Pathway to COP26

The role of green finance

Essays collected in partnership with the Chartered Banker Institute

Foreword
James Kirkup

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SMF Social Market Foundation

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THE SOCIAL MARKET FOUNDATION

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Kate Forbes MSP is from Dingwall, although she spent part of her upbringing in Glasgow and India. Until she was elected as MSP for Skye, Lochaber and Badenoch, Kate was employed as an accountant in the banking industry. Prior to that she studied History at the Universities of Cambridge and Edinburgh with a focus on human migration.

As a backbencher, she has served on the Scottish Parliament's Environment, Climate Change and Land Reform Committee, the Standards, Procedures and Public Appointments Committee, the Health and Sport Committee and the Rural Economy and Connectivity Committee. She also served as Parliamentary Liaison Officer for Finance and the Constitution.

As well as leading a campaign to ban plastic straws, Kate has participated in several cross party groups at Holyrood including Crofting, Gaelic, Human Trafficking, Palliative Care and Rural Policy. A fluent Gaelic speaker, Kate made history earlier this year by becoming the first female MSP to give a plenary speech entirely in Gaelic in the current Scottish Parliament chamber.

On 17 February 2020 she was appointed as Cabinet Secretary for Finance.

Simon Thompson

Simon Thompson was appointed as the Chief Executive of the Chartered Banker Institute, the world's oldest institute of bankers with more than 30,000 members in 108 countries, in 2007. He is the editor and co-author of Principles and Practice of Green and Sustainable Finance and chairs the Global Banking Education Standards Board's Education Committee.

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Tim Edwards won the inaugural Chartered Banker Institute Green Finance Essay Competition and is featured in this collection as the Competition's winner. He is an Economics student at the University of Bristol who is passionate about green issues and practical ways to address them. He is President of Bristol Economics, Finance and Management Society representing over 2200 students across the university. In 2020 he founded his own business, Intern Media Group over lockdown to provide students high-quality analysis on business, finance and current affairs. Tim aims to develop his awareness of green finance throughout his studies and aspires to apply its principles to investment banking, consulting or law, to provide meaningful benefit to society and the environment.

Guy Opperman MP

Guy Opperman was elected the Member of Parliament for Hexham in 2010. Guy was called to the Bar in 1989 and spent 20 years as a Barrister – he prosecuted and defended in several murder and rape trials, as well as in numerous Crown Court trials. In 2015, Guy was appointed a Government Whip, and later became Minister for Pensions and Financial Inclusion in June 2017. In October 2019, he introduced Environmental, Social and Governance regulations to ensure pension funds take due account of climate change in their investment practices. This Autumn, Guy is taking the important Pensions Schemes Bill through Parliament, aiming to make pensions safer, better and greener.

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FOREWORD

James Kirkup
Director, Social Market Foundation

The coronavirus pandemic has changed many things, including perhaps our ideas of what the State can do. Faced with a mass casualty public health emergency, it is natural for the State to play a central role in the immediate health-policy response, and in offering support and stimulus to economies depressed by the pandemic and the measures put in place to mitigate it.

If direct State action is at the forefront of dealing with large-scale challenges around the pandemic, does it follow that similar action should be the centrepiece of our collective response to another challenge on a grand scale, the challenge of our changing climate? I am not convinced that we can or should attempt to read across from the current crisis to the next one. I also suspect that the State-first analysis of the COVID-19 response is a little simplistic; after all, the vaccines that will, we hope, eventually make the virus manageable are being developed by commercial businesses using capital allocated to that purpose by private owners. The State is the essential coordinator and enabler of the pandemic response, but markets are playing a vital role too.

That, I think, is the way to analyse and plan policies to manage and mitigate climate change. And that is why the Social Market Foundation is proud to be working, once again, with the Chartered Banker Institute, to publish more contributions to our collective knowledge and understanding of the role that financial markets and the policies that support them can play here. Since climate change is arguably the biggest public policy challenge of the century, our response must be on the same scale, and that can only mean that private capital is deployed as part of the effort.

So the role that markets – and market participants – can and should play here should be central to policymaking today. Just as our ability to get through the pandemic and the downturn depends on sensible partnerships between the public and private sectors, so our prospects of coping with the changing climate will rely on both the State and the market. I hope these contributions help all the participants in this grand challenge to rise to the occasion.

CHAPTER 1 - THE IMPORTANCE OF SHIFTING NORMS IN SUPPORTING CLIMATE ACTION

Professor Linda Yueh
Fellow in Economics, St Edmund Hall, University of Oxford; Adjunct Professor of Economics, London Business School; Visiting Professor, LSE Ideas.

Introduction

The climate emergency will need to be addressed through a wide range of means and by a diverse set of stakeholders. In addition to legal and regulatory measures, it will require shifting norms. That's one of the lessons from history. When there's been a paradigm shift in history, it has been driven by broad societal shift in norms. In other words, simply changing laws or imposing taxes are not enough. Change requires social acceptance and a change in behaviour which only comes about when people are persuaded of the cause.

When there's broad acceptance of the need for change, then that is when formal measures are accepted and adopted. These tend to be facilitated by stakeholders who advocate for shifting the paradigm. Sometimes a regulation or tax will be ahead of public opinion. It means that for a *de jure* measure to be effective, there has to be de facto acceptance and compliance. The importance of formal and informal institutions in setting the "rules of the game" has been well-known since the great economist Douglass North established New Institutional Economics.

Therefore, any climate measure will require the support and buy-in of stakeholders, not just in the public sphere but also the private sector. The trend towards ESG, which covers environmental, social and governance standards, among companies and investors is a good example of how norms are shifting towards accepting there's an urgent need to address the climate crisis. Such acceptance and related actions would complement formal measures, such as a carbon tax, regulations to achieve net zero, etc., and enhance their effectiveness.

Lessons from history

The importance of shifting norms to precipitate or accompany change is evident throughout history. The late Victorian period was characterised by a focus on poverty and helping the deserving poor. The period of the late 19th Century was also known as the Gilded Age and the Belle Epoque; both names captured the wealth and inequality of the time. The stark contrast with the growing number of people in poverty poor after the Long Depression or Great Depression of the 19th Century began to change social norms.

Unemployment appeared in the dictionary for the first time, which changed the way that people viewed the capitalist economic system. The system seemed to benefit some while leaving others behind. Some in society rejected capitalism altogether and opted for socialism or communism. Others advocated for changes within the capitalist economic system.

Those changes led to the introduction of a progressive tax system. It meant that the rich paid a greater percentage of their income in tax which could then be redistributed as funds to the poor. It was also during the late 19th and the early 20th Century that social welfare programmes were introduced, e.g., the National Health Service (NHS), social security systems.

We take these redistributive and social safety net policies for granted as part of welfare state capitalism. But their introduction, which changed the existing capitalist paradigm, was not without challenge even in the face of huge inequality, poverty and unemployment.

For instance, the great economist Alfred Marshall, the father of neoclassical economics, was initially opposed to redistribution. He feared that it would weaken the incentive to work. But when he examined the evidence that showed a lack of disincentivising effects, his views changed. It wasn't just economists who were engaged. Social activists created programmes to support the poor, such as Baroness Angela Burdett-Coutts who became the first female peer on account of her charitable work with Coutts clients, notably Charles Dickens.

The late Victorian attitude towards helping the poor were formed in such ways. This shift in social norms shored up support for welfare state capitalism and holds lessons for how to address the climate emergency.

Applying those lessons to the climate crisis

The focus on ESG is one of the ways in which norms are changing. The increase in interest in how companies' activities impact the environment is a reflection of the shifting norms around what is acceptable. In a mutually reinforcing process, investors and businesses have also increasingly stressed the importance of protecting the environment. For instance, there are now ESG ratings of companies by specialist and financial firms. This analysis helps investors select well-rated companies and screen out those which do not abide by environmental as well as social and governance standards.

Companies are also incorporating ESG and particularly environmental goals into their own strategies. Firms are signing up to support the 2030 Sustainable Development Goals through the UN Global Compact and setting their own net zero targets which might even be more ambitious than their governments.

This reflects a social shift in preferences for environmentally-friendly businesses. Some may view these efforts as just a new version of CSR which has been criticised for paying lip service on corporate social responsibility. But, the change in social norms around the climate crisis is noteworthy. These initiatives are not forced by regulations. They reflect what customers and clients increasingly demand. But many of those who are running or investing in companies are themselves people who want to address the environmental crisis.

This is the crux of how a paradigm shift occurs: the consensus as to what is acceptable changes. A century ago, it was the unacceptable levels of poverty and inequality. Today, it is the destruction of our planet.

A change in norms will enable ambitious legislation to be effective. ESG reflects the private, voluntary action that has the potential to help support a new holistic approach to address the climate crisis.

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CHAPTER 2 - BUILDING A NET ZERO ECONOMY THAT IS FAIR FOR ALL

Kate Forbes MSP
MSP for Skye, Lochaber and Badenoch, and Cabinet Secretary for Finance

The COVID-19 crisis will continue to define public policy making around the world for the foreseeable future. Globally, governments of all types are contending with the challenges of safeguarding public health while rebuilding our economies and way of life. The depth of this crisis has clarified that for a resilient and sustainable recovery for our health, our people, our economy and our climate, reverting to business as usual is not an option. That is why we will use our recovery from this crisis to build a greener, fairer, and more equal society and economy, with a laser focus on creating new, high-quality, green jobs. Sustainable finance is a critical tool for the public and private sector in this vital rebuilding work.

Scotland as a world leader

In Scotland, our landmark Climate Change Act has put us at the forefront of the global fight against climate change, setting a world-leading target of reaching net zero carbon emissions by 2045 and achieving a 75% reduction from 1990 levels by the end of this decade. These targets are incredibly ambitious – ending Scotland's contribution to climate change within what, for some industries, is just a single investment cycle – but achievable.

The reason for setting this level of ambition is twofold. We want to demonstrate the viability of an ambitious decarbonisation plan to our global partners, encouraging them that the goals set under the Paris agreement are achievable. But we also want to lead because we believe it is the best way to maximise the economic benefits for Scotland of the global transition to net zero. We recognise that decarbonising Scotland is both a moral obligation and a significant economic and social opportunity.

By delivering the solutions to the climate crisis here in Scotland, we are developing expertise, products and solutions that can be exported around the world. Our renewables expertise is already being used in 72 countries, with Scottish businesses employing staff in 22 of those,[1] while setting us on the path to abundant, low-cost and carbon-free electricity at home.

Our priorities for public finance are aligned with our climate ambitions, focused on securing the economic benefits of the green transition, and sharing them across Scotland. Our investment in liveable, digitally connected, low-carbon cities will continue to attract high-skill jobs. Maintaining and restoring Scotland's stunning natural heritage has the potential to sequester large quantities of carbon in peatlands and forests, while also supporting our rural economies.

Our support to the industrial and manufacturing sectors' transition to net zero will create new, high-quality jobs and new opportunities for investment. Decarbonisation and wellbeing are inextricably linked and these investments will help produce an environment and a nation that people want to live in, work in and conserve.

A just transition

The net zero transition will undoubtedly bring huge benefits and opportunities. But we must also face up to the challenges. Reducing emissions at the scale and pace required by our targets implies far-reaching structural change across many sections of our society. Our transition to net zero simply must be handled differently to the unmanaged deindustrialisation many of our communities suffered in the 1970s and 80s.

That means we must use the financial tools and policy levers at our disposal to ensure the benefits of climate action are shared widely, while the costs do not unfairly burden those whose livelihoods are at risk as the economy shifts and changes. Ultimately, the transition needs to not only leave nobody behind, but also take everyone together towards a fairer, greener society.

In Scotland our approach on just transition has been developing for some time. Our climate change legislation embeds just transition principles and our independent Just Transition Commission is advising us on how we transition to net zero in a way which is socially inclusive.

The Commission's interim report earlier this year strongly highlighted the need to build social consensus with all those affected by the net zero transition, including business, trade unions, consumers and communities.[2] It also highlighted the need to develop a planned approach to reach net zero in a way that fully anticipates and manages the inevitable socio-economic impacts.

We will be continuing to reflect on these important messages as we update our Climate Change Plan later in the year, and look forward to the Commission's final report in early 2021, and will continue to place a just transition at the heart of our approach to ending Scotland's contribution to climate change.

Financing the net zero transition

Transforming our economy and society to net zero by 2045 will require a truly national endeavour, with the public, private, and third sectors all being prepared to do their part, including mobilising the substantial levels of investment across every part of our economy that will be needed. The Committee on Climate Change estimates an additional 1-2% of GDP per year will be need to be invested by the public- and private-sectors across the whole of the UK economy to reach net zero, with a disproportional amount of that required in Scotland.[3]

Public financing and investment, clearly has a significant role to play in supporting the transition.

The Scottish Government's annual Programme for Government, announced in September, included significant low-carbon infrastructure investment over the next five years, including an additional £1.6 billion in decarbonising our homes and buildings, £500 million for large scale transformational active travel infrastructure projects, £60 million of decarbonisation support to the industrial and manufacturing sectors, and an additional £150 million to meet our ambitious woodland creation targets. We are also committed to supporting our cities and regions to invest in their own net zero transitions, and are in the process of developing innovative mechanisms such as the Green Growth Accelerator model to unlock additional investment by local authorities.

Our Infrastructure Investment Plan, published in draft last month,[4] invites views on the strategic priorities for the next 5 years, including the importance of infrastructure enabling our net zero emissions economy and environmental sustainability. We will introduce a sustainable investment hierarchy that enhances and maintains our existing assets ahead of building new, and encourage digital innovation, nature based solutions and circular economy practices where possible.

Under our Investment Plan, we will fund a number of initiatives, addressing both emissions reduction and climate resilience, including greening public sector fleet, active travel, net zero emissions homes, flood risk management, woodland creation and peatland restoration.

While these represent a significant contribution towards the required public spending to get us to net zero, the Scottish Government does not have access to the full range of fiscal powers required to reach the scale required, and so in June we set out our proposal[5] for a new approach to the UK Government's fiscal path, including for an £80bn fiscal stimulus that should rapidly shift focus to delivering the transition to net zero while reducing inequality and improving wellbeing.

However, it will be from the private sector that much of the investment will need to come. We want to work with businesses and the financial sector to develop effective transition plan frameworks, mobilise investment and showcase investment opportunities in Scotland. In September we launched the first phase of our Green Investment Portfolio[6] which brings together a suite of investment ready propositions from the public and private sector that are seeking private investment. These projects will help us to decarbonise, whilst also bringing in private capital investment and jobs to Scotland.

Most ambitiously of all, later this year we are launching the Scottish National Investment Bank,[7] and have committed to providing £2bn of public capital over the next decade. The Bank will give commercial funding to activities with the purpose of promoting or sustaining economic development in Scotland, and with the just transition to net zero as its primary mission. The Bank will support the new technologies, projects and infrastructure that will put Scotland at the very forefront of the transition to net zero. I would encourage investors looking to combine awareness of climate risk with social impact to engage with the Bank as it begins its work later this year.

The road to COP26

Scotland is already a global leader in tackling climate change and we are excited to share our experience and opportunities for a just transition to net zero economy with the world. We look forward to welcoming you at the end of 2021 for COP26, to plan a green recovery for the global economy and drive global ambition to address the Climate Emergency together.

We hope that you will leave COP26 in Glasgow that having seen first-hand what our climate ambitions are doing for the low-carbon economy, and that many of you will join us in investing in the thriving, net zero future that Scotland is creating.

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CHAPTER 3 - GREEN SKILLS FOR GREENER FINANCE

Simon Thompson
Chief Executive, Chartered Banker Institute

As contributors elsewhere to these essays rightly argue, mainstreaming green and sustainable finance requires a raft of substantial and significant changes right across our financial system, and indeed in business and society more broadly. Both "greening finance", and "financing green" necessitate a whole series of continued policy, regulatory, fiscal, market, consumer and social changes at global, regional, national and local levels. System change, in short.

Our finance sector is expected to play a leading role in the systemic transition to a sustainable, low-carbon world. This is set out explicitly in the Paris Agreement, where Article 2.1 (c) requires signatories to make flows of finance consistent with low greenhouse gas emissions and climate-resilient development. Whilst global, regional and national financial institutions and regulators – and financial firms large and small - have key roles to play, so too do individuals. In fact, as individuals, we hold the key.

Finance is built on pillars of financial and human capital, although too often we emphasize the former at the expense of the latter. Financial institutions are led, managed, operated and overseen by individuals, however. And they can – and do – change through individual leadership and action. The change we seek in mainstreaming sustainable banking and finance needs to be led by increasing numbers of finance sector leaders and professionals with an understanding of the critical role of our sector in supporting the transition, coupled with the knowledge and skills of finance to be able to develop and deploy products, services and tools that can mobilize capital and support clients and customers in their transitions.

We need, therefore, to equip our finance profession – our finance professionals – with the green and sustainable finance expertise (the knowledge, skills, values, attitudes and behaviours) necessary to effect change within their institutions, and across our sector more widely. This requires more than a small number of green and sustainable finance specialists; to mainstream green and sustainable finance, we must also mainstream green and sustainable finance skills. The finance profession, including accountants, actuaries, bankers, financial analysts, insurers, investment managers and risk managers are fundamental to the definition and integration of professional and technical standards within institutions, and across the financial system.

At the Chartered Banker Institute, we've taken the lead with the launch in 2018 of the Certificate in Green and Sustainable Finance, the global benchmark qualification for green and sustainable finance professionals. We've been joined, since then, by 12 UK-based, global professional bodies representing more than one million professionals, the UK Government and the UK's new Green Finance Institute in the Green Finance Education Charter. This is a significant, collective commitment to integrating green finance and sustainability into a wide range of professional qualifications and continuing professional development for accounting, business and finance professionals worldwide. The Charter also forms an important part of the UK Government's "Pathway to COP26", leading up to the global climate summit in Glasgow in November 2021, and we aim to attract many more signatories from the UK and internationally before then. Green and sustainable finance skills will, through the commitment of the Charter's signatories, move to the mainstream of professional education – and equip current and future generations to lead our sustainable finance revolution.

There is a strong moral case for this, of course. But there is an equally strong commercial and strategic case for investing in green and sustainable finance skills, reflected in its emergence as an important topic for discussion amongst HR Directors and in boardrooms more broadly in financial institutions around the world, due to a variety of factors and pressures:

- Regulatory pressure, as climate-related risks become an increasing priority for central banks and regulators;
- An understanding more broadly of the impact of climate risks on business, the economy and society;
- Customer pressure, as consumer demand for more sustainable production, operations and consumption grows; and
- Pressure from colleagues, particularly younger colleagues, who want to work for organizations contributing to the development of a low carbon, not a high carbon world.

At present, green and sustainable finance may still be characterised as something of a niche, albeit a highly dynamic and fast-growing one. I don't believe this will remain the case for much longer, however. It's true that, at present, many institutions have small, specialist climate and/or sustainability teams. But we're already seeing green finance move into the mainstream. In some banks, large teams of commercial relationship managers are advising companies on how to move to more sustainable production and services. Rather than have a small, sustainability team and separate funds, fund managers and other investors now integrate ESG factors into all investment decision-making. COVID-19 has increased demand for knowledge of and ability to apply sustainable finance principles in banking, insurance and investment contexts, and such principles will, indeed are, increasingly become part of the mainstream of finance. It won't be long before all finance professionals are, by virtue of their education and training, sustainable finance professionals, leading the systemic change we need to protect people and planet.

CHAPTER 4 - WHAT COVID-19 MEANS FOR CLIMATE ACTION AND THE FUTURE OF SUSTAINABLE FINANCE

Ray Dhirani
Head of Sustainable Finance, WWF

COVID-19 has disrupted many areas of our social and economic systems. The pandemic has forced countries around the world into lockdowns, which have brought economies to a grinding halt and disrupted health and livelihoods worldwide.

However, the reduced economic activity has also had some unintentional environmental benefits for our natural world. Global carbon dioxide emissions are expected to fall by 8% in 2020[1] - close to the 7.6% decline needed in emissions every year till 2030 to avoid disastrous consequences of climate change.[2] Reduced emissions, bluer skies, cleaner rivers, and the return of wildlife have prompted some to suggest that it is as if nature has got some precious time to heal itself from sustained damage as a result of human induced activity.

As the world eventually emerges out of this pandemic, there is a high likelihood that these environmental gains could be reversed. Clearly, we must find a way to protect, sustain, and even build on these gains to our natural world – and of course avoid the massive health and livelihood implications brought on by COVID-19.

Protecting ourselves and future generations from the risks emanating out of nature's widespread degradation will require radical transformations. We need to prevent a runaway rise in global temperatures by transforming our energy and industrial systems towards newer and cleaner models. We need to shift to production-consumption systems that provide for human needs without destroying natural processes and systems. And most of all, we need to transform our political, economic, financial, and social systems such that the link between economic growth and the widespread degradation of our natural environment is finally severed.

We have a unique opportunity to take such actions today, which can lead to a thriving natural world. If there is one lesson that the current pandemic teaches us, it is that inaction on such 'black swan' type risks- unpredictable, but high impact events - can have devastating consequences.

The twin emergencies of climate change and the loss of nature, if not acted upon now, will inevitably lead us to similar, or even worse, consequences. Unlike COVID-19, we have ample science-based evidence of how current trajectories of climate change and the loss of our biodiversity will continue to expose all life on this planet to progressively more damaging and irreversible effects. For example, failure to cut global emissions of greenhouse gases by half by 2030 will risk crossing tipping points that would cripple the global economy leading to possible economic costs of $600 trillion by the end of the century.[3]

As enormous a health, social, and economic tragedy COVID-19 has been, as we rebuild from it, we have an opportunity to shift from our current trajectory to one which is sustainable and resilient.

As the scale and the potential effects of the pandemic become clear, governments around the world have intervened to provide an immediate boost to health systems while injecting longer-term capital aimed at reviving economic growth. Within the first two months of the crisis, governments worldwide have announced economic recovery packages cumulatively amounting to $ 10 trillion - three times more than the response to the 2008-09 financial crisis.[4]

The immense scale and scope of these recovery programs means that the immediate measures taken to support companies and citizens will shape the global economy for at least the next decade - a critical period for humanity to move decisively towards a sustainable trajectory. These interventions must propel our global economy towards resilient growth, avoiding unintended boosts for high-carbon sectors [as was experienced in the financial crisis recovery phase in 2008-09].[5]

Among all levers available to us, restructuring our financial system will be central to rebuilding a new economy geared towards sustainability. By allocating capital with due considerations to the ecological limits of our planet and stimulating more investment for the transition to a sustainable world, our financial system can help prioritize long-term value that does not undermine the ongoing prosperity and health of our society. It will also make for a more resilient financial system: one that is not guided by very short-term profit and one which is not characterized by frequent and extreme boom-bust cycles.

A starting point for building a sustainable financial system will be to ensure that climate change and loss of nature is taken into account in every financial decision - be it allocation of capital through lending, investment and insurance or financial institutions working with their clients to enable their meaningful transition towards sustainability. This means not only integrating environmental considerations into existing investment processes, but also going beyond, and accounting for and reducing the full impact of financial activities on the natural world. Doing so will not only improve the resilience of our financial system but begin to reverse emission rises and halt nature's degradation.

A truly sustainable and resilient post-pandemic recovery will also require a massive mobilization of new capital and reallocation of existing capital towards businesses, assets, and technologies that not only produce strong labour benefits in the short term to stimulate growth but also lead to positive environmental and social outcomes.

Harnessing the true power of the financial system will require us to remove the barriers which are preventing the transformation of the system at the necessary speed and scale. There is a vital role for governments to go further than they have before in accelerating the market changes needed to meet the urgent timelines outlined by science. This would include creating appropriate policies which expand, standardize, and mandate urgent and meaningful action by corporates on both climate change and factors related to nature and biodiversity.

Stronger signals from governments could also provide the impetus needed for financial institutions to create new or refine existing tools, methodologies, and frameworks which help them to obtain, analyse and integrate the complex realities of our natural world with their strategy and operations. These new capabilities would form an integral component of the Paris Agreement aligned transition plans, which all financial institutions must commit to, in order to safeguard their investments and better prepare for the systemic risks associated with climate change and nature loss.

A sustainable financial system will see a network of stakeholders including private financial institutions, development banks, International Financial Institutions (IFIs), governments and NGOs among others working more closely together to achieve decarbonisation and restoration of our natural systems. COP26 could be the marker that strengthens these networks and coordinates them in such a way to ensure financial markets support rather than undermine global efforts in transitioning to a more sustainable future. In fact, government and the financial sector need to find effective ways of collaborating more closely so that our financial system can start to align itself to the climate science and nature imperative.

Alongside institutional and policy changes, it is essential that wider society is included in this journey towards a sustainable recovery, notably raising awareness of the vital role that financial institutions play in delivering net zero and the Paris Agreement. One of the key drivers for sustainable action by financial institutions to date has been the upswell in interest from underlying clients, particularly from younger generations which are soon to inherit assets in excess of $68 trillion.[6] Engaging wider society on this issue will also provide a much-needed boost to raise ambition, increase agency for policy makers, and enable financial institutions to react to the scale of the changes needed for society within the timescale outlined by science.

Building a post-pandemic sustainable financial system will rely on determined, widespread, and rapid action by financial institutions themselves to recognise, prepare for, and contribute to a shift in the financial system towards sustainability. By fostering long-termism, asset allocation alignment to the science, and through building transparency in financial and economic activity, these institutions have the potential to shape a system which values long-term resilience, alongside sustainable financial return.

These changes by financial institutions will not happen in isolation. They also require decisive and bold action by governments and regulators to accelerate momentum, alongside a broad range of voices across society to ensure an inclusive, prosperous and sustainable recovery for the benefit of our society and our planet.

The pandemic has not stunted the growth in the sustainable finance market, and this is a good sign of both the importance of this trend and, ultimately, to the impact that finance at scale can have on our natural world. There is not a moment to waste to harness this power for good. For our future, and for those who follow us, our financial system needs a positive transformation – and this journey begins today.

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CHAPTER 5 - GREEN GILTS: IT'S EASY BEING GREEN

Gareth Davies MP
The Conservative Party

It was Margaret Thatcher who once helped define the mission on climate change when she said *"global warming is real enough for us to make changes so that we do not live at the expense of future generations".* Whilst debt normally lets us live at the expense of tomorrow, issuing green gilts will allow us to invest in our planet's health – future generations will need it.

The green recovery problem

Last year, in 2019, the average global temperature was 1.1 degrees Celsius higher than the pre-industrial period, a year which concluded a decade of exceptional global heat, melting ice and rising sea levels driven by human activity. [1]

Going forward, unless we meet this challenge, almost all the world's coral reefs will die, millions will be displaced by rising sea levels. The frequency and intensity of droughts, storms and floods will increase significantly.

Our planet is changing in a way that will affect all of humankind. Put simply, this is the challenge of our time.

The UK has been a leader in this struggle for our planet. Last year, Theresa May oversaw the passing of the 2050 Target Amendment, making Britain the first major country in the world to legislate a 2050 target for having net zero emissions.

And in 2016, our country joined nations from around the world in signing what is now known as the Paris Agreement. An agreement, legally binding us to limit global temperature increases to no more than 2 degrees Celsius above pre-industrial levels.

Next year, Britain will host COP26, bringing countries together again. This is the most important international meeting on climate change since Paris. Britain will be on show so let's make sure we have done everything to show off our leadership on climate change policy.

At the same time as our environmental crisis, we have an unprecedented public health crisis placing an almighty toll on the UK economy. Many businesses are suffering despite the extensive Government support offered. Billions in loans, furlough and support have let us survive the crash, but now we need to thrive in the recovery.

The environment is not simply a separate problem to the economy, but an opportunity to invest and level up. It is a chance for the Chancellor to reframe and redirect our economy to meet the long-term needs of our people and the planet.

A renewed focus on capital investment to achieve economic growth and productivity will be critical. The planned "infrastructure revolution" outlined in the 11 March budget must go ahead, as must the "levelling up" agenda. But let's make it a green infrastructure revolution, and level up to create new green jobs.

The green gilt solution

As we come out of this crisis, the UK Government should issue a sovereign green gilt to specifically fund capital investment in infrastructure that will help stimulate the British economy after the coronavirus outbreak, creating new jobs, technology and transport.

A conventional 'gilt' or a 'bond' is simply a loan made to the Government. However, green bonds are different in that they ring-fence funding for green projects. Green bonds could be the tonic for all our ills - it will fight climate change, it will raise capital to invest in infrastructure, jobs and our economy and it might also lower the cost of our debt.

The capital raised from green gilts could help the Government fund our manifesto commitments including £1 billion for electric vehicle charging stations, £800 million for carbon capture, £350 million on cycling infrastructure and the £640 million nature for climate fund that will support us in planting 30 million trees a year.

But it would also allow us to raise funds to go beyond these commitments to invest in nuclear power and low carbon transport. France has recently announced €30 billion of green spending as part of a comprehensive green recovery.[2] This includes €9 billion on the development of the hydrogen industry and new green technology. Much of this funding will come from their green bonds.

Clearly there are plenty of investment opportunities to tackle climate change that could be funded by green gilts. And of course, this spending would stimulate the economy and enable the creation of new jobs. The Government's £40 million Green Recovery Fund is expected to create 3,000 jobs.[3] It requires little imagination to see that green gilts means investment and jobs - green gilts could finance the levelling up we need now.

Britain is the world's leading financial centre, yet we are surprisingly behind the curve when it comes to utilising capital markets to finance green growth. Other countries have already seen the benefits I have laid out.

The Netherlands, France, Poland, Ireland, Sweden, Belgium and Germany have all issued a sovereign green bond. Currently there is $1 trillion of green bonds in circulation.[4] These saw oversubscribed demand, the French have been the most successful to date, raising over £20bn mainly from other countries to fund their green infrastructure. The French bonds were over three times oversubscribed, whilst German bonds were oversubscribed 5 times over, proving there is a wealth of demand.

Despite not having our own green bonds, UK investors are very active in the global green bond market. 28% of money raised by French green bonds came from British investors. Yet, only 2% of the world's outstanding green debt is denominated in pound sterling whilst over 40% are denominated in euros.[5]

So why has the British government so far held back on a green gilt? Well, it is partly down to concerns expressed by the Debt Management Office about whether a green gilt will be more expensive to issue. Their philosophy follows the words of Kermit the Frog "It's not easy being green."

But if we look at the other sovereign green bonds on the market, they either trade flat to, or even slightly tighter than their non-green peers. This means they might even reduce the cost of Government borrowing. Economists' research,[6] Barclays,[7] the Climate Bonds Initiative[8] and traders all agree that green bonds provide a lower rate of interest for the government, if not the same rate as conventional bonds.

In September, we saw Germany make a twin issuance of green and conventional bonds at the same time. No one was surprised to see the green bonds traded with a lower yield.[9] No one, presumably except for the Debt Management Office. Even if investors lost interest in Germany's green bonds, they can swap them for conventional bonds with the central bank - ensuring green bonds could never be priced lower than conventional bonds.

The only real additional cost will be in the reporting on the use of proceeds, but these will be far outweighed by the benefits borne from the investment raised for our country's infrastructure. Regardless, solid reporting on the environmental effects of our green investment should be implemented with or without green gilts - it can hardly be seen as a downside!

Finally, in addition to being a cost effective way of fighting climate change, growing our economy and building jobs, it would also put a marker down for Britain as a future green finance leader. At COP26 it will show that both the Government and the City of London can innovate, adapt and evolve to meet future needs.

Green Gilts are an easy, tried and tested, solution to both levelling up and fighting climate change. Contrary to the opinion of both Kermit the Frog and the Debt Management Office - it is easy being green. With green gilts as a policy, we have no excuse but to honour Margaret Thatcher's words. Let us show the future that this generation did not live at the expense of theirs.

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CHAPTER 6 - HOW CAN FINANCE PROFESSIONALS ACTIVELY ENCOURAGE CHANGES IN CONSUMER BEHAVIOUR TO ACHIEVE SOCIETY'S GOALS ON CLIMATE CHANGE?

Tim Edwards

Featured in this collection as winner of the Chartered Banker Institute Green Finance Essay Competition 2020.

The overwhelming majority of people see climate change as a serious issue that threatens the environment, economies, and life. The primary cause of climate change has been human behaviour, particularly through investment decisions made into fossil fuels and other unsustainable projects. Human behaviour and investment will also prevent climate change from becoming even worse, in line with the UN Sustainable Development Goals and Paris Climate Agreement to keep global warming below 2°C.

Finance professionals need to take the lead to do their part in adjusting consumer behaviour in the fight against climate change. This adjustment must lead to tangible results on climate and investment, whilst still allowing consumers agency to choose and access effective financial services. The approach detailed builds on concepts in behavioural economics to suggest a solution to encourage sustainable investment, whilst preserving the freedom and rights of the individual.

For retail consumers, financial professionals must provide access to sustainable products for consumers to access. These products could be in the form of savings accounts, pension funds or other more exotic investment vehicles.

By investing in 'green finance,' consumers are directly supporting businesses, infrastructure and projects that provide tangible benefits to the climate, in addition to yielding a rate of return which matches their financial needs. In fact, market reports show that green portfolios outperform those who opt for a less sustainable investment strategy. [1] This may be due to changing consumer desires, more growth potential or more beneficial regulation.

I propose that given Green Financial products have similar yields to conventional products, but provide significant environmental impact, green should become the default option provided to future consumers.

Under this system, when a consumer selects a savings account or pension plan, the green option which meets their risk/reward ratio will be the default one selected. This means that by default, consumers choose the option which works towards climate objectives.

This is not to say that consumers are forced to go green; if for whatever reason they decide not to, they are welcome to make the decision to switch to an alternative plan. Yet by opting out, the consumer not only has to exert mental effort in order to make the switch, they actively have to make the choice not to support climate action, with no clear benefit to themselves.

This approach is heavily inspired by Nobel Laureate Richard Thaler and Cass Sunstein, and their concept of Libertarian Paternalism.[2] Under this approach, freedom of choice is preserved, whilst the socially beneficial outcome is still favoured.

The default effect has consistently been seen to increase the socially desired outcome, whether it be in investment, pensions or organ donation, consumers are overwhelmingly more likely to stick to the default than opt out. In the case of organ donation, donations increased two times under a default approach than they were before, saving numerous lives.[3] Likewise, a green finance default may help save our planet.

The effectiveness of this scheme can further be improved through clear communication of climate impact that an investment makes. This metric could be based on CO2 emissions, energy usage or any other “agreed upon” metric. What is important is that the metric is consistent and easily attributable to investment decisions and translates the abstract into something concrete that consumers can factor into financial decisions.

Such a metric could be influenced by the Human Development Index (HDI),[4] which factors in literacy, life expectancy and per capita income to assess the development and quality of life within a country. Despite the difficulties in environmental accounting that surrounds this issue, such a system would provide clear comparables to be used by consumers and investment professionals to be implemented in decisions, such as default choice architecture.

Furthermore, by creating a clear metric, more focused attention can be given towards the issue. Whether causal or a correlation, many of the UN’s Social Development Goals were either inspired or based around the HDI, leading to the view that such a metric could incentivise consumers to act quantitatively in an environmentally conscious way to set further goals on climate change.

An appealing aspect of the green default initiative is how such a seemingly simple change in the way that financial products are promoted can lead to significant structural change within investment, the economy and the environment.

By focusing consumers towards assets with proven green and climate benefits, the total value of green assets under management would be expected to grow. Whilst in the past decade, Environmental, Social and Corporate Governance (ESG) assets have grown dramatically in market share, they still only make up 1.2% of global Assets Under Management (AUM).[5] By implementing the green default, more money will be invested in sustainable projects, helping bring about innovations and technology to reduce global temperature increases.

Moreover, and perhaps more impactful for the long term, a shift to the default investment becoming the sustainable investment may lead to an exponential growth in efforts to combat climate change. The reasons for this are two-fold.

First, as financial institutions realise that sustainable investing is the norm, the transformation may be sector-wide, as opposed to being isolated to a single firm. In a hypothetical case, were all asset managers, banks and pension funds to adopt a green default initiative for all future investment, it would be reasonable to expect the total of green investments to increase by trillions of dollars in the next decade. Additionally, sustainable specialists and knowledge of green finance fundamentals will continue to develop, as firms become more committed to the environment, based on the will of their clients.

Second, as firms realise the paradigm shift occurring within the investor community, ESG and climate focused initiatives will become strategic priorities for firms seeking investment or entering into a complex financial transaction like an Initial public offering (IPO) or share issue. This is because, if firms know that the default response of financial professionals is to create sustainable portfolios, the firm must become sustainable to achieve other objectives, such as expansion or future profitability.

Essentially, what this means is that consumers investing with the purpose of achieving climate objectives alongside achieving a positive return can directly influence societies' progress in the fight against climate change, thanks to the support and "choice architecture" created by financial professionals.

The implementation of the green default strategy is also feasible, with potential competitive advantages geared towards the financial professionals and institutions that implement it first.

It is evident that the younger generations of "millennials" and "gen Z" are even more climate conscious than their parents. We can base this on reports of younger generations suffering greater climate anxiety, and the rise of activists such as Greta Thunberg representing the youth of today.[6]

As a result, these groups are more willing to engage in green finance and may place a premium on ensuring that their investment yields a positive societal or environmental impact. We can infer this from how many brands adapt to fit the millennial view through taking social, environmental or even political stances on current events.

This increase in propensity for sustainability amongst younger consumers means that climate- friendly financial products will be highly attractive to them. For the financial firm that chooses to innovate within this space first, a unique selling point will be established, creating immensely strong marketing and public relations, backed by tangible real-world benefit.

The marketability aspect is especially important here, as consumer grade products like savings accounts and pension funds are far more familiar to consumers than bonds and other instruments. Consequently, public awareness of the firm's green investments towards climate change will grow to an even greater extent than complex instruments, leading to more consumers investing in sustainability and an increase in total AUM for the firm, providing greater revenue for the firm.

Of course, in an efficient market, this advantage will likely be competed away by other financial providers offering climate focused products. However, the total amount of sustainable investment would overall dramatically increase and may even become the norm amongst finance professionals. From this, we would expect to see a similarly dramatic increase in climate related projects receiving funding, - thereby, hopefully mitigating future climate risk.

This would still be an incredible outcome for the climate.

In summary, by changing the default products that we present consumers, we can dramatically influence the behaviour of investment.

We can also provide consumers greater purpose in investment, facilitating future green initiatives. And, together finance professionals and consumers can beat climate change.

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CHAPTER 7 – WE CAN GET TO NET ZERO BY UNLEASHING THE PRODUCTIVE POWER OF OUR PENSIONS

Guy Opperman MP
Minister for Pensions and Financial Inclusion

Britain is leading the way to net zero. I was proud to vote for the Paris Agreement, and we have made great progress in reducing carbon emissions, which have fallen by more than 28% since 2010, by far the best rate of reduction in the G20. [1]

But getting to net zero requires new and innovative ideas. The UK remains the premier destination for sustainable energy investment, and globally, more than 61% of green investors would consider investing in the UK.[2]

We all need to play our part, from the consumer, to big business. The Chancellor's Summer Statement demonstrated the Government's commitment to environmental action through a new Green Homes Grant, with vouchers to pay at least two-thirds of green home improvements for consumers, such as loft, wall, and floor insulations.

But there is something that millions of us have that can play its role in cutting carbon emissions too: a pension.

Saving for retirement is something that we all need to think about. For too long, many of us saw saving for a pension as a problem for the distant future. Auto-enrolment has changed that.

Since its introduction in 2012, more than 10 million employees have been auto-enrolled into a workplace pension, with the biggest increases for young people, women, and the lowest paid. In the five years following its introduction, participation for women jumped from 40% to 84%, for young people from 35% to 79%, and for the lowest-paid from 34% to 76%.[3]

But with trillions in assets under management, our pensions can do so much more than we think. If we can unleash the productive power of our pension funds, they can be at the forefront of seizing sustainable opportunities by financing the green-tech and green-energy revolution we need.

With the UK hosting COP26 in Glasgow next year, it is vital we become a world leader in promoting sustainable and ethical investment, so we can harness the financial muscle of our massive pension portfolios going forward

I want to see our British pension funds investing in new technologies such as wind, solar, and hydrogen. These innovative technologies can turbo charge the way we travel, help us achieve net zero, and provide the long-term return that savers need.

Last year I introduced new Environmental, Social and Governance regulations – ESG for short. When it comes to pensions, the E means sustainable and ethical investment.

These regulations mean that since last October 2019, occupational pension schemes with more than 100 members must take due account of climate risk in their investment practices. And from this autumn, all schemes will be required to report publicly on how they do so, as transparency is key to informed decisions and informed change.

But we need to go further. That is why we are introducing the Pensions Schemes Bill – a new bill that aims to make your pension safer, better and greener. Safer, by cracking down on unscrupulous pension bosses. Better, by making your pension more accessible to you. And Greener, by investing in a more sustainable and ethical way.

I want to talk about the third of these points – greener.

To facilitate the financial world in helping get Britain to net zero, the Task Force on Climate-related Financial Disclosures was set up and supported by many key figures and organisations, including the G20 Financial Stability Board, and the UK Government's Climate Change Advisor, Mark Carney, the former Bank of England Governor.

The Pensions Schemes Bill includes new provisions that will allow the government to mandate schemes to adopt and report against the recommendations of the Task Force. These recommendations ask trustees to consider climate change within their governance as a financially material risk to their members' investments. And they suggest trustees should disclose how they have done so to their members and the public. Again, with this transparency comes accountability, change and empowerment.

The Bill will also give the government the power to require schemes to take account of the Government's net zero targets, as well as the Paris Agreement goals of limiting the rise of average global temperatures.

More people than ever before are thinking about how their pension is invested. Many people are now taking a personal interest in how their own savings can play their part in getting Britain to net zero.

In July this year, Richard Curtis – the brilliant British screenwriter and producer, behind classics like Mr Bean and Love Actually – launched the Make My Money Matter campaign. His new campaign aims to engage savers with their pensions and encourage sustainable investments.

Some people believe that government should simply force pension trustees to divest from high-carbon stocks. I fundamentally disagree. Simply selling these assets to others without the same environmental concerns is counterproductive and will do nothing to get Britain to net zero.

The Make My Money Matter campaign is not calling for divestment. They are encouraging savers to engage with their pensions and encourage sustainable investments. That very much chimes with my priorities, and the priorities of the DWP.

It is a partnership with business that is the way to achieve the innovative change required. By investing in assets, trustees can nudge, cajole, and vote firms towards lower-carbon business practices.

Collaboration is the best approach. The UK can and will lead the way both in terms of achieving net zero, but also in the provision of green tech and the financial know-how to get us there.

Net-zero is a long-term challenge facing our country. By unleashing the productive power of our pensions and engaging with savers, we can get there.

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CHAPTER 8 - FINANCIAL SERVICE ORGANISATIONS ARE VITAL TO UNLOCKING THE GREEN ECONOMY

Nick Hague-Moss
Senior Client Advisor, IPSOS MORI

The public are demanding greater governmental and industry action

As 2020 began it looked as though public opinion globally was moving towards a recognition of the urgency of action on climate change. We had record levels of concern and global agreement on the problem (if not the solution) in our 2020 Ipsos Global Trends Survey.[1] Since then the COVID-19 crisis has seen spontaneous concern about climate drop like a stone, as public attention shifts to immediate problems, but climate change remains a priority for most when people are asked to reflect on the post-pandemic world.

Ipsos research for Earth Day 2020 showed that two-thirds of citizens around the world agree that the climate emergency is as serious a crisis as Coronavirus, and the public agree that if their governments do not act now to combat climate change, they will be failing their citizens: this commitment has not been eroded by the current COVID-19 crisis. If forced to choose between the environment and the economy in a rebuild, the public are split – but 65% support governments prioritising a green rebuild as part of the solution to both the impending recession, but also climate change itself.[2] [3]

While financial providers realise they have agency to encourage sustainable behaviour

In financial services, direct-to-customer organisations and intermediaries are recognising that they need to implement genuine environmental change policies if they are to remain competitive. The Brunel Pension Partnership, which manages many council pensions in the South West as well as the Environment Agency, has been particularly vocal and recently gave notice that it will sack investment managers who do not act on the climate crisis. The pension fund will demand that companies in which it invests take steps to ensure their emissions support achieving the targets agreed at the 2015 Paris climate summit. Companies that don't do enough will see their board appointments challenged and stakes withdrawn.

The prospect of asset owners such as pension funds withdrawing their lucrative business has prompted some big investors to review their climate policies. BlackRock, the world's largest investment manager with £5.3tn in assets under management, earlier this year announced it would divest from companies producing thermal coal and increasingly offer fossil fuel-free products.

Similarly, increased activism from consumer bodies such as Client Earth and NEST, the UK's largest pension fund with 8.5 million members, has called on banks to present a 'clear and robust plan' to phase out financing some fossil fuel companies.[4] This has already had an impact with planned coal-fired power stations' new mines being cancelled.

This focus on sustainability has also led to some new innovative products such as 'positive incentive loans', whereby the margin a company pays on credit goes up or down depending on whether sustainability targets are met. Earlier this year, the carrier Jet Blue signed a $550m sustainability-linked loan with French bank BNP Paribas, giving it a financial incentive to deliver on its public commitment to reduce its carbon footprint.

Positive incentive loans have become very popular with banks, the market grew by 250% in 2019, as it allows them to reduce the amount of climate risk assets on their balance sheet.[5] "We know [carbon-intensive companies] have to change business models over the next 30 years," said Hervé Duteil, Chief Sustainability Officer at BNP Paribas. "But you have to accompany them on their transition [and] not turn off the key."[6]

Going forward we can expect to see investment into sustainable funds to continue to increase, having attracted $20.6bn of new investment in 2019, four times the 2018 figure,[7] and perhaps more importantly we can also assume greater clarity around sustainable behaviour.

Transparency, strategy and action are required to avoid greenwashing associations

After focusing on oil and gas companies for many years, campaigners concerned about global warming are increasingly turning their attention to the world of finance. With the financial services industry being examined more closely, providers have responded with many agreeing to disclose the carbon emissions of their loans and investments, while 1,000 organisations have signed up to the Task Force on Climate-Related Financial Disclosures (TCFD), an initiative led by Mark Carney, UN Special Envoy for Climate Action and Finance.

This TCFD commitment is set to become mandatory for UK asset owners and public interest entities, including private equity firms. Along with greater audit scrutiny of CEOs comments in annual reports, this will be a significant step forward, as it will deliver a transparent and comparable measure of a company's sustainability commitments.

We can expect to see similar steps being taken in other markets outside of the UK, most notably in the European Union, and for sustainability's positioning to move from the periphery to front and centre. Increasingly, businesses are evaluated on (non-financial) Environmental, Social and Governance (ESG) metrics, alongside more traditional financial metrics. BlackRock CEO Larry Fink's recent letter to investors claims that: "Investors are increasingly reckoning with these questions and recognizing that climate risk is investment risk."[8]

In 2019, the US Business Roundtable (BRT) dropped its commitment to *'shareholder primacy'* in favour of *'shared value';* meaning businesses must focus on creating value for all stakeholders, including customers, employees, supply chains, governments, civil society – and the planet – as well as shareholders. Organisations are increasingly aware that consumers expect them to lead on important issues such as climate and that a good reputation has positive financial outcomes. The recent Reputation Council report from Ipsos illustrates this, with more than half of members (57%) saying that business leaders are now overtaking politicians as a force for progressive change in the world.[9] Quite a change from the 'greed is good' mantra that surrounded Wall Street and other financial centres in the 1980s and beyond.

Financial providers can show the public how they can influence sustainable industry action

Engaged retail investors and those working in the financial services industry talk about little else other than environmental, social and governance investing (ESG). But for a majority of the public, ESG remains an unknown acronym and yet another jargon term which deters them from investing.

Make My Money Matter, a new campaign led by Richard Curtis of Comic Relief fame, is trying to change this and demonstrate the merits of ESG investing to a broader audience. Its objective is simple but challenging – to get mainstream savers to question where their money is invested. The Ipsos Financial Research Survey shows that this is no easy task, with just over a third (35.6%) of the population not knowing who their pension provider is, let alone whether it is invested sustainably or not.[10]

Furthermore, ESG funds are becoming a more attractive place in a disrupted world; representing lower levels of risk and often greater returns. According to Morningstar, two-thirds of sustainable funds beat the average performer in their category in 2019. "Last year, sustainable funds performed particularly well on average relative to peers because they tend to invest in companies with a strong ESG focus, which tend to be lower-volatility and higher-quality companies that hold up better during market downturns," said Hortense Bioy, Director of Passive Strategies and Sustainability Research for Europe at Morningstar.[11]

Those who seize the opportunity will be rewarded

With climate concern at the top of both the consumer and political agenda, there appears to be little alternative but for financial services to transition from being a significant contributor to the sustainability problem to part of the solution. Regulatory changes mean that organisations' sustainability policies will very soon be both measurable and visible to all stakeholders. With the public on the cusp of realising they have agency, through their financial holdings, to drive the sustainability changes they would like to see, financial providers must act now to be viewed as authentic in their positioning.

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CHAPTER 9 - WHAT NEXT FOR CENTRAL BANKS AND FINANCIAL SUPERVISORS?

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The threat of climate-related risks stranding assets has spurred work by financial supervisors and central banks, who have announced new supervisory expectations and climate stress tests to help improve the solvency of individual financial institutions, as well as the resilience of the financial system as a whole.[1] The G20 Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) has created a framework to help companies and financial institutions consistently measure, manage, and report their climate-related risk exposures.[2] There have also been a plethora of new initiatives, products, and services intended to help financial institutions measure and manage climate-related risks.

But climate risk management (CRM) is often erroneously conflated with seeking or achieving alignment with climate outcomes (ACO). While there is some overlap between CRM and ACO, they have different objectives and often different results.

CRM can make little or no contribution to ACO. For example, reducing a company's exposure to projected increases in Country A's carbon prices could entail moving emitting production to Country B, which has lower environmental standards, potentially increasing net carbon pollution overall. Or a company could hedge its exposure to projected increases in carbon prices through derivatives contracts such as swaps, which would not alter the underlying economic activities of the firm and thus have little or no impact on emissions.

This is not to say that CRM cannot, intentionally or unintentionally, result in better climate outcomes. A way to reduce Company A's exposure to projected increases in carbon prices could be reducing the company's carbon emissions, thereby helping ACO. A universal owner, such as a large pension or sovereign wealth fund, by advocating for timely and effective climate action by governments could potentially contribute to lower climate-related transition risks across their holdings if governments heed their advice.

CRM and ACO can also work together in specific financial products, for example, a bank providing a sustainability-linked loan. Company A secures a lower cost of capital from the bank if it achieves ambitious, predetermined carbon reduction targets. A lower cost of capital is possible because Company A has calculably lower credit risk due to less energy use, resulting in lower energy bills and lower potential future carbon price liabilities. The lender can share some of that reduction in credit risk with the borrower, creating a win-win where the borrower secures a lower cost of capital and the bank makes more money.

These synergies between ACO and CRM are clearly important and it makes sense to maximise them at every opportunity. But that is different from saying there is always a positive relationship between them both, or that CRM automatically and inevitably leads to ACO. It does not.

Instead of incidentally contributing to ACO through CRM initiatives like the TCFD, we need specific ways of dealing with and contributing to the challenge of alignment. These need to be articulated, developed, and scaled across the financial system rapidly. Without rebalancing the distribution of effort and spending more time explicitly on ACO, we cannot ever hope to align finance and the financial system with climate change objectives.

While central banks and financial supervisors have shown significant and growing interest in CRM, they have generally shown much less interest in ACO.

The focus of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) has primarily been on micro-prudential supervision, and to a lesser extent macro-prudential supervision, followed by monetary policy and financial conduct.

Perhaps the area that has most overlapped with ACO from a NGFS perspective has been growing concern about greenwashing and the mis-selling that could result. The UK FCA has recently warned that, "[greenwashing] could undermine confidence in the green finance sector, leading to unsatisfied demand, reduced participation and competition and insufficient investment in the transition".[3]

If a product is claiming it will make a contribution to ACO, it should be clear how it will do it and there should be an accountable and transparent way of measuring the claimed contribution over time. Financial supervisors should be much stricter at authorising and monitoring such product and fund claims.

While central banks and supervisors have been more interested in CRM than ACO, there are clearly potential levers they could pull to ensure financial institution and financial system ACO. Sidestepping the question of whether this is within their mandates and assuming they would be given proper instructions from politicians held to account by the public, what could these levers be?

Central banks and supervisors, together with policymakers, should work on these and other related ideas to understand their pros, cons, and delivery challenges.

- **Capital charges for ACO** – capital charges for finance provided to Paris Agreement incompatible assets could be introduced. This would go beyond aligning capital charges with climate-related risk and would overlay ACO considerations onto the setting of risk weights.
- **ACO targets for supervised firms** – ACO targets for portfolio and loan books could be introduced. Supervisors could ask firms to disclose voluntary targets or they could set mandatory ones. If targets were introduced, they should set out the ultimate destination in terms of the percentage of assets that will be compatible with Paris aligned global warming thresholds for every 5-year period starting in 2020 up to 2050 for a given confidence level. For voluntary target setting, supervisors could require standardised levels of confidence, as well as common metrics and assumptions, to ensure comparability.
- **Introduce carbon budgets to Asset-Liability Matching (ALM) and Strategic Asset Allocation (SAA)** – risk budgeting is used to guide ALM and SAA. Supervisors could require that carbon budgets be factored into these processes, which would allow institutions to determine the most efficient use of a given carbon budget allocated to their institution. This carbon budget would need to take account of carbon lock-in and could be introduced either voluntarily or compulsorily.
- **Senior Managers Regime ACO** – in a similar way to how the Senior Managers Regime is now used in the UK for climate-related risk management, ACO could be added to this framework.[4] This would create clear supervisory oversight and accountability of senior executive management.

Supervisors clearly have options for accelerating ACO, but these should not be entered into lightly and there are significant and very legitimate questions about the remits of central banks and financial supervisors in society. While these are debated, there is a no-regrets need to explore the options they have together with policymakers, including the pros, cons, and delivery challenges. In many instances the first-, second-, or even third-best options will not be action by central banks and supervisors, but action by policymakers or the private sector.

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CHAPTER 10 - COMBATTING CLIMATE CHANGE POST COVID-19: HOW CAN RESPONSIBLE FINANCE ENSURE WE BUILD BACK BETTER?

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"A recovery from the coronavirus crisis must not take us just back to where we were last summer. It is an opportunity to build more sustainable and inclusive economies and societies," said UN Secretary-General António Guterres as he proposed six climate-positive actions for governments to consider as they build back global economies, societies and communities in the wake of the COVID-19 pandemic.

When 130 banks signed the UN's Principles for Responsible Banking[1] alongside the Secretary-General in September 2019, who could have predicted that six months later our world would change overnight? As countries went into lockdown to protect citizens from a worldwide health emergency, the global economy was plunged into crisis. Now, as parts of the world start to recover from the pandemic, we have an opportunity to rebuild a better, greener and more equitable economy – the finance industry's role will be key to delivering it. With the launch of the sustainable banking framework, developed by a coalition of global banks led by UNEP's Finance Initiative,[2] the UN's largest partnership with the finance sector, all the tools are now in place.

The COVID-19 pandemic has shown us that the health of people and the planet are one and the same. Human activity has altered virtually every corner of the Earth bringing us into contact with new vectors: seventy-five percent of all emerging infectious diseases in humans cross from animals.[3] The long-term threats of climate change and ecosystem and biodiversity loss are also accelerated by our continued destruction of nature.

Yet, as large parts of the world went into lockdown, many of us experienced cleaner air, clearer water and nature began to flourish again. But the climate and natural emergencies have not gone away, and shutting down our economies – jeopardizing the income of millions around the world – is surely not the best way to address environmental degradation. Despite the global industrial and transport slowdown, carbon dioxide levels in the atmosphere have increased this year and governments are failing to deliver on their commitments made under the Paris Climate Agreement.[4] At the same time, one million animal and plant species are threatened with extinction within decades.[5] Social problems are likely to become worse for many people around the world, in particular in the global south, as the world's poor and vulnerable are hardest hit by the environmental decline caused by the pandemic. Meanwhile, financing for the Sustainable Development Goals (SDGs) is falling short: the financing gap to achieve the SDGs in developing countries is estimated to be US$ 2.5 – 3 trillion per year,[6] and private investments in SDG-related infrastructure in developing countries were lower in 2018 than in 2012.[7]

But there is good news. While the Sustainable Development Goals and the Paris Climate Agreement provide the trajectories and targets for governments and the private sector, there are several frameworks specifically designed to guide financiers as they redirect financial flows. The UN-backed Principles for Responsible Investment (PRI),[8] born out of UN Environment Programme's Finance Initiative in 2006, gives the investment industry the guidance to incorporate environmental, social and governance issues into investment practice. Additionally, the UN-convened Net-Zero Asset Owner Alliance is a group of 26 pension funds and insurers representing nearly US$ 5 trillion, brought together by UNEP

Finance Initiative and the PRI. [9] Launched at the Climate Action Summit in September 2019, the asset owners are engaging with the companies that they invest in to ensure that their investment portfolios are net zero carbon by 2050. The Principles for Sustainable Insurance, devised in 2012 by UNEP's Finance Initiative, guide the world's insurers on how to integrate environmental, social and governance considerations into their underwriting business. [10] And with the launch of the UN Principles for Responsible Banking, each sector of the finance industry now has its own sustainability blueprint. [11]

The six Principles for Responsible Banking provide banks around the world, no matter how small or how sophisticated, with the guidance to align their businesses with the Sustainable Development Goals, the Paris Climate Agreement and other relevant national, regional or international frameworks.

Signatories commit to reduce their negative, and increase their positive impacts on people and the environment and are required to achieve that by setting public targets. A group of 37 signatory banks[i] has already pledged to align their business with international climate goals by signing the Collective Commitment to Climate Action, launched in September 2019. [12] They will be expected to take concrete action within a year of joining the collective in order to start aligning their business to reflect and finance the low-carbon, climate-resilient economy required to limit global warming to well below 2 degrees and striving for an increase of only 1.5 degrees Celsius.

Signatories are also working towards setting targets to address their business' impact on the world's biodiversity. UNEP FI is working with them to develop guidance for banks to set targets on biodiversity that are specific, measurable, ambitious, realistic and timebound. Linking science, policy, the economy and finance can help ensure sustainable finance helps address the nature, pollution and climate crises facing society.

The Principles for Responsible Banking framework commits signatories to work responsibly with clients and to encourage sustainable practices that create prosperity for current and future generations. Helping clients shift to sustainable business models and technologies will mean they are better prepared for emerging regulations and consumer preferences, and better positioned to succeed and build resilience to the challenges of climate change.

The scale of transformation needed to meet the objectives of the SDGs, the Paris Climate Agreement and contribute to solving the climate and nature emergency is so great that it requires collective action. Signatories pledge to consult stakeholders such as regulators, investors, governments, suppliers, customers and clients, academia, and civil society institutions to help understand all the impacts of a bank's business, including indirect impacts, such as within communities, or on wildlife.

Implementing the Principles requires banks to take a long hard look at the way they are running their businesses, and affect change from the very top to right across their entire operations. Operationalising the Principles involves ensuring effective governance and a culture of responsible banking so that all employees understand their role in delivering the bank's purpose and integrate sustainability in decision-making.

For banks' implementation of the Principles to be effective and remain credible, they must ensure that their progress and ongoing operations are open to public scrutiny. Signatories will be transparent and accountable for their positive and negative impacts on the environment and on society. They will report on their progress publicly within 18 months

[i] At the time of writing

of signing when they will be expected to demonstrate the steps they are taking towards implementing the Principles.

Due to the COVID-19 crisis, key dates for the international community to accelerate the urgent work required to deal with the climate emergency have been postponed to 2021. But the finance industry is not delaying: now numbering more than 190, and representing US$ 50 trillion, the signatories to the Principles have already begun implementing them and working groups including more than 300 individuals from 150 banks around the world are developing tools and guidance to help banks strategically and practically embed the framework.

Shifting trillions of dollars of private financing and investments to deliver a low-carbon, sustainable economy will require the support of policymakers. At the annual UN climate conference (COP25) in December 2019, progress by governments towards meeting the goals of the Paris Climate Agreement was disappointing.[13] Policymakers now have the chance to ensure they take bold action both in the lead-up to, and at the Climate COP26 and the Biodiversity COP15. We call on governments to respond to the COVID-19 crisis by building back better – linking recovery efforts with the clean energy transition, nature-based solutions and the Paris Climate Agreement. This will require connecting the biodiversity and climate agendas early in planning cycles.

Nature has sent us a message. Signatories to the Principles for Responsible Banking have heard it and are positioning their businesses to heed it. Pension funds and insurers who direct the investment of trillions of dollars have committed publicly to net zero carbon investments by 2050 are signalling to the businesses they invest into to change their practices. By making policy and investment decisions that address the crises in the natural world and the climate emergency, we expect governments to echo that response.

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