests.
- Ensure the prudential framework for banks effectively incorporates long term sustainability risks to financial stability such as climate change.



6. CREDIT RATING AGENCIES

Credit Ratings Agencies play a central role in determining the cost of debt. The integration of ESG into ratings processes therefore is a major influence on corporate behaviour and on investment allocation.



Investors rely on the information provided by Credit Rating Agencies (CRAs) to inform their investment decisions on bonds and other forms of credit. Whether and how CRAs build ESG factors into their assessments can therefore impact how attractive a bond or other type of debt is to a lender, and therefore on the cost of credit for a company.

The integration of ESG into investment decisions is not just a matter of risk, it is also about capturing growth opportunities. Those identified in a meta study of ESG in investment grade corporate bonds include: additional returns and alpha through the capitalization of an ESG factor premium, lower portfolio volatility, higher credit ratings, and lower credit spreads. 1 A recent study by Barclays of US corporate bonds, for instance, found that "introducing ESG factors into the investment process resulted in a small but steady performance benefit".2 In addition to the appropriate integration of ESG in credit ratings, action should be taken to deepen the market for independent ESG

ratings thus providing valuable information to the financial system.

Integrating ESG considerations into credit ratings where material to credit risk would therefore also help direct funding towards more sustainable companies and products, reducing the financing gap and contributing to delivering the Paris Agreement and the SDGs.

The push for climate related disclosures represents a unique opportunity for CRAs to integrate material environmental issues into their methodology and, in doing so, decrease the risk for investors who integrate ESG considerations into their debt portfolio. Again, because of their access to the issuer's senior management, the role of CRAs is pivotal in influencing increased and better disclosure of their ESG risk.





¹ Allianz Global Investors. "ESG in Investment Grade Corporate Bonds (IGFI)". Aug 2016. 2 https://www.investmentbank.barclays.com/our-insights/esg-sustainable-investing-and-bond-re turns.html

CURRENT ACTIONS

1. Integrating ESG factors into ratings

Increasingly, studies and CRAs themselves are recognizing that ESG factors can affect borrowers' cash flows and the likelihood that a borrower will default on their debt obligations.¹

There are some examples of this integration happening²:

- In 2012, S&P introduced references to the management of environmental and social risks and the oversight of these risks by a company's board of directors in the Management and Governance section of its credit rating methodology. S&P says it can point to 106 examples over the last two years where environmental and climate concerns—both event driven and those occurring over a longer time horizon—resulted in a change of rating, outlook or CreditWatch action.
- Moody's Investors Services clarified its approach to integrating ESG into its rating methodology in 2015, stating that it reflects ESG considerations in its holistic assessment of credit risk through scored and non scored factors, with a focus on 14 sectors with high or very high carbon transition risk (for example, coal, oil and gas, building materials, steel, utilities and airlines). Their ESG capacity building in terms of methodology, research and data is focused on increasing the systematic and transparent incorporation of material ESG risks into traditional credit ratings.
- By signing the PRI's ESG in Credit Ratings
 Statement, Moody's Corporation and S&P Global
 Ratings have committed to incorporating ESG
 into credit ratings and analysis in a systematic and
 transparent way.

However, the full integration of material ESG considerations in ratings needs to be made more explicit in industry practice, in order to maintain confidence that the credit risk of ESG has been captured. CRAs have

compensated for this shortcoming by hiring additional ESG analysts and ESG teams, although the extent of action varies across different CRAs. As the sponsor of the research into CRA's integration of ESG cited above, Neuberger Berman, concludes, "much more needs to be done".³

Providing information (distinct from standard credit ratings) on ESG

In addition to some activity by the largest CRAs to increase the systematic and transparent integration of ESG factors in their traditional ratings, they have also engaged in providing additional ESG information. For example:

- In 2015, Moody's Investors Service launched a new Green Bonds Assessment evaluation and research service with the aim to "promote further disclosure and transparency in a market segment in which process oriented green bond practices have become more varied". The agency also hoped to "set a standard for green bond issuance across sectors and geographies".4
- In 2015 S&P Global Ratings issued a proposal for an ESG Evaluation tool as well as for a Green Evaluation tool. These products would be separate from the core credit rating, intended to give greater insight into ESG or environmental matters. To date, only the latter has been launched.⁵

Specialist providers such as ISS-oekom, Sustainalytics, Vigeo Eiris, FTSE Russell have been offering ESG second opinions or ratings for some time. On the equity investment side, S&P Global Ratings' arm Dow Jones Indices offers an ESG Index which spans the environmental, social, and governance spectrum. The list of providers of the main ESG indices includes: MSCI, S&P Dow Jones Indices, FTSE Russell, NASDAQ and STOXX.



¹ PRI – Statement on ESG in credit ratings: Available here

² Both examples from https://www.nb.com/pages/public/global/insights/rating-the-raters-on-esg.

³ ibid

⁴ https://www.moodys.com/research/Moodys-launches-new-Green-Bond-Assessment-service--PR 346590

⁵ https://www.spratings.com/documents/20184/1481001/Green+Evaluation/bbcd37ba-7b4f-4bf9-a980-d04aceeffa6b;

http://img.en25.com/Web/StandardPoorsRatings/NewGreenBondAndESGEvaluation.pdf

BARRIERS

1. Short term time horizon

The time horizon of credit risk analysis is often seen as being too short to account fully for longer term sustainability considerations. 6 CRAs face challenges in integrating the impact of long term risks, partly because the uncertainty of risks increases as timeframes lengthen, while their importance diminishes relative to other more tangible risks. A longer timeframe also provides companies with greater capacity to take mitigating (or self damaging) actions. For example, corporate issuers with sufficient financial strength have an ability to shift into a new industry without incurring losses for creditors if the demise of their existing industry is foreseeable and gradual. But even such stronger credits face a risk that mitigating actions will not be initiated soon enough if the company seriously underestimates the pace of change. And certain longer term risks, such as that of climate change, will be beyond the ability of any single company to mitigate or even adapt to.

2. The way ESG issues are considered in credit rating is unclear to market participants

As mentioned above, CRAs consider some ESG issues within their credit ratings and provide complementary evaluations for aspects they do not see as material over the time horizon of their analysis. However, there are two important limitations to the current approach.

First, there is an imbalance in the way ESG factors are reflected within methodologies. For instance, while there is some correlation between ESG and credit ratings, thus showing that, to some extent, ESG aspects are taken into account, there has typically been a greater focus on governance aspects. Some of this imbalance is due to the time horizon, yet also suggests more work needs to take place to reflect

6 E.g. see Credit Ratings section in EU High Level Expert Group's report

better the micro and macro risks related to environmental and social issues, as well as the new information that will become available through disclosure efforts such as recommended by the TCFD.

Second, the production of complementary ESG ratings or outlooks only partially addresses the issue, as investors often admit to being confused as to how ESG is considered by CRAs. As a recent PRI study on the integration of ESG factors notes, "Many of the hurdles in the way of systematic and transparent incorporation of ESG factors in credit ratings and analysis can be ascribed to how credit risk related information is conveyed." Better communication and transparency on how ESG considerations are considered will thus be increasingly necessary on the part of CRAs.

3. CRA regulation has yet to be updated to reflect sustainability considerations

Regulation plays an important role in ensuring CRAs' neutrality and independence. The last major regulatory push on CRAs dates to the financial crisis. Since then, major international agreements have been reached on the expectations that governments have over the role that the financial system can play in delivering sustainability objectives. Article 2 of the Paris Agreement, notably, reflects the global objective of "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development". Similarly, and more specific to CRAs, the UN Addis Ababa Action Agenda supports "greater transparency requirements for evaluation standards of credit rating agencies."

Regulators have been slow to reflect these considerations into their regulations. In the EU, for instance, the latest amendments to the EU regulatory regime for CRAs date back to 2013. As a result, none of the recent political decisions critical to long term sustainability (for example, the Paris Agreement, SDGs, Addis Ababa Action Agenda) nor any of private sector led initiatives pertaining to it (for example TCFD, PRI statement on ESG in credit ratings) are reflected in the current regulatory regime.

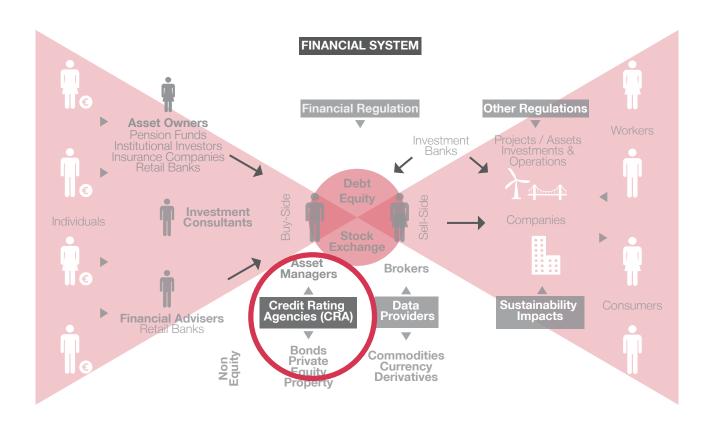


⁷ Capelle-Blancard, G., Crifo, P., Oueghlissi, R., & Scholtens, B. (2017). Environmental, Social and Governance (ESG) performance and sovereign bond spreads: an empirical analysis of OECD countries. (pp. 1-56). (Working Paper; Vol. 2017, No. 07). Nanterre: Université de Paris Ouest Nanterre La Défense. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2874262; Devalle, Fiandrino & Cantino. 'The Linkage between ESG Performance and Credit Ratings: A Firm-Level Perspective Analysis'. International Journal of Business and Management; Vol. 12, No. 9; 2017 http://ccsenet.org/journal/index.php/ijbm/article/view/69319

^{8 &}quot;Shifting perceptions: ESG, Credit risk and ratings. State of play" PRI. 2017 https://www.unpri. org/fixed-income/shifting-perceptions-esg-credit-risk-and-ratings-part-1-the-state-of-play/78.article

Another limitation of today's regulation is that there is no requirement for CRAs to state explicitly how they take into account sustainability risks and opportunities. For instance, while CRAs are required by EU law to review their methodologies on an ongoing basis, "in particular where material changes occur that could have an impact on a credit rating", they are only required to "take into account financial risks deriving from environmental hazards" where appropriate.

This lack of explicit consideration of ESG criteria and long term sustainability risks and opportunities should be addressed, and is one of the reasons behind the HLEG expressed "concerns that the current legal regime for credit ratings in the EU does not include an explicit mandate that relevant long term risks including ESG risks must be fully integrated."





Recommendations

For Credit Rating Agencies:

- Disclose whether and how ESG issues are being considered in existing credit rating methodologies, governance and disclosure.
- Disclose whether and how new disclosure data (for example TCFD) are considered in credit ratings.
- Extend the time horizon of the credit risk analysis to reflect better the investment time horizon of the underlying assets and the time horizon of investors, until governance/internal controls to look at shifts in sector risk framework beyond traditional analysis period.
- Consider adding a tag on the credit rating so that the long term alignment is always shown with the credit rating, even if the time horizon of the latter is shorter than the former.
- Systematically demand increased and better ESG risk disclosure from issuers.

For ESG rating providers:

Work with users of ESG ratings and assessments to define fair commercial offerings so that the
integration of ESG considerations does not negatively impact performance and promotes greater
integration of ESG factors into investment decision making.

For regulators:

- Provide regulation and guidance for CRAs to integrate material sustainability risks and opportunities within ratings, including updating and enforcing regulations that already exist, for example EU regulations and guidelines already exist that could be used ensure that ESG factors were more consistently covered in CRAs' analysis, governance and disclosure.*
- Promote competition in the credit rating industry by supporting the growth of sustainability rating agencies.
- Stimulate and enhance the provision of independent ESG ratings as a stand alone assessments, or as a separate information tools, to complement other information tools, including for example traditional credit ratings.

*Summary from HLEG final report: In the EU CRAs are currently required to review their methodologies continuously, "in particular where material changes occur that could have an impact on a credit rating" (Article 8.5 of CRA1 2009). EU/1060/2009 requires that CRAs should "use rating methodologies that are rigorous, systematic, continuous and subject to validation based on historical experience, including back-testing". Annex 1 (Part III, Section E) of CRA1 outlines that the transparency report is currently required to disclose information about the legal structure of the CRA, the internal control mechanisms that ensure the quality of its ratings, record-keeping, allocation of staff, management, a review of independent compliance, financial information and governance accounts.



7. STOCK EXCHANGES AND SECURITIES REGULATORS

"Securities regulators have a responsibility to ensure that risks are appropriately evaluated, which includes climate... A framework needs to be adopted, disclosure needs to be made, and we don't have forever for this to happen."*

Mary Schapiro, 29th Chair of the U.S. Securities and Exchange Commissions (SEC)

*Taken from the IOSCO Growth and Emerging Markets Committee Dialogues on Sustainable Finance in Capital Markets, 9 July 2018, London



Stock exchanges and their regulators play a unique role in delivering the standardized sustainability data investors require. Their listing requirements and guidance ensure companies file data that is material, meaningful and comparable with their peers. As market facilitators of nearly US\$100 trillion of market capitalization globally at the end of 2017¹, stock

exchanges also send powerful signals to the markets they operate in, including by disseminating ESG information and providing market infrastructure for sustainable asset classes and products.

1 https://www.bloomberg.com/gadfly/articles/2017-12-04/98-750-067-000-000-reasons-to-be-scared-about-2018

CURRENT ACTIONS

The United Nations Sustainable Stock Exchange (SSE) initiative is a market led approach trying to promote disclosure across markets, with a core aim to improve sustainability disclosure among listed companies.

The SSE identifies a number of ways stock exchanges can promote sustainability¹:

Developing and promoting green products and services

Many stock exchanges develop, co-develop and promote various green products, from debt instruments like green bonds, to green equities. For example:

- There are now over a dozen climate aligned indices developed for different markets.
- Nasdaq and the New York Stock Exchange have each worked with partners to develop environmentally focused Exchange Traded Funds (ETFs).
- Stock exchanges and securities regulators have played a key role in the development of the green bonds market. Currently ten of 84 stock exchanges tracked by SSE offer separate listings or search options for green bonds (for example Nasdaq Stockholm's sustainable bond listings), or offer any other type of ESG categorization.
- Some stock exchanges are also working with partners to improve investor and issuer knowledge about new green products available, for example Green Infrastructure Funds and Green

Real Estate Investment Trusts (REITs). Exchanges as diverse as London, Mexico, Chile and Thailand have also started awareness raising or educational activities for green product promotion.

2. Encouraging better quality disclosure

Stock exchanges and securities regulators have a strong role to play in supporting listed companies and other issuers to disclose high quality ESG information, in accordance with local regulations. 38 of 71 SSE members have issued guidance to listed companies on how to engage in ESG reporting.

Some stock exchanges have already integrated environmental factors into their listing rules, for example: the Brazilian exchange B3, Bombay Stock Exchange, National Stock Exchange of India, Bursa Malaysia, Singapore Exchange, Johannesburg Stock Exchange, Stock Exchange of Thailand and Ho Chi Minh Stock Exchange. B3, for example, launched an initiative asking listed companies to disclose annually whether they publish sustainability or integrated reports that consider SDGs on a comply or explain basis.²

Some stock exchanges such as Oslo Børs and Nasdaq Stockholm require that green bond issuers must provide a public, independent second opinion certifying the environmental dimension. For admission into the Luxembourg Green Exchange, issuers are also required to declare the use of proceeds and commit to post issuance reporting and an external review.³



¹ http://www.sseinitiative.org/esg-guidance/

² http://www.sseinitiative.org/wp-content/uploads/2017/11/SSE-Green-Finance-Guidance-.pdf

Individual member states have taken steps as well. The 2013 update of the UK Companies Act 2006 requires companies to disclose greenhouse gas emissions. France's Energy Transition Law (Article 173), released in 2015, also requires listed companies to disclose their exposure to climate related financial risks as well as measures to address those risks. China has announced that by 2020 all listed companies and bond issuers will be required to disclose the ESG risks associated with their operations.4 Furthermore, since 2018, the EU's Nonfinancial Reporting Directive (NFRD) requires large public companies with more than 500 employees to disclose relevant and material environmental and social information in their annual reports. Affected companies will also be required to provide information on their diversity policy, as well as on gender, geographical diversity, education and professional backgrounds of their employees.

3. Offering sustainable finance products and platforms

Many financial centres have started offering sustainable finance products and platforms. In April 2018, the first meeting of the International Network of Financial Centres for Sustainability (FC4S) was held in Milan, Italy, following a decision of the G7 Environment

4 https://www.lexology.com/library/detail.aspx?g=61af067d-4fd6-4ad9-91d6-bb01037fb166

Ministers' Meeting in 2017. Convened by UNEP, the FC4S aims to "mobilize the resources and expertise of financial centers around the world to implement the Paris Agreement on climate change and the Sustainable Development Goals (SDGs)".5

There remain, however, a number of barriers preventing stock exchanges and financial centres to deliver their full contribution to a sustainable financial system.



5 https://www.responsible-investor.com/home/article/un_fin_centres/

BARRIERS

Many ESG disclosure requirements remain voluntary

Evidence shows that all of the top 10 exchanges with the highest disclosure rates globally have mandatory disclosure requirements in place. That is not to say that mandatory requirements are sufficient (specificity and enforcement are also needed), but rather that they are necessary for achieving good disclosure performance.

Despite the above efforts, corporate sustainability disclosure rates remain low globally. As of 2017, for

6 http://www.corporateknights.com/reports/2017-world-stock-exchanges/

instance, less than half (43%) of the world's largest listed companies disclosed their greenhouse gas emissions, while employee injury rates were disclosed by just 24%, depending on the sector.⁷

Part of the problem stems from a lack of globally accepted corporate reporting standards in relation to ESG issues, but the main reason is lack of mandatory disclosure requirements and enforcement of these requirements.

7 ibid



2. Sustainability disclosure often comes with a lag, hampering investment decisions

Recent studies have also shown that, compared to financial filings, sustainability information often gets disclosed with a lag (only half of companies provide it within seven months of the fiscal year whereas, by that time, 98% of them have already provided their financial information). This lag prevents investors from considering the financial information in context. More importantly, it hampers the integration of sustainability into a company's strategic thinking: if the priority is solely focused on providing financial information, sustainability is put as a secondary priority, thus going against the very concept of corporate alignment with sustainability objectives.

Challenges to establish global regulatory requirements

As the body that brings together the world's securities regulators, IOSCO – the International Organization of Securities Commissions – is particularly well placed to help improve the quality and timeliness of sustainability disclosures. Indeed, incorporating sustainability factors into its principles would help it deliver the core objectives of regulation set out in its mandate: protecting investors; ensuring that markets are fair, efficient and transparent; and reducing systemic risk.⁸

IOSCO is beginning to engage positively with the issue; in September 2017 the IOSCO Growth and Emerging Markets (GEM) Committee set out a commitment to strengthen the growth of sustainable finance. Achieving global consensus, however, remains challenging.

4. The quality and impact of sustainable finance product offerings vary

As noted above, an increasing number of financial centres have now started listing sustainable finance offerings and dedicated trading platforms, both on the equity side (for example ESG ETFs) and the fixed income side (SDG bonds, green bonds, social impact bonds).

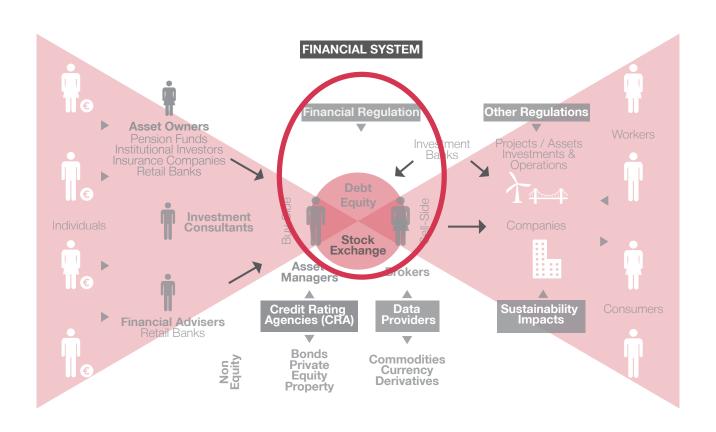
Without clear standards or labels on sustainable finance products, however, it can be hard, or at least more time consuming and therefore costly, for investors to differentiate between products. If we are to increase the percentage of sustainable investments as a share of total investments on an exchange, these standards will be urgently needed.







⁸ https://www.iosco.org/library/pubdocs/pdf/IOSCOPD561.pdf









Recommendations

For stock exchanges:

- Develop segments to promote sustainable finance investment and ensure that sustainable products listed are promoted and easily found.
- Engage with companies on sustainable finance and provide guidance to listed companies on how to engage in sustainability disclosure, starting with the TCFD recommendations.
- Where there is stock exchange control over listing requirements, use this to ensure that sustainability disclosure is mandatory, explicit, regularly updated and regularly enforced. Where regulators set requirements, engage with them to promote integration of sustainability, and adopt international standards as the default approach.

For securities regulators:

- Develop a sustainable finance strategy, building on the work being done in IOSCO's Growth and Emerging Markets (GEM) Committee.
- Endorse the TCFD, proposing that implementation of the TCFD recommendations be rolled out among members in a proportionate way.
- Building on the work of IOSCO's GEM Committee, consider the formation of a grouping of those securities regulators who either have or are planning to mandate improved disclosures to work together to improve comparability and consistency of information on a global basis, for example, acting in concert to facilitate adoption of a single global reporting standard.
- Consider the formation of a sustainable finance committee, charged with informing IOSCO on how it can: 1) embed sustainability considerations throughout its work; 2) support IOSCO in its efforts to provide the necessary guidance and standards to its members when it comes to sustainability disclosure; and 3)support work to update IOSCO's Strategic Framework for Investor Education and Financial Literacy to take account of sustainable finance issues.

For financial regulators:

- Ensure that sustainability disclosure is mandatory, explicit, regularly updated and regularly enforced
- Develop a taxonomy of the different types of sustainable finance assets, so as to help define the standards and labels that will help direct capital towards sustainable investment.
- Create a coalition of IOSCO member organizations that will work together to address sustainable finance within and outside IOSCO.



8. COMPANIES

"Your company's strategy must articulate a path to achieve financial performance. To sustain that performance, however, you must also understand the societal impact of your business as well as the ways that broad, structural trends – from slow wage growth to rising automation to climate change – affect your potential for growth."*

Laurence D. Fink, Founder, Chairman and Chief Executive Officer of BlackRock

* Quote taken from Laurence D. Fink's annual letter to CEOs 2018



Companies, with their ability to transform capital from the financial markets into real economy projects, are an essential part of the solution to deliver a sustainable economy. With more than 43,000 companies¹ listed and a global market cap of nearly US\$100 trillion as of end of 2017², there is a strong potential for action. There is also concentration in the sector – a 2017 PwC report found that globally the top 100 listed companies represent about US\$17.4 trillion of assets³, although the majority of many economies is made up of the SME sector.

3 https://www.pwc.com/ax/en/audit-services/assets/pdf/global-top-100-companies-2017-final.pdf

CURRENT ACTIONS

There has been significant action by companies to promote a sustainable financial system. This includes:

Linking borrowing to climate and broader sustainability outcomes

An increasing number of companies are using green bonds to fund projects that have positive environmental and/or climate benefits. The market grew tenfold between 2013 and 2017, although it remains a fraction of the overall global bonds market.¹

Most green bonds issued are green "use of proceeds" bonds, where proceeds are earmarked for green projects, but are backed by the issuer's entire balance sheet. There have also been green "use of proceeds" revenue bonds, green project bonds and green securitized bonds. Large corporate issuers include SNCF, Berlin Hyp, Apple, Engie, ICBC, and Crédit Agricole.²

Although smaller, there is also a growing market in social and sustainable bonds. Examples include: Starbucks which has issued two sustainability bonds (a ¥85 billion seven year bond in March 2017 and a US\$500 million bond in May 2016 both targeting sustainable coffee supply chain programmes); Grupo Rotoplas, the Mexican water storage company; Swedish property company Hemsö; and Air Liquide.³ Others include NAB and QBE, both of whom have issued gender equality bonds. More recently, interest is emerging in the issuance of SDG bonds, with the

first US\$1 billion corporate SDG bond raised by HSBC in November 2017.

Other types of debt are now also being tied to sustainability outcomes, for example, Sainsbury's recently agreed a £200 million corporate 'green' loan to invest in ongoing carbon reduction and sustainability projects⁴, and the use of sustainability linked credit facilities as referenced in the earlier chapter on banks.

2. Disclosure and reporting

All actors in the investment chain need better quality information to understand and influence sustainability impacts, much of which derives from corporate disclosures. The quality of information flowing through the investment chain is therefore to a large extent dependent on the quality of information disclosed by companies. Companies have been active contributors to the development of the main reporting frameworks including the TCFD (climate change), GRI and SASB (sustainability information), and the IIRC (integrated reporting). Companies also provide information to a wide range of sustainability research, ratings and index providers, for example, CDP, Sustainalytics, ISS-oekom and DJSI. Others, such as FTSE and MSCI, use publicly disclosed corporate data as the input to their analysis. Reporting among the largest companies is now the norm, however, this rapidly tails off outside the largest 100 companies in most jurisdictions. A number of leading financial and non-financial companies are beginning to disclose against the TCFD recommendations, including Solvay, Aviva and HSBC.



¹ https://data.worldbank.org/indicator/CM.MKT.LDOM.NO

² http://uk.businessinsider.com/global-market-cap-is-about-to-hit-100-trillion-2017-12

T UNEP-FI Making Waves: Aligning the Financial System with Sustainable Development, 2018 http://unepinquiry.org/making-waves/

² https://www.climatebonds.net/market/explaining-green-bonds

³ https://www.euromoney.com/article/b14sxhkbb0047d/capital-markets-how-to-build-a-social-bond-market

⁴ https://www.about.sainsburys.co.uk/investors/debt-investors/green-loan

3. Collaborating with others to promote sustainable finance

As with other actors, companies are working together to promote sustainable finance, through groups such as A4S's CFO Leadership Network⁵, the Coalition for Inclusive Capitalism⁶ and the Business and Sustainable Development Commission.⁷

4. Engaging with corporate pension schemes

There is increasing focus among companies on engagement with their own pension schemes, whether defined benefit or defined contribution schemes. A4S's CFO Leadership Network issued guidance in 2015 setting out steps that companies could take to engage with their corporate pension scheme⁸, with a number of the chairs of their pension schemes becoming founding members of the A4S Asset Owners Network. More recently, WBCSD has set an aspirational goal that 1% of its member companies' total retirement assets will be invested in ESG themed funds by 2020.⁹

8 https://www.accountingforsustainability.org/en/knowledge-hub/guides/enhancing-investor-engagement.html

 $9\ https://www.wbcsd.org/Programs/Redefining-Value/Investor-decision-making/Aligning-Retirement-Assets$









⁵ https://www.accountingforsustainability.org/en/about-us/our-networks/cfo-leadership-network.

⁶ https://www.inc-cap.com/

⁷ http://businesscommission.org/about

BARRIERS

Mixed demand signals from lenders and investors

Despite signs of growing action, many companies remain unconvinced that the mainstream investment community places much weight on sustainability issues or performance, whether in the debt or equity markets. A recent A4S study found the general perception among the corporate community continues to be that there is a lack of interest in ESG matters among the capital markets, whether at the point of issuance or as part of ongoing engagement with banks or fixed income investors, even where these present risks which the company sees as financially material.

2. Challenges to engage with index providers and passive funds

There are divergent views about the quality of sustainability ratings and the extent to which the underlying methodology captures sustainability impacts. For those companies seeking to engage actively with their investors on these issues, this sense of a 'black box' methodology, with no ability to discuss or understand the results, presents a significant cause of concern and frustration.

3. Lack of widespread adoption of global reporting standards

Despite the effort noted above, corporate sustainability disclosure rates remain low globally. As of 2015, for instance, less than half of the world's largest listed companies disclosed their greenhouse gas emissions, energy or water usage. ¹⁰

Companies currently face multiple different information requests from investors, third party data providers and other stakeholders. Without convergence around reporting standards, adoption of those standards globally, and use of the information contained in disclosures made by indices, ratings agencies, investors and other users, the reporting picture will remain fragmented, patchy and inconsistent.

10 http://www.corporateknights.com/reports/2017-world-stock-exchanges/

Voluntary initiatives are important to improve the quality and quantity of disclosures, but they cannot on their own guarantee an uptake at the speed and scale necessary to deliver the SDGs or tackle climate change; for this, regulation is required. Looking at publicly listed companies, for instance, evidence suggests that the stock exchanges for which sustainability disclosure is mandatory tend to have higher disclosure rates than those where they are only suggested – even when guidance is provided.¹¹ Making sustainability disclosure mandatory is thus essential.

4. Developing understanding of impacts and dependencies

In the context of imperfect markets, the notion of corporate performance on the SDGs must go beyond material issues. Similarly, much of the focus has been on listed companies. While this is understandable given that this is where most of the information is available, ensuring that SDG alignment of state owned enterprises and private companies is also critical.

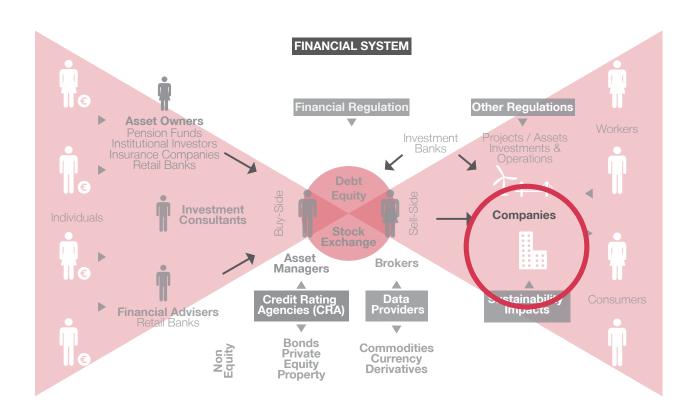
5. Companies struggle to integrate the SDGs into their corporate agenda

Today, less than one in three companies (30%) uses the SDGs as input for setting corporate objectives¹², making it difficult to turn these goals into operational strategies. This is in part a result of the fact that the SDGs were initially designed for governments, not business. But it is also because the scope of the SDGs, as a set, often go beyond any single company's activities and influence. This can make it hard for companies to identify where they can have the strongest impact. In fact, just 30% of companies think they have the tools they need to assess their impact on the SDGs.



¹¹ For example see Corporate Knights study above

¹² https://www.worldbenchmarkingalliance.org/wp-content/uploads/2017/12/WBA-Londen-Consult.pdf









The reporting landscape

Reporting on corporate impact on society and the environment

In most cases, reporting is focused on the company's impact on society and the environment, with the most common reporting standard used being the GRI's G4 based on analysis undertaken by KPMG. Work is underway to explore how these frameworks align with the SDGs. It found that the SDGs have resonated strongly with businesses worldwide in the two years since their launch. Many already connect their activities within the SDGs, with 43% of the largest 250 reporters and 39% of the N100 reporters (the largest companies in each of the countries covered by the research) linking corporate responsibility activity to the SDGs. This is a clear trend that has emerged in a short space of time and strongly suggests that the SDGs will have a growing profile in reporting over the next two to three years.

Financially relevant sustainability disclosures

For the financial community, alongside work to understand corporate impact, better quality information to understand the financial implications of sustainability trends on the business is also essential. The three major global initiatives which have developed guidance in this area are: the International Integrated Reporting Council, which has set out an overarching reporting framework bringing together information covering areas such as business model, governance, risk and performance; CDP, which is the main framework used to report detailed information on climate change and other environmental risks; and the Sustainability Accounting Standards Board, a US based initiative which has developed a set of sector specific standards focused on financially material sustainability KPIs.

Climate change

A March 2018 report found that nine in ten companies (of 1,600 surveyed) reporting to CDP now disclose their Scope 1 and/or 2 carbon emissions and eight out of ten disclose at least one Scope 3 category. Few of the largest companies in the world, however, acknowledge climate change as a financial risk in their annual reports (72% of the N100 do not, and 52% of the G250 do not). Of the minority that do acknowledge climate risk, very few attempt to quantify or model the business value at stake. The statistics support the need for initiatives such as the Financial Stability Board's Task Force on Climate related Financial Disclosures (TCFD).

Through contributing to and adopting recommendations such as the TCFD, companies have been working with investors and other actors in the investment chain to develop consistent, detailed analyses of current sustainability impacts, as well as better scenario planning to stress test different future outcomes. More than 250 companies with a market cap of over US\$6.6 trillion (including more than 160 financial firms responsible for assets of over US\$86.2 trillion) have publicly expressed support for the TCFD recommendations with some companies starting to adopt them in its first year.



Recommendations

For companies:

- Adopt best practice sustainability disclosure guidelines, using the TCFD recommendations.
- Ensure debt providers have sufficient and appropriate access to material sustainability information to facilitate their assessment of future cash flows, long term resilience and sustainability.
- Examine how to encourage integration of sustainability within corporate pension scheme arrangements.
- Incorporate an analysis of ESG risk in debt issuance documents and investor presentations.
- Consider in house training for investor relations and treasury teams to meet changing skills requirements, and work with key industry providers to integrate within core modules of professional qualifications.
- Include ESG criteria as part of the selection process for banking and other financing relationships.
- Participate in benchmarking efforts that will help them put their performance in perspective and understand better where improvements can be made.
- Consider how to contribute to achievement of the SDGs and extend reporting to cover impacts and dependencies.

For regulators:

- Work together to increase the consistency, timeliness and adoption rates of sustainability disclosures, starting with climate and the TCFD recommendations.
- Support public good efforts aiming at increasing transparency on and improving the status of corporate alignment with the SDGs, including the World Benchmarking Alliance (see box on page 25)
- Play an active role in promoting SDG alignment of state owned enterprises.

For others:

- **Lenders, loan facilitators and investors** to request higher quality ESG information and project standards, as per other sections of this report.
- **Governments** to promote improved corporate sustainability performance by making alignment to the SDGs a precondition to accessing public procurement tenders.
- **All** to work with companies to track the contribution of the private sector to national sustainable development strategies.



9. REGULATORS

"The good news is that governments are now establishing the policy frameworks, and the private sector is beginning to allocate capital accordingly. Our efforts [as central banks and supervisors] will help smooth the transition prompted by these actions."*

Mark Carney, Governor, Bank of England

*Quote taken from speech 'A Transition in Thinking and Action' 6th April 2018



Financial regulators should have both the motivation and the ability to make a positive impact on sustainability issues.

With regard to motivation, many regulators have themselves been making a strong case that environmental issues, in particular climate change, pose grave threats to long term financial stability and are therefore within most regulators' mandates. Once the connection between sustainability and financial stability has been established, the reach and influence of regulators over regulated financial institutions give them significant ability to influence behaviour of those institutions and the broader set of companies they invest in or lend to (though as we shall note, few regulators currently utilize this ability to any large extent).

CURRENT ACTIONS

1. Thought leadership

The Governor of the Bank of England, Mark Carney, has focused attention on the connection between sustainability and financial stability, setting out the case in his 2015 speech 'Breaking the Tragedy of the Horizon' that climate change would impact stability in terms of the physical (direct costs of increasing extreme weather events), transition (sudden, sharp losses in value in the fossil fuel sector as the energy transition takes place) and liability (costs due to legal action by those suffering the effects of climate change). (See box on page 85 for more detail)

Other regulators have followed the Bank of England's lead, interpreting their mandates to include the examination of climate risk. The Dutch Central Bank, for example, has recently published a detailed examination of the potential effects of climate change on the financial sector in the Netherlands.²

2. Promoting disclosure of sustainability risks by companies

The Financial Stability Board (FSB), formed of national Finance Ministries and Regulators, representatives from G20 countries, established the market led TCFD to develop a framework for climate related financial disclosures.³ National and regional regulators are now

looking at whether to integrate these recommendations into their regulatory frameworks.

3. International collaboration

Outside the FSB's work, other regulators are acting together on sustainability. Regulators from 14 countries have now formed the Network of Central Banks and Supervisors for Greening the Financial System aiming to "strengthen the global response required to meet the goals of the Paris Agreement and enhance the role of the financial system to manage risks and to mobilize capital for green and low carbon investments."

4. Use of regulatory tools

So far, most regulators' actions have largely been restricted to establishing the link between sustainability and financial stability and then suggesting ways for individual firms to address these risks in their practices, notably through disclosure aligned to the TCFD recommendations. They have not used many of the regulatory tools outlined to address the risks to financial stability that their research is increasingly highlighting.

However, some leading governments and regulators are beginning to explore the feasibility of the inclusion of risks associated with climate and other environmental factors in institutions' risk management policies and the potential calibration of capital requirements of banks (sometimes called a 'green supporting factor' or 'brown penalizing factor'). The European Insurance



¹ https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability

² https://www.dnb.nl/en/binaries/Waterproof_tcm47-363851.pdf?2017110615

³ The Task Force on Climate-related Financial Disclosures https://www.fsb-tcfd.org/

and Occupational Pensions Authority (EIOPA) has been asked to provide an opinion on the impact of prudential rules for insurance companies on sustainable investments. The European Commission has also proposed that the European Supervisory Authorities' mandate is updated to include responsibilities on Environmental, Social and Governance issues.

Meanwhile in April 2018 the Governor of the French Central Bank called for supervisors to develop and implement "forward looking carbon stress tests for both insurance companies and banks", including "assessing the impact of shocks on the probability of default over a much longer horizon than the usual one of one year". In the UK, the government commissioned a Green Finance Taskforce which has recommended that "relevant financial regulators should integrate the TCFD recommendations throughout the existing UK corporate governance and reporting frameworks".

There remains a huge amount to be done if the consequences of sustainability risks for financial stability are going to be managed effectively.

BARRIERS

There are a number of barriers to financial regulators doing more to address sustainability issues directly in their work. These include:

1. Regulators' mandates

In most cases, financial regulators receive their mandates from government. These mandates set out what the regulator is tasked with achieving: usually some combination of financial stability, customer protection and promoting market confidence. For most regulators, these mandates do not currently explicitly incorporate sustainability objectives. While the logical case can now be made that financial stability implicitly includes sustainability, leaving this implicit in the mandate always leaves sustainability concerns subject to the whims of individual leadership in any given regulator at any given time, and to being deprioritized when management changes or funding is limited.

2. Funding and expertise

Even if it is accepted that regulatory mandates do include sustainability, this is a new and complex responsibility to address, and one around which most regulators do not currently have expertise. If regulators were to attempt to use their full range of tools (such as capital recalibration, stress tests, enforcing mandatary disclosure of environmental risk), additional funding

and expertise would be needed in most, if not all, regulators. This reinforces the previous point on the explicit mandate – as long as the sustainability work is seen as discretionary, it will not get the resources needed.

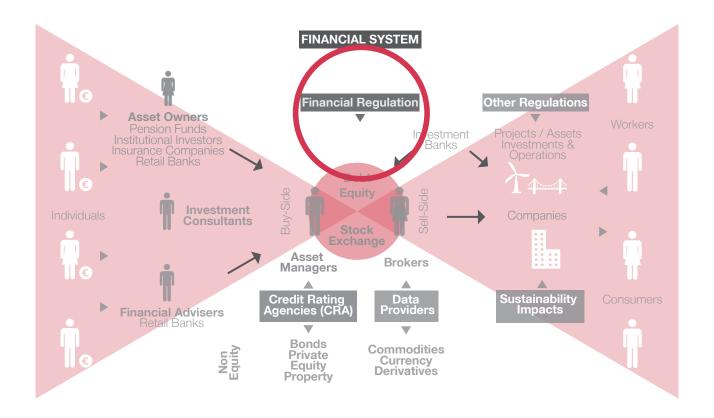
Perception that using regulatory tools to manage sustainability risks could distort financial markets

Recent reports have started to suggest that financial regulators should go further in using their tools to address sustainability risks and opportunities. There has been a mixed response among policymakers, regulators and media commentators to these suggestions. Informally, regulators have indicated they are wary of being perceived as using their regulatory tools to address 'political' issues. On the suggestion of recalibrating capital charges to take account of climate change, for example, some regulators may fear that if they imposed lighter charges on green investments, or heavier charges on brown, they could be accused of distorting market competition by favouring one set of companies over another.



⁴ For example see http://neweconomics.org/wp-content/uploads/2017/09/NEF_BRIEFING_ CENTRAL-BANKS-CLIMATE_E.pdf; https://ec.europa.eu/info/publications/180131-sustainable-finance-report_en; https://perspectives.eiu.com/sites/default/files/The%20road%20to%20 action%20-%20WEB.pdf

⁵ For example see https://www.bloomberg.com/view/articles/2018-04-13/global-warming-is-a-central-bank-issue



Managing sustainability as a financial stability risk

Current prudential frameworks for financial institutions only indirectly address climate risk and do little to encourage financial institutions to decide whether to include climate risk in their risk frameworks, or to disclose climate relevant information.

For example, the capital treatment of infrastructure investment under Solvency II (the EU prudential regime for insurance companies), could, perversely, mean that insurers are incentivized against making sustainable investments which could reduce future liabilities and risk for policy holders.

Regulators and supervisors could explore:

- Recalibrating capital requirements to take account of climate risk and better incentivize sustainable investment for jobs and growth, and explore the use of limits/targets to incentivize sustainable investments a 'Prudent Person Principle' for the 21st century.
- Encouraging the proportionate incorporation of climate risk in assessments conducted by financial sector companies, through revising current relevant legislation and guidelines.
- Requiring financial services companies to disclose climate risk proportionately, by integrating the TCFD recommendations into the financial reporting regimes.





Recommendations

For policy makers:

• Give regulators in their jurisdictions a clear and explicit mandate to incorporate relevant sustainability issues into their preservation of financial stability, and provide them with adequate funding and expertise to do this effectively.

For financial regulators:

- Explore evidence for capital charge recalibration to incorporate long term sustainability risks, notably on climate change.
- Issue guidelines for banks, insurers and other regulated financial institutions on how they are expected to incorporate sustainability issues into their risk management processes, considering potential ways to incentivize a focus on longer term performance.
- Work with the regulated firms to develop consistent, comparable climate and other sustainability stress test scenarios and begin to implement these regularly.
- Explore the use of limits and targets on investments with a significant effect on long term stability, for example high and low carbon assets.
- Move towards mandating disclosure of climate and sustainability risk data, if regulated firms do
 not disclose adequately or comparably on a voluntary basis use best practice recommendations,
 such as from the TCFD, to inform this.
- Work together in standard setting forums to create ambitious global supervisory standards on sustainability issues on these previous points, and to incorporate sustainability into the mandates of key standard setting organizations.







ANNEX: FINANCE LEADERS' SUMMIT SUMMARY

In July 2018, finance leaders from around the world gathered at St. James's Palace, London to reflect on how they could play an integral role in delivering a sustainable financial system capable of supporting the achievement of the UN Sustainable Development Goals and of the Paris Agreement.

The meeting, held under Chatham House rule, brought together senior representatives from some of the world's largest financial institutions.

Following a series of opening statements, participants gathered in smaller groups to identify the main barriers to sustainable finance and explore ways in which they could collectively support solutions that could address these barriers, notably in the areas of:

- Building and disseminating a compelling evidence base, and motivating people to act
- Developing a consistent terminology, definitions and clear product labelling backed by standards and verification
- Allocating funds to deliver sustainable outcomes
- Agreeing and adopting common reporting standards covering asset owners, asset managers and companies to close data gaps and enable comparison
- Pricing externalities such as carbon to accelerate the ability of the market to price risk properly and thereby integrate into decision making

To promote the cross fertilization of ideas and insights, the working group sessions were complemented by plenary report sessions, culminating in the presentation of the day's key findings to HRH The Prince of Wales. Below is a summary of the main themes that emerged from the discussion.

The need for greater, more accessible and more intelligible information

The critical role of quality ESG data and the importance of making it accessible to and understandable by all was highlighted in many of the group discussions. As many participants argued, easy access to clear and reliable data would help companies improve

their sustainability performance and help investors take better decisions and make more informed analysis.

Among the barriers identified were an overall lack of disclosure, inconsistency in the data disclosed and lack of comparability between the data. Many participants were also of the view that user friendliness of the data was limited. These barriers, they argued, limited the ability of the average investors to use the data for decision making and, in turn, made it less clear for issuers what additional value the disclosure effort would provide. The absence of benchmarks also made it difficult to mainstream the use of ESG information.

While all participants agreed that disclosure was necessary and would ultimately become mandatory, views diverged as to when ESG disclosure should be mandated. Some argued that requiring it too soon (e.g. before having a clear sense of best practices) might limit the impact and change the mindset from one of innovation to one of 'box ticking', while others argued that the urgency of sustainability required rapid adoption, and that keeping the voluntary phase too long would create the risk of ending up with fragmented approaches – in other words, the longer the voluntary phase, the higher the cost of standardization. There was consensus that the adoption of the recommendations of FSB's Task force on Climate-Related Financial Disclosures was an urgent priority.

Participants also agreed on the importance of making the information accessible and intelligible to the average investor (whether institutional or individual) and to other stakeholders. The creation of benchmarks ranking performance of fund and companies against the SDGs was seen as a useful development and participants welcomed the creation of the World Benchmarking Alliance.

The need for standards, labels and products

If data is necessary, it is not sufficient. With this in mind, many participants noted the importance of creating indices and benchmarks able to assess both

the exposure to sustainability risks and the ability to capture sustainability opportunities. Forward looking information would be critical in that regard, they argued, as would building the capacity to create clear and reliable sustainability scenarios. Many pointed to the catalytic role the insurance sector could have, as insurers have a strong experience in, and data on, the evaluation of exposure to physical risk. Other participants noted that disclosure was a prerequisite to proper scenario analysis.

The creation of labels that would assess a financial product's impact would also be helpful. While green bonds and social bonds were seen as early examples of this potential, most participants were of the view that these were not sufficient on their own to realign capital with sustainability, although all agreed they were a step in the right direction. More generally, many participants were of the view that what constitutes 'good' is still unclear at the moment. The need for a clear taxonomy was thus critical, with many participants agreeing that this should be done in a bottom up fashion, with information cascading from assets to issuer to asset manager to asset owner. With this in mind, some members of the group suggested the creation of a research body, funded by financial institutions, that would help define a common taxonomy for sustainable investments and products. To be effective and legitimate, this body would require the support of a critical mass of financial institutions.

Fiduciary duty and the critical role of asset owners in aligning finance with sustainability

Most participants were of the view that it is still difficult for the average individual to invest in line with their own values. One barrier identified was the misconception around fiduciary duties in relation sustainability issues. While some asset owners and asset managers have overcome this misconception, participants agreed that achieving scale required an effort at the international level to make explicit the fact that sustainability considerations are an integral part of fiduciary duty. The United Nations, the OECD and the G20 were seen as important international arenas where this clarification could be established.

Given the long term nature of their liabilities and their ultimate beneficiaries, asset owners – notably pension funds and sovereign wealth funds – were seen as having a particularly critical role to play in promoting long term investments. Many participants were also of the view that asset owners should demand more from their asset managers and empower them to have a more sustainable approach and longer time horizons in their investment decisions.

Many participants noted that it would be very useful to have a platform that would enable asset owners to frame and phrase those demands as one voice. Such a group or platform, they argued, could be supported by academic research to articulate success measures (and work backwards to determine actions) and help with goal settings and recommendations. The use of longer term contracts and clear investment mandates were also seen as a way to promote a longer term approach by asset managers. More generally, all participants agreed that any actor acting as a steward of another actors' money should always ask the latter what their sustainability preferences are, and invest according to those preferences, as well as actively share insights and evidence around potential materiality of ESG risk and opportunity.

The role of culture and practice in aligning finance with sustainability

Participants identified culture and practice as important areas where change was needed. On the culture side, many agreed it was urgent to create a culture where impact investing was a natural part of any investor conversation. This, they argued, is less of a transformation than one might think. Many participants, for instance, noted that there was a time when boards were indifferent to health and safety and that this is now part of normal business culture. We just need to reach the same level for all externalities, they argued. As one participant put it, the goal should be to move from the current situation of the ESG team giving guidance to the fund managers to one where the fund managers are doing ESG research themselves. This would help turn ESG integration from a top down strategy to a bottom up one.

On the practice side, engagement was seen as important element of that transformation, with some participants suggesting it might be good practice to have additional insight into discussions at board meetings to see if ESG issues were discussed regularly and in depth. Evaluating and remunerating staff on ESG integration can also help create the right incentives. Capturing the full benefits of an ESG approach takes time. Although ESG integration and improved financial performance frequently go hand in hand, it may sometimes be necessary to incur a short term cost in order to collect long term benefits. Many participants however observed that, in the current environment, such a long term approach would be questioned and does not allow the benefits of applying ESG to prevail. Many participants agreed that tying remuneration and rewards to long term results (as opposed to short term ones) would help in that regard. Other participants noted that longer term contracts and mandates were needed for such a reward structure to be put in place.

If top level leadership is needed, the message also needs to get to the front line. For instance, as many participants argued, relationship managers need to understand ESG issues and have the confidence to discuss them with companies. ESG training should thus be core to financial services training and not just a niche specialty. This, in fact, would be critical to ensure that sustainability discussions become part of the new business normal.

The need for sustainability mainstreaming also applied to other sectors, including the media, where many participants saw a need for a better ESG knowledge among financial editors. Some participants shared anecdotes of reaching out to senior financial editors about a sustainable finance story, with the latter declining and redirecting them to a sustainability specialist journalist with limited financial knowledge. Participants also agreed more needed to be done to share stories (urgency, evidence, good practice, etc.) with journalists. One solution identified by participants to address these barriers was to organize a campaign led by high profile representatives/executives and focused on engaging senior financial editors on ESG issues.

Dealing with externalities

Many participants were of the view that the key to internalizing externalities was to adjust anticipated cashflow. This, they argued, could be achieved by adjusting future revenue streams (e.g. pricing of externalities) and/or the cost of capital (e.g. via capital charges or reflecting sustainability risk in credit rating). With respect to the modification of capital charges, some participants were of the view that this should be pursued using a risk oriented framework, and that sustainable projects should only see their capital charges reduced if they indeed reduced risks. This, in turn, requires clear and reliable links between financial and ESG data, they argued.

Many participants also discussed carbon pricing, noting that urgent public policy action was required for this tool to deliver its full potential. Shadow prices might work at firm level, but scale can only be achieved through explicit pricing of externalities for all.

The role of policy

The large majority of participants saw a clear demand for regulation from private actors, notably on disclosure and fiduciary duty. However, they did see governments as lagging behind in their responses to this demand. This was particularly the case at the international level when it came to climate related financial disclosure, and where divergent views between governments held back international regulatory efforts despite a clear demand from industry players in particular in the relation to the TCFD. Many participants also saw the focus of most central banks as being too short term and micro (as opposed to long term and macro).

Participants agreed that the creation of a 'coalition of the committed' at the government level – with the EU and China as driving forces – would be key to driving change at the policy level. Creating space for that coalition to act would also require all stakeholders jointly to demand action from their governments. Noting the difference between governments and regulators, one participant argued that change should come from governments first before regulators could

step in at scale. Some participants also argued that exposure to sustainability risks (notably physical risks) should be viewed as an issue of corporate governance, and that the SDGs should be incorporated into corporate governance codes.

Climate change as the litmus test

While all participants agreed integrating ESG disclosure was essential, a few participants remarked that ESG as whole might be too broad and that some issues might be more difficult to integrate or quantify than others (e.g. social issues vs. climate change issues).

Given the advances on, and momentum around, the climate change issue (e.g. TCFD), many viewed the efforts in this space as key to informing progress in other ESG matters. Some participants argued that the principles of the TCFD could be easily mapped onto a social investment focus, for instance. Most participants agreed that the focus should thus be on the TCFD first, so that success can be secured and momentum then expanded to other areas, notably the SDGs.

According to many of the participants, a major barrier for the TCFD implementation will be how to undertake scenarios exercises and report on them. Many saw capacity building as critical to success in that regard. Another challenge identified was how to evaluate the quality of the reporting, given that the scenarios will likely be sector specific and that there will be many scenarios to choose from. A couple of participants also questioned whether making the results of scenario public might constitute a liability risk for the company.

One solution proposed by participants to address the above challenges would be to create a third party verification processes for TCFD related scenario processes and disclosure. Applying the TCFD to both listed and non listed companies would be particularly important, given that the number of publicly listed companies in the US – the world's second largest carbon emitter – has been going down over the past decades (it has halved in the last 20 years).1

1 https://www.bloomberg.com/view/articles/2018-04-09/where-have-all-the-u-s-public-companies-gone

Investing for our future: A system wide intergenerational challenge

All participants agreed that the sustainability imperative required a system wide transformation, and that the risks and costs of disorderly transition far exceeded those of a planned one. Most investors and business are used to cyclical fluctuations where downsides are temporary (boom-bust-boom) but now there is the risk of entering a "bust-bust-bust" cycle where the downside is prolonged if action is not taken. A planned transition also requires instruments that can help ensure that stranded assets do not lead to stranded jobs.

All participants agreed that demand for action is bound to increase. Many participants noted that the younger part of their workforce were both more aware and more demanding of action on sustainability. Some participants also believed that increased physical impacts of climate change would lead to investors and credit analysts paying greater scrutiny to high sustainability risks and demanding more information about companies' exposure to them, thus leading to a demand pull on ESG disclosure.

Answering this demand for change, some participants argued, could very well be the redemption that the financial sector has been looking for following the onset of the financial crisis. But it is also a matter of an intergenerational responsibility, and of meeting the needs of the present without compromising the ability of future generations to meet their own. One participant encouraged the group to envision what historians will say about the actions taken today and to create a sense of excitement about the outcomes that could be achieved if the financial sector succeeded in its transformation.

Overall, most participants agreed that sustainable finance is both a unique opportunity to reconnect the financial system with its original purpose of serving society and the solution to avoid the catastrophic consequences of an unsustainable development path or an abrupt transition. As one participant put it: "If not us, then who? If not now, then when? And if not this, then what?"

ANNEX: FINANCE LEADERS' SUMMIT ATTENDEES

First Name	Last Name	Title	Organization
Ashley lan	Alder	Chairman (Chief Executive Officer, Securities and Futures Commission, Hong Kong)	International Organization of Securities Commissions (IOSCO)
Patrick	Arber	Senior Analyst, Global Public Policy	Aviva
Samir	Assaf	Chief Executive of Global Banking and Markets	HSBC
Gord	Beal	Chapter Director	Canadian Chapter of the A4S CFO Leadership Network
John	Belgrove	EMEA Head of Investments and Senior Partner	Aon
Magnus	Billing	Chief Executive Officer	Alecta
Ambassador Marc-André	Blanchard	Canadian Ambassador	United Nations
Kate	Bowyer	Chief Financial Officer	The Crown Estate
Sarah	Breeden	Executive Director, International Banks Directorate	Bank of England
Tony	Broccardo	Chief Investment Officer	Barclays Pension Fund
Christine	Brogan	Director and Chief of Staff - Clients and Markets Executive	PwC UK (EP)
Julie	Brown	Chief Financial Officer	Burberry
Andrew	Chisolm	Board Member	Royal Bank of Canada
Elizabeth	Corley	Vice-Chair	Allianz Global Investors
Olivia	Dickson	Non Executive Director, Chair Actuarial Council	Financial Reporting Council
Paul	Druckman	Non Executive Director	Financial Reporting Council
Javier	Echave	Chief Financial Officer	Heathrow Airport
Jessica	Fries	Executive Chairman	The Prince's Accounting for Sustainability Project (A4S)
Roger	Gifford	Chairman, Green Finance Initiative	City of London Corporation
Will	Goodhart	Chief Executive	CFA Institute
John	Haley	Chief Executive	Willis Towers Watson
Mitchell	Harris	Chief Executive Officer, Investment Management	The Bank of New York Mellon Corporation
Antonio	Horta Osorio	Chief Executive Officer	Lloyds Banking Group
Emma	Howard Boyd	Chair	Environment Agency Pension Fund
Frederic	Janbon	Chief Executive Officer	BNP Paribas Asset Management
Daniel	Klier	Group General Manager, Group Head of Strategy and Global Head of Sustainable Finance	HSBC
Brian	Lawson	Senior Managing Partner and Chief Financial Officer	Brookfield Asset Management
Joaquim	Levy	Managing Director and Chief Financial Officer	World Bank Group
Rachel	Lord	Senior Managing Director	BlackRock
Louise	Macaulay	Senior Executive Leader	Australian Securities and Investments Commission
Tiff	Macklem	Dean	Rotman School of Management

Michel	Madelain	Vice-Chair	Moody's Investors Service
Vim	Maru	Group Director, Retail	Lloyds Banking Group
Geraldine	Matchett	Chief Financial Officer	Royal DSM
Ann	Mather	Board of Directors	Alphabet
Hiromichi	Mizuno	Chief Investment Officer	Government Pension Investment Fund (Japan)
Brian	Moynihan	Chief Executive Officer	Bank of America Merrill Lynch
Justin	Mundy LVO	Advisor to HRH The Prince of Wales	
Pauliina	Murphy	Head of International Government Engagement	Aviva
Didem	Nisanci	Managing Director	Promontory Financial
Philip	Paddack	UK Country Manager	BBVA Group
Teresa	Parker	President, EMEA	Northern Trust Asset Management
Seppo	Parvi	Chief Financial Officer	Stora Enso
Douglas	Peterson	Chief Executive Officer	S&P Global
Russell	Picot	Chair	HSBC Bank Pension Trust (UK)
Raimund	Röseler	Chief Executive Director	Federal Financial Supervisory Authority (BaFin)
The Hon. Mary	Schapiro	Advisory Board Vice Chair	Promontory Financial
Johan	Sidenmark	Chief Executive Officer	AMF Pension
Olaf	Sleijpen	Director, Supervisory Policy Division	Dutch Central Bank
Helen	Slinger	CFO Leadership Network Director	The Prince's Accounting for Sustainability Project (A4S)
Paul	Smith	Chief Executive Officer	CFA Institute
Alan	Stewart	Chief Financial Officer	Tesco
Nandini	Sukumar	Chief Executive Officer	World Federation of Exchanges
Paul	Taylor	President and Chief Executive Officer	Fitch Ratings
Dave	Thomas	CEO, Europe	RBC Capital Markets
Mark	Thompson	Chief Investment Officer	HSBC Bank Pension Trust (UK)
Dawn	Turner	Chief Executive Officer	Brunel Pension Partnership
Kees	van Dijkhuizen	Chairman & Chief Executive Officer	ABN AMRO
Anne-Marie	Verstraeten	CEO of United Kingdom	BNP Paribas
Casper	von Koskull	President and Chief Executive Officer	Nordea
David	Warren	Interim Chief Executive Officer and Group Chief Financial Officer	London Stock Exchange Group
Steve	Waygood	Chief Responsibility Investment Officer	Aviva Investors
Andrew	Wilson	Chief Executive Officer	Goldman Sachs Asset Management
Mark	Wilson	Group Chief Executive Officer	Aviva
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ABOUT A4S

The Prince's Accounting for Sustainability Project (A4S) was established by HRH The Prince of Wales in 2004. Our aim is to make sustainable decision making business as usual.

We work with the finance and accounting community to:

- Inspire finance leaders to adopt sustainable and resilient business models
- Transform financial decision making to enable an integrated approach, reflective of the opportunities and risks posed by environmental and social issues
- Scale up action across the global finance and accounting community

A4S has three global networks: the **Chief Financial Officers Leadership Network**, a group of CFOs from leading organizations seeking to transform finance and accounting; the **Accounting Bodies Network** whose members comprise approximately two thirds of the world's accountants; and, the **Asset Owners Network** which brings together Pension Fund Chairs to integrate sustainability into investment.

www.accountingforsustainability.org





