

Carta de los editores

Propósito y rentabilidad combinados

En esta edición de *Frontiers in Finance*, nos centramos en un área de creciente importancia para el sector de servicios financieros, como lo es la agenda de ESG (aspectos ambientales, sociales y de gobernanza). Un tema que está ganando relevancia en la forma en que operan las empresas en el mundo de hov.

Sin embargo, en el período intermedio desde que comenzó el trabajo de planificación y compilación de la publicación, otro problema verdaderamente trascendental nos ha enfrentado a todos a nivel mundial: la pandemia del coronavirus (COVID-19).

Hemos decidido mantener nuestro enfoque en ESG, ya que es un área que no puede ni debe ignorarse. De hecho, la crisis del COVID-19 ejemplifica la relación interdependiente que una empresa tiene con la comunidad a la que sirve, y destaca el papel prominente que el impacto y los factores clave de ESG tienen para contribuir a la capacidad de recuperación de una compañía. Asimismo, hemos incluido reflexiones de Jim Liddy, presidente de la práctica de Global Financial Services de KPMG. Jim establece seis consideraciones para las instituciones financieras, ya que, junto con los gobiernos, los responsables políticos y otros sectores empresariales, lidian cómo responder y qué medidas tomar. Sin lugar a duda, la crisis desatada por el COVID-19 es un tema al que volveremos extensamente en futuras ediciones.

Es de esperar que el virus sea contenido y las economías se recuperen del impacto. Con ese optimismo, nos enfocamos en la "ventaja" que la agenda de ESG representa para las empresas de servicios financieros en lugar de detenernos en la incertidumbre o la sorpresa ante los riesgos. Destacamos oportunidades, exploramos nuevas tendencias emocionantes y profundizamos en áreas de crecimiento nuevas y emergentes.

Hablamos con los líderes en el campo, como Goldman Sachs, cuyo perfil se describe en la página 8, para conocer cómo están aprovechando la agenda de ESG, enviando así una fuerte señal al mercado. Y destacamos los esfuerzos alentadores a nivel mundial y regional destinados a facilitar la transición hacia un sistema financiero consciente de ESG.

Ciertamente no estamos ignorando los riesgos. Dentro de esta publicación, abordamos los diferentes desafíos que enfrenta la industria hoy en día. Observamos la creciente demanda de enfoques estandarizados para la medición y divulgación de ESG. Evaluamos las expectativas políticas y regulatorias siempre cambiantes y su influencia en la agenda de servicios financieros. Y reconocemos el potencial de una importante interrupción financiera a medida que el mundo avanza hacia una economía baja en carbono.

La diferencia es que, en cada paso, nuestros autores y colaboradores se enfocan en resaltar las oportunidades. Ofreciendo consejos constructivos para enfrentar los desafíos. Y utilizando ejemplos del mundo real para demostrar que la agenda de ESG puede generar resultados positivos para aquellas empresas de servicios financieros que deseen y puedan incorporar ESG en su estrategia y operaciones.

En KPMG, nuestra red de profesionales de servicios financieros está comprometida a desempeñar un papel positivo en el discurso en torno a la agenda de ESG. Nos comprometemos con clientes, gobiernos, autoridades de servicios financieros, reguladores y organismos normativos para ayudar a reducir la complejidad e incertidumbre de la transición. Y estamos tomando medidas para garantizar que nuestras propias actividades estén alineadas y progresen en la agenda global de ESG.

Esperamos que esta publicación sirva como catalizador para la industria de servicios financieros, que inspire optimismo y aliente la acción permitiendo que los ejecutivos de servicios financieros combinen tanto el propósito como las ganancias para el bien común de la sociedad y los accionistas por igual.

En nombre de la red global de profesionales de servicios financieros de KPMG, nos gustaría agradecer a todos los que contribuyeron a esta publicación. Al compartir sus ideas, experiencias y conocimientos, están ayudando a impulsar una industria de servicios financieros más resiliente y exitosa.

Para obtener más información sobre los problemas planteados en esta edición de *Frontiers in Finance*, o para discutir la agenda y la hoja de ruta ESG de su organización, o los impactos de la pandemia, lo alentamos a que se comunique con su firma miembro local de KPMG o con cualquiera de los autores enumerados en esta publicación.



Ricardo Anhesini Socio líder de Servicios Financieros de KPMG en América del Sur



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

Contents

Chairman's message

Cover story:

Goldman Sachs: Leading towards a sustainable future





New models for an **ESG-aware financial system**

Driving smart-city development New solutions for creating bankable

smart-city developments.

Promoting ESG in Asia Pacific: Asset managers lead the way

A look at ESG investment actions by countries and companies in Asia Pacific.

From protection to prevention: Insurers respond to risks of natural disasters

A look at the impact of climate change with more frequent, intense and destructive events.



Political and regulatory landscape

12 The COVID-19 evolution of capitalism

COVID-19 highlights the importance of delivering societal impact beyond financial returns.

16 Embedding ESG into banks' strategies

How increasing interest in ESG is playing out in a bank, its strategy, underwriting, external disclosures.

20 Preparing for climate-related disclosures

Insurers address climate governance, strategy, risk management and measurement aspects of their underwriting and investing activities.

Diversity and tax become key components of ESG

A look at how tax and diversity on boards can help the sustainable long-term development and financing of assets.

Creating trust in ESG data

Using distributed ledger technology (DLT) to share verifiable ESG data, in real time, across all parties.

32 A new way of looking at climate risk for physical assets

Climate change is creating new risks and societal needs highlighting the urgency for insurers to adapt services to the shifting landscape.

Overseeing the transition: Central banks move on climate change

What financial system stakeholders need to know about central banks' action on climate risk.

The politics of ESG: Where are governments heading?

An interview with Eurasia Group and KPMG on the complexities of politics and the ESG agenda in light of the coronavirus.

The beginning of the ESG regulatory journey: Asset managers navigate sweeping EU sustainability regulations

Key elements of the forthcoming EU sustainable finance regulation and its expected impacts.

48 Towards consistent and comparable ESG reporting

Measurement and

reporting

In this article we discuss the IBC consultation on common metrics and consistent reporting of sustainable value creation.

52 Creating an impact management framework

A look at the Cambridge Institute for Sustainability Leadership (CISL) Investment Impact Framework for assessing portfolios of listed equities.

Spotlight on coronavirus

- Six considerations on the impact of COVID-19
- 60 Central banks respond to COVID-19

Chairman's message

Anew view on value

James P. Liddy Global Chairman, Financial Services KPMG International

We are living in exceptionally challenging times. COVID-19 is severely testing the resilience of individuals and families, economies and businesses. As I note in an article on page 6, financial services institutions are on the front line of helping economies cope, providing liquidity and support to corporate and retail customers.

However, as governments, businesses and citizens start to look towards the 'new reality' of life after COVID-19, considerations related to environment, social and governance (ESG) issues are rising up the agenda. As Alok Sharma, the UK Climate Secretary and president of COP26, recently noted, "the world must work together to support a green and resilient recovery, which leaves no one behind." Financial services organizations will be expected to be at the forefront.

Indeed, the days where companies could be evaluated, most predominately, by their growth, profits and go-forward prospects are now gone. Today, what people really want to know about is the company's culture, values and purpose. That is forcing a massive change in the way financial services firms operate and compete.

As we move through the current pandemic we see the ESG agenda becoming even more relevant.

It's not just that customers, regulators and investors are becoming more socially- and environmentally-conscious (and they are). It's also that financial services firms (and their supervisors) now recognize that ESG is the new lens through which companies will be evaluated, and those that not only embrace the principles, but positively demonstrate their commitment through action, will be clear winners going forward.

My conversations with executives suggest many financial services firms are starting to embrace the ESG agenda in earnest. The reality is that, in the past, most financial services firms were approaching the issues rather reactively; the focus was often on building a 'defendable position' that could be brandished if and when the business was challenged. ESG was viewed as little more than a reputational risk to be managed.

"

... ESG is the new lens through which companies will be evaluated, and those that not only embrace the principles, but positively demonstrate their commitment through action, will be the clear winners going forward.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

¹ https://www.bbc.com/news/amp/science-environment-52418624

Chairman's message

Now, however, asset managers, insurers and banks are starting to see ESG as a centrist principle (much like cost, compliance and customer experience) that must be incorporated into the very core of the organization's decision-making and strategic processes. It is the lens through which the board and the executive team view their future. It is the prism through which they demonstrate their values and purpose. Goldman Sachs, featured on page 8, is a prime example of an organization placing ESG at the center of their strategy.

The upside of action

While it would be nice to think that financial services executives are embracing the ESG agenda for purely altruistic reasons, my conversations with industry leaders suggest many see a significant 'upside' to taking a leadership position now.

In part, the leaders are seeking to take advantage of a clear shift in social expectations. They understand that customers are increasingly judging companies based on their action — both in dealing equitably with customers harmed by COVID-19 and on the ESG agenda. They see growing demand for ESG-linked products and services. And, they assume (likely correctly) that their focus on ESG will bring them new customers, new capital and new revenue streams.

Many also recognize that regulators, policy makers and oversight authorities are starting to see ESG as part of the larger systemic risk environment. While formal regulation has (to date) been slow to emerge, the leading financial services organizations are striving to get out ahead of the regulatory stick. They are looking to be masters of their own destiny.

Some also see action on the ESG agenda as a way to help solve their human capital and intellectual property challenges. They understand that the best and brightest of today's talent want to contribute to more than shareholder returns; they are looking for companies that share their own personal purpose and values. Smart financial services firms are using the ESG agenda to attract the talent and capabilities they need going forward.

At the end of the day, however, most financial services executives understand that new risks bring the potential for new rewards. But reaping those rewards requires them to gain significant experience and capabilities ahead of their competitors. The skills they develop, the partnerships they build and the data they capture in their ESG activities today will allow them to identify those new opportunities and maximize their rewards tomorrow.

Start executing

However, as this edition of *Frontiers* in *Finance* clearly illustrates, the path towards creating value from ESG is far from clear. COVID-19 may have focused minds on the need for faster action on the ESG agenda, but it has also demonstrated that there are many complexities and considerations that must be understood and managed. Financial services leaders will face some daunting questions. Indeed, many financial services executives are not even sure where they should start.

My advice is to begin with an introspective look at your organization, its culture and its values to define a clear purpose around the ESG agenda. Consider what customers, investors and regulators will expect from your organization in the future. Figure out how you will measure your success and progress. Then translate that purpose into specific actions and steps that demonstrate you mean what you say.

Perhaps most importantly, my counsel to financial services leaders is to just get on with it. In this arena, actions speak much louder than words. The winners will not be those that talked the loudest but rather those that made the most impact.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

Political and regulatory landscape

Contributor



James P. Liddy KPMG International

E: jliddy@kpmg.com Jim is the Global Chairman, Financial Services, KPMG International. He also leads KPMG in the US' Financial Services practice. Prior to assuming his current roles, Jim served as Americas Leader, Global Financial Services. **Spotlight on COVID-19**

Six considerations for financial institutions in dealing with the impact of COVID-19

James P. Liddy

Global Chairman, Financial Services KPMG International

ith COVID-19 still gripping the world and posing enormous health, societal and economic challenges to us all, I'd like to share some perspectives based on discussions that I and the Global Financial Services Leadership Team are having with colleagues and clients of KPMG member firms.

The main consensus is that we will be dealing with the effects of COVID-19 for the foreseeable future. The economic shocks are already looking profound, even in the world's strongest economies. We have seen central bank stimulus packages on a scale not known before, interest rates are at record lows in many major markets and governments have announced extraordinary support measures. But still, recovery back to anything like economic health may take quite some time.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

Financial services business leaders across the globe are consistently focused on six principle challenges in dealing with the impact of COVID-19 and in dealing with the increasingly stringent containment measures that governments are putting in place:

Chairman's message

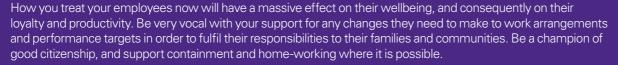
Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESG aware financial system

Measurement and reporting

Political and regulatory landscape

Employees



Financial services institutions all over the world are making significant changes to working arrangements — in some cases speaking with regulators to ensure that these meet compliance expectations — and this is helping them continue to deliver services to their customers.

Customers



In severely hit countries, business customers are experiencing urgent needs as revenues are disrupted while, on the personal side, hard-working people's incomes are coming under threat. The role of financial institutions becomes more important than ever — where possible, providing liquidity, support and necessary forbearance to personal customers undergoing temporary difficulties. It is important too that they give regular reassurance on continuity of service delivery. Customers also need to know how their providers are dealing with issues directly related to COVID-19 — health and travel insurance, investment portfolio performance and online payment facilities. For companies, effective digital delivery of services is essential while organizations deal with staff shortages, office closures and other public health protection measures (e.g. businesses refusing to handle cash).



Liquidity

Financial services companies need to thoroughly understand their available capital and liquidity resources and to assess the resilience of these. Central banks have been delivering enormous stimulus packages in order to offset a larger, systemic liquidity crunch. This is bringing down borrowing costs, but there is a risk that some companies will hoard cash and open credit lines to keep their businesses going through the crisis.

Supplier relationships and third-party dependency



Financial services companies (and their customers) have substantial third-party networks — vendors (including in-person agent networks), outsourcing partners, technology providers, etc. They need to regularly assess and monitor these third-parties on information security, business continuity and other risk domains. The COVID-19 impact forces companies to review these suppliers, assess which are most likely to be impacted, which are critical to ongoing business operations, and where they need to urgently mitigate risks posed by these relationships.

Communications and transparency



As the business and economic impacts of COVID-19 bite, financial services companies will need to ensure that they are communicating effectively with multiple stakeholders: employees, customers, shareholders and regulators. The situation is a breeding ground for disinformation and rumour, so financial services companies need to ensure that they are clear about the steps they are taking to manage the impact of COVID-19. Regulators expect financial services companies to focus on and ensure continuity of their core operations, including support for their customers. Financial services companies need to regularly assess their digital communication capabilities, and how to leverage such capabilities to communicate with customers and the broader marketplace.

Scenario planning



Financial services companies are in the business of imagining the future — understanding the significant immediate challenges to society and economies posed by COVID-19 and how this will impact the interconnected financial system. They are using their scenario modeling and contingency planning expertise to help themselves and their customers to make good decisions in the face of a highly volatile operating environment. They will also need to incorporate new indicators, prioritized by the COVID-19 outbreak, into their decision-making activities.

At a time of uncertainty it is important that we share our insights and experience as much as possible, helping each other to contain and mitigate the impact of COVID-19 on the financial system and the broader economy. KPMG professionals are speaking every day with financial services business leaders, and will continue to <u>share our insights</u> into how the industry is responding.

Cover story Leading towards a sustainable future Goldman Sachs looks to become the 'go-to' financial institution for sustainable finance. Kara Mangone, Goldman Sachs Kyung-Ah Park, Goldman Sachs Jitendra Sharma, KPMG in the US

8 | Frontiers in Finance



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

"The needs of our clients will increasingly be defined by sustainable growth," wrote David Solomon, chairman and CEO of Goldman Sachs in a recent editorial in the Financial Times¹. "Our firm's long-term financial success, the stability of the global economy and society's overall well-being depend on it."

And with that, Mr. Solomon announced Goldman Sachs — one of the world's leading global investment banking, securities and investment management firms — would be mobilizing US\$750 billion through financing, investing and advisory activity over the coming decade to address climate transition and inclusive growth. The firm would focus on nine key areas, he noted, including clean energy and transport, sustainable food and agriculture, and financial inclusion.

While the headline number certainly grabbed the attention of many in the financial industry, the reality is that Goldman Sachs has always been one of the original pioneers of sustainable finance and envrionmental, social and governance (ESG)-related investing. They were one of the first banks to publish a comprehensive environmental policy framework. They also helped bring one of the first vaccine bonds to market when they led the International Finance Facility for Immunisation (IFFIm)'s inaugural bond, a US\$1 billion 5-year benchmark issuance, when they were founded in 2006 before "social bonds" existed as a discrete concept. And they were early innovators in the green bond and impact investing space.

"In many ways, we have always been at the forefront of the ESG agenda," noted **Kyung-Ah Park**, Head of Environmental Markets and Innovation in Goldman's Sustainable Finance Group. "But we're not doing it due to normative considerations and as a way to make others feel good about us. For us, sustainability needs to become a core muscle that we flex to serve our clients and create sustainable economic value."

Focusing on the opportunity

Goldman Sachs certainly believes there is massive value to be created in the space. And it has seen demand for sustainability-

linked services increase dramatically, particularly among corporate clients — including those in traditionally more carbon intense sectors — and pension funds, institutional investors and public sector funds.

"Over the past 12 to 18 months, the dialogue from our clients has really accelerated," noted **Kara Mangone**, Chief Operating Officer of the Sustainable Finance Group. "It's not just the volume of requests and interest we are getting — it's also the depth and complexity of the challenges our clients are trying to solve. It's becoming incredibly strategic and multifaceted."

Recognizing that the firm would need to take a much more proactive and coordinated approach, Goldman Sachs created the Sustainable Finance Group with a mandate to partner with all of the firm's global businesses to drive innovation, serve clients and capture emerging opportunities related to climate transition and inclusive growth.

"The expertise and insights we can harness for sustainable finance are different in Investment Banking than those in the Global Markets or Asset Management Divisions, but also synergistic and incredibly expansive." noted Ms. Park. "Our focus is on partnering with all of the businesses to deliver our holistic capabilities while coming up with the right strategy and the right products and services that make sense for each of the businesses and our clients."

Taking a leadership role

According to Ms. Park and Ms. Mangone, many of the group's businesses are already 'leaning into' the opportunity. Goldman's Investment Banking Division has brought a number of innovations to the ESG bond market, such as working with the Government of Ecuador to create the world's first sovereign social bond and leading the world's first dedicated climate resilience bond, issued by the European Bank for Reconstruction and Development (EBRD). Additionally, to help alleviate the economic and social impact of COVID-19, in 2020 Goldman Sachs has led over US\$20 billion of COVID-related bonds globally.



Our focus is on partnering with all of the businesses to deliver our holistic capabilities while coming up with the right strategy and the right products and services that make sense for each of the businesses and our clients.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

Measurement and reporting

¹ https://www.ft.com/content/ffd794c8-183a-11ea-b869-0971bffac109

They also led the first non-profit green bond for conservation, bringing together both climate and inclusive growth goals. Other divisions have also been pioneers in renewables — Goldman Sachs Renewable Power Group, a private company managed by Goldman Sachs Asset Management, is one of the largest owners and operators of distributed generation solar assets in the United States and provides risk-adjusted clean energy investment opportunities for investors.

In his Financial Times editorial, Mr. Solomon notes his organization's leadership in structuring the world's first-ever general sustainability performance linked corporate purpose bond for an Italian multinational energy company. Simply put, the bond offers investors an extra 25 basis point coupon if the company fails to meet its stated sustainability key performance indicator (KPI) goal (which is to have renewables be at least 55 percent share of its installed power capacity by the end of next year).

"The markets really embraced that deal because it shows the company has a holistic, sustainable strategy," noted Ms. Mangone. "Investors were attracted to the very tangible covenant that showed the company had skin in the game. And they also wanted to invest in a company that is at the forefront of the climate transition, taking measurable steps to become more resilient and drive stronger growth."

While the firm is clearly focused on becoming a steward for companies moving towards the low-carbon economy and driving inclusive growth, leadership is also clear that they will not simply abandon their carbon-intensive clients. "The world will continue to produce and use fossil-based fuels, airplanes, cars and industrial goods," acknowledged Mr. Solomon. "And Goldman Sachs will continue to support clients in transactions that are important to economic activity."

However, the firm is also very clear that their plan is to help these clients move through the climate transition in a way that allows them to achieve sustainable growth. In large part, this is because Goldman Sachs' own internal research and analysis suggests that some industries — such as coal-fired electricity generation facilities are simply no longer economically viable over the long-term.

"We are fundamentally in a long-term client relationship business. As such, our goal is to engage with clients across all sectors including those in more carbon intense areas to help them with their diversification plans and strategies," noted Ms. Park. "That is the right thing to do to better serve our clients, manage risk, and help address the climate transition. But, ultimately, there will be difficult decisions to decline certain financings, such as in thermal coal, if clients do not diversify."

What makes a leader?

Our conversation with Ms. Park and Ms. Mangone suggest Goldman Sachs' growing success in the market is influenced by three key aspects: leadership, collaboration and expertise.

The leadership shown by Goldman's executives and management teams is famous. For his part, Mr. Solomon spearheads his own firm's actions on the climate and inclusive growth agendas. In 2019, Goldman announced new hiring goals for all analysts and all entry-level associates as well as a requirement to interview two diverse qualified candidates for each open role where available in an effort to increase the representation of all diverse professionals across seniority levels. Mr. Solomon also announced in January that the firm will only underwrite initial public offerings (IPOs) in the US and Europe for companies with at least one diverse board member, rooted in Goldman's commitment to driving inclusive growth through their work with clients. In addition, under Mr. Solomon's leadership, the firm has joined the UN's Climate Finance Leadership Initiative and serves as a founding member of the Climate Leadership Council.

The Sustainable Finance Group also has the support of the firm's most senior business leaders from across the globe. The Investment Banking Division, recognizing that sustainability is a core part of their clients' agenda, formed a dedicated Sustainable Solutions Council. The group is responsible for coordinating across industry and product disciplines globally to drive content and innovation with client coverage professionals, to help provide corporates with the most comprehensive sustainability expertise available, and to capture

It's not just the volume of requests and interest we are getting — it's also the depth and complexity of the challenges our clients are trying to solve.



Cover story: Goldman Sachs: Leading towards a sustainable future

opportunities in this fast-growing segment across financing and advisory. The Global Markets Division and Goldman Sachs Asset Management also recently launched their own respective Sustainable Solutions Councils, made up of traders, investment professionals and others to share expertise on sustainable finance and investing, as clients search for ways to achieve climate-change investment commitments.

"Within every division and in every market, we have leaders that are really engaged and focused on driving this into everything we do for our clients," added Ms. Park.

That has allowed the Group to encourage the second key aspect: collaboration. Rather than trying to dictate the rules of the game to the businesses, the Sustainable Finance Group works hand-in-hand with them to develop and understand the 'natural roots' of sustainable finance within each of the divisions. What are the touchpoints? Where are the opportunities? What are the tough questions?

"We always want to be in a place where our colleagues — whether investment bankers or investors — want to bring us in because they understand the commercial value that our perspective can provide," noted Ms. Mangone.

This requires deep expertise — the third key ingredient to Goldman Sachs' success. The firm has been clear that they expect their effort to be grounded in a core economic view that is based on historical research and future growth expectations. "We are fortunate to have world-class research and analytics

capabilities at Goldman Sachs. These insights, combined with our collective experience working with clients, helps us to understand the link between sustainability and performance. In a world where sustainability is mainstream but messy, our approach centers on having knowledge and data to concretely understand the path forward for our clients and markets." added Ms. Mangone.

We can do this together

While Goldman Sachs' vision is to become the 'go-to' financial institution for sustainable finance, the organization also recognizes that supporting an orderly climate transition in an inclusive way cannot be achieved through the efforts of one single firm.

Particularly in areas such as measurement, disclosure requirements and evolving policies, the firm is actively working with a range of stakeholders — even competitors — to help create some clarity and standardization around the global approach to ESG and sustainable finance.

"We see a lot of opportunity to work with various stakeholders to help move the market to a positive place in certain core areas that are particularly relevant to achieving some of these important global goals," added Ms. Park.

As Mr. Solomon noted in his editorial, "There is not only an urgent need to act, but also a powerful business and investing case to do so. That gives me hope for what we can achieve and conviction that financial institutions can play a critical role."

Goldman Sachs is certainly 'leaning in' to play their part.

Helping SME through COVID-19

Goldman Sachs believes small business owners and start-up entrepreneurs fuel the engine of local and national economies all over the world. COVID-19 is putting extraordinary pressure on all of society, and they believe they have a responsibility to help. For small businesses, Goldman Sachs developed a US\$525 million Small Business Stimulus Package that includes US\$500 million to provide emergency loans to small businesses across the US, and US\$25 million in grants to Community Development Financial Institutions (CDFIs) and other mission-driven lenders. They're also providing an additional US\$25 million commitment through their Goldman Sachs Gives COVID-19 Relief Fund to support healthcare organizations, frontline responders, and the hardest-hit communities. To further encourage giving toward relief efforts, they've also established a special matching gift program for their people, up to a total of US\$5 million.

Contributors



Kara Mangone Goldman Sachs

Kara is Chief Operating Officer of the Sustainable Finance Group, which is responsible for partnering with the firm's businesses to drive sustainability-related commercial activity. This includes helping to deliver leading expertise and capabilities to Goldman Sachs' clients across sustainable growth themes as well as driving innovation.



Kyung-Ah Park **Goldman Sachs**

Kyung-Ah is Head of Environmental Markets and Innovation in the Sustainable Finance Group. In this capacity, she works closely with the firm's global business on driving market solutions and innovative financings across sustainability and leads the work on climate transition.



Jitendra Sharma KPMG in the US

E: jitendrasharma@kpmg.com Jitendra is the Global Head of Risk Consulting for KPMG International and Financial Services Advisory Lead in KPMG in the US. He is an advisor to many leading global banks, including the Global Lead Partner for Goldman Sachs. Additionally, Jitendra advises multi-lateral financial institutions for risk and capital management, governance, strategy, analytics, and infrastructure issues.



Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESG-aware financial system

The COVID-19 evolution of capitalism

Tania Carnegie, KPMG in Canada

OVID-19 demonstrates the importance of defining a 'new reality' for investing, and highlighting the importance of delivering societal impact beyond financial returns.







Significant momentum has been building over the past year towards the shift to stakeholder capitalism. The COVID-19 outbreak demonstrates the importance of defining a 'new reality' for investing, and highlighting the importance of delivering societal impact beyond financial returns. Welcome to the era of enlightened capital.

Over the past few months, we have seen several calls to action make their way onto executive and board agendas, driven in part by efforts such as the new Davos manifesto, and the August 2019 letter from the Business Roundtable redefining the purpose of the corporation.

As a result, the business community has been placed under increased scrutiny. Stakeholders want to know how they are adapting their business models to create value for business and society over the long-term. It is a shift away from shareholder primacy which serves to broaden the way companies incorporate stakeholder needs as part of business decisions.

COVID-19 exemplifies the interdependent relationship a company has with the community it serves, and highlights the prominent role that impact and key environmental, social, and governance (ESG) factors have in contributing to the resilience of a business. As we continue to navigate the uncharted waters, there are important lessons fueling the momentum for impact and ESG as the new normal in investing.

Investors drive change

Investors play a critical role in driving the shift to stakeholder capitalism. Indeed, there are now a growing number of retail and institutional investors actively scrutinizing companies based on the way they manage ESG risks and opportunities related to their operations.

Some of these investors are going even further, seeking out opportunities to invest in companies based on the positive impact they are able to create through the solutions their products and services provide to social and environmental challenges.

Many large financial institutions are responding to investor demand. Goldman Sachs announced in late 2019, for example, that they would channel US\$750 billion towards investments related to climate and inclusive growth1. BlackRock — already a leader in sustainable investing — announced in January the launch of its Global Impact Equity Fund as part of its efforts to increase sustainable assets in its portfolio to US\$1 trillion2.

Private equity, hedge fund managers, infrastructure and real estate investors are also getting in on the action. KKR, for example, recently closed its US\$1.3 billion Global Impact Fund. TPG and Bain Capital are preparing to close their second impact investing funds. In February, the Carlyle Group announced their thematic approach to investing with impact across the firm. Many long-standing, dedicated impact investment managers, such as LeapFrog Investments and BlueOrchard (recently acquired by the Schroders Group) are also increasingly active.

KPMG professionals' conversations across the financial services sector suggest we are in the midst of a massive shift as investors seek to deploy capital in opportunities that provide the desired risk/return profile alongside impact. Even casual observers can see that the impact investing market is heading for continued growth.

COVID-19 is resulting in many re-examining both their core values and the factors that drive value in a



As we continue to navigate the uncharted waters presented by **COVID-19, there** are important lessons fueling the momentum for impact and ESG as the new normal in investing. "





¹ https://www.reuters.com/article/goldman-sachs-environment/goldman-sachs-pledges-750-billion-toenvironmental-causes-by-2030-idUSL1N28Q0RL

² https://www.ft.com/content/57db9dc2-3690-11ea-a6d3-9a26f8c3cba4

business. A number of these factors are consistent with the attributes of impactful companies, including an organization's agility, culture, employee and brand loyalty. The intentionality of the positive impact it has on stakeholders is critical, in particular the solutions it offers to societal challenges through its business model.

Many are now asking how can businesses adapt, and do things differently in the future to maintain these gains and emphasize these attributes as we emerge from COVID-19? How can this be more broadly incorporated into investment objectives?

Build trust to build Assets Under Management (AUM)

Another imperative highlighted by COVID-19 is trust. While many investors are embracing the pursuit of impact as part of their investment approach, some are skeptical absent a standard measurement approach, and definitions that govern impact.

Our view suggests that, if financial institutions want to scale up their impact products and attract more investment capital, they will need to focus on improving trust. Furthermore, our experience supporting the growth of impact investing suggests there are three broad areas where financial institutions should be focusing in order to help drive investor engagement and build trust.

1. Transparency and disclosure

 Don't underestimate the importance of communication. Investors want more than just financial reports; they want to understand the rationale behind their fund manager's approach to impact and their plans for continuous improvement.

- Enhanced communication supported by credible data and evidence — is essential.
- Incorporate independent voices. With concerns circulating about 'impact washing', the involvement of independent advisors with the design of your impact approach can bring comfort to investors, in particular as you work to establish impact expertise on your team. A number of fund managers are also incorporating impact assurance as part of their year-end process to provide investors with an independent perspective over the way they are executing their approach.

2. Authenticity and integrity

- Share perspectives. Our conversations with investors suggests they want to know how perspectives and experience are being incorporated and that their financial institutions are iterating their approach as the market evolves.
- Demonstrate intent. Financial institutions are increasingly being asked to demonstrate their wider commitment and ability to contribute measurable impact at scale alongside financial returns. Investors want to know how the general partner sees the potential for impact investing more broadly at their firm beyond a niche fund.

3. Integration of impact

 Don't just measure impact, manage it. A core way to demonstrate intentionality

- around impact is by managing it as part of ownership of the asset. Impact metrics can be leveraged to drive better operational decisions that help achieve impact where it's intended, as well as enhance or create new value.
- Assess the net impact. While the intention of impact investing is to always generate a positive impact, the reality is that sometimes — there can be unintended consequences that also need to be considered. Investors are increasingly asking about the 'net' positive and negative impacts associated with their investments.

Look ahead

There should be no doubt that impact will play a significant role in financial services in a post-COVID-19 world with its appeal to a broader range of investors beyond those who identify as impact investors. With the increasing number of businesses that identify as purposedriven, and the momentum building to establish standards around ESG and impact frameworks and metrics, the work of asset managers and asset owners will become easier.

While we encourage financial institutions to focus on building trust with their clients and investors, we also advocate continued cooperation at the industry level. Indeed, it will take concerted efforts across the impact investing ecosystem if the industry hopes to drive growth in this market.

Considering impact as part of investment decisions is the future of finance. Welcome to the era of enlightened capital.





"

COVID-19 exemplifies the interdependent relationship a company has with the community it serves, and highlights the prominent role that impact and key ESG factors have in contributing to the resilience of a business.



Contributor



Tania Carnegie KPMG in Canada

E: tcarnegie@kpmg.ca
Tania is Leader and Chief Catalyst
of the Impact Ventures practice at
KPMG in Canada. As a recognized
global leader in impact investing,
she created both these roles and is
responsible for devising and bringing
to life KPMG's impact strategy and
for advising clients on developing
strategies that leverage impact as
a means to drive long-term value
creation.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system



/leasurement and reporting

New models for an ESG-aware financial system

Embedding ESG into banks' Strategies

Dr. Niven Huang, KPMG in Taiwan **Arnaud Van Dijk,** KPMG in Canada **Steven Hall,** KPMG in the UK **Julie Patterson,** KPMG in the UK

n the "new reality" that will follow COVID-19, sustainability will be the mantra. Are banks ready?



Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system



/leasurement and reporting

In just a matter of weeks, COVID-19 has changed the dynamics of the global economy. As the crisis unfolded, many businesses and investors shifted their focus from profits to people; human impact became more important than economic impact. Issues related to human equality, access to health services and societal welfare topped the agenda. It quickly became clear that the environment and social issues have a deep and direct influence on economic stability.

At the same time, the economic contagion that followed seems to have infected the carbon economy the hardest. Oil prices plummeted on historically low demand. Carbon-intensive industries — everything from airlines to mining — either shut down or greatly reduced operations. Cars remained parked in driveways.

For a time, the immediate health and economic crisis pushed the sustainability agenda to the back-burner. However, our view suggests that — in the "new reality" of the post-COVID world environmental, social and governance (ESG) will increasingly become central to the economic equation.

Pressure for sustainability rises

As the world starts to look to the future, expect regulators, oversight authorities and policy makers to become more vocal about the need for greater adoption of ESG. They recognize that moving towards a low-carbon economy will create additional complexities for financial services firms. And they are worried that banks are ill-prepared for the types of prudential and conduct risks that could arise — both in terms of the direct risks (i.e. the physical impact of climate change on assets) and the transition risks (i.e. the challenges inherent in a wholesale move towards a low-carbon economy).

Investors will also be ramping up pressure on banks. In part due to the increasing recognition that ESG factors, and climate change in particular, represent material risks that must be managed.

Investors also want to ensure they can continue to earn a return on their investment. Interestingly, recent data suggests that ESG-related funds outperformed the markets over the first quarter of the year — when the

COVID-19 economic crisis started. The MSCI World ESG Leaders Index, for example, outperformed the regular index by 1.36 percent on the quarter. According to Morningstar, 70 percent of responsible investment funds outperformed their peers in the first quarter1.

At the same time, banks are also starting to feel pressure from their customers and from the public at large. Customers want to bank with a firm that reflects their views and beliefs; younger generations, in particular, are said to be choosing their bank based on their ESG credentials.

Facing the tough questions

Bank CEOs know they need to act. In fact, in a global survey conducted by KPMG International in the autumn of last year (before COVID-19), almost three-quarters of banking CEOs said they believed their future growth will be largely determined by their ability to anticipate and navigate the shift to a low-carbon, clean-technology economy². However, most were struggling to come to grips with what that really means for their bank going forward.

Take the transition risk, for example. Bank executives understand the "new reality" will require them to pivot their finance towards greener and more sustainable companies and investments. But they also know they can't just flick a switch; they still have significant books of business wrapped up in loans and instruments to 'brown' assets. As long as those brown assets continue to generate profits for the bank, bank executives will need to balance their duty to finance the ESG transition against their fiduciary duties to shareholders.

Banks, regulators and politicians are also struggling to understand all of the potential unintended consequences of their shift towards more ESG-related business strategies. Declining to renew loans on existing coal mines, for example, may improve a banks' carbon disclosures. But it could lead to significant social implications as mines close and unemployment grows (which, in turn, would have a massive impact on that market's retail lending and potential impairments). Having the experience, insight and data to map all those potential consequences is proving to be a challenge.



As the world starts to look to the future, expect regulators, oversight authorities and policy makers to become more vocal about the need for greater adoption of **ESG. 55**





¹ https://www.investmentexecutive.com/inside-track_/dustyn-lanz/esg-and-covid-19-four-market-trends/

² CEO Outlook 2019, KPMG International, 2019

The leaders move forward

Many banks were already moving down the path towards greener finance. The quantum of ESG-related announcements coming out of banks before COVID-19 were staggering. Goldman Sachs, for example, announced they would spend US\$750 billion on sustainable finance over the next decade. Bank of America pledged US\$300 billion to sustainable investments³. Virtually every large global bank has made some sort of commitment — both financial and otherwise.

What is notable about these announcements is not just the sheer size of the commitments. It is who is making the statements. The Goldman Sachs pledge was made by David Solomon (the global CEO). At the Bank of America it was the Vice Chairman of the global bank. The point is that the leaders are making ESG a CEO-level and Board-level mandate; they are elevating the issue to the highest levels of the organization.

While COVID-19 may have slowed progress somewhat, it is clear that banks continue to embrace the ESG agenda. New products and new models are continually being developed, tested and commercialized. Wealth managers are moving towards ESG-informed investing; retail banks are creating

new sustainable banking and investing products and services, such as green home-improvement loans, carbon neutral banking and sustainable exchange-traded funds (ETFs), aimed at millennials; and capital markets are moving towards 'green underwriting'. Many bank customers (commercial and retail) can now choose from a variety of ESG-linked funds, bonds and assets.

Commercial banks are also creating new products and testing new models. For example, UK firm, Britvic, recently refinanced its GBP400 million (US\$520 million) loan facility with several commercial banks through a sustainability-linked deal that offers the company lower rates if they meet their various ESG targets⁴. It is certainly not the first loan to be linked to sustainability criteria. And all signs suggest it will not be the last.

Interestingly, the leading banks also seem to recognize that sustainability is an issue that requires industry-wide (indeed, financial system-wide) collaboration and response. And they are working with a range of organizations to progress key aspects. A third of the largest banks globally have signed up to the Principles for Responsible Banking. Many are participating in regulatory discussions around taxonomy and green finance.

Leading banks recognize that sustainability is an issue that requires industry-wide (indeed, financial system-wide) collaboration and response.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system



Measurement and reporting

⁴https://www.alobalcapital.com/article/b1kcxskd4hxrgz/britvic-opens-lid-on-sustainability-financing



 $^{^3\,}https://www.cnbc.com/2020/01/24/climate-crisis-investors-putting-money-towards-sustainable-future.html$

Supervisors and regulators, in turn, are also working collaboratively in groups. The Network for Greening the Financial System (NGFS), a group of central banks and supervisors, was created to share best practices around key systemic challenges (such as integrating climaterelated risks into financial stability monitoring and micro-supervision).

Taking ESG seriously

While some big questions and uncertainties exist, it is clear that bank executives can no longer afford to take a 'wait and see' approach. Public and regulatory expectations are rapidly changing and the most competitive banks are already moving to take advantage of that situation.

So what should banks be doing to embed ESG into their strategy? KPMG member firms' work with banks and other organizations across the financial services ecosystem suggest there are four key actions that bank executives should be addressing today.

- 1. Understand your current baseline. More than simply quantifying the financial risks and probabilities, banks should create an understanding of common ESG expectations of key stakeholders and build awareness of leading ESG practices, in particular among senior management and board members. This includes taking time to understand their current practices and exposures, including whether they have the right data, the right capabilities and the right processes to monitor and manage ESG appropriately going forward.
- 2. Know what's expected. While regulatory and supervisory authorities are exploring approaches as to how they might provide specific targets or expectations, bank executives should be talking to their regulatory authorities to understand what is expected of them and how those expectations may change over the short to medium-term. They should also be working proactively with their regulators and authorities to seek out facts, develop standards and identify solutions.
- 3. Put it on your risk radar. For many banks, ESG factors remain a reputational risk. But they need to be more than that. Bank executives (and particularly boards) should be ensuring that ESG risks are a lens through which all decisions are made, in particular in relation to credit and valuation risks in their portfolios, reflecting the strategic nature of these risks.
- 4. Develop a strategy. ESG risks cannot be managed off the side of a desk. It requires banks to develop a robust strategy that is integrated into the overall business strategy for the organization. While the strategy must retain a level of flexibility, it must also be actionable and measurable.

Embrace it

The impact of COVID-19 makes it clear that banks must act to embed ESG into their strategies now if they hope to remain ahead of public and regulatory expectations. The reality is that many leading banks are already taking advantage of the 'upside' to execute a strong and integrated sustainable finance strategy. Those who lag behind face not only increased regulatory and public scrutiny but also constrained growth.

The bottom line is that banks can no longer afford to ignore ESG. Indeed, they must embrace it.

Contributors



Dr. Niven Huang **KPMG** in Taiwan

E: nivenhuang@kpmg.com.tw Niven is General Manager of KPMG Sustainability Consulting Co., Ltd. in Taiwan and a pioneer for promoting CSR, sustainability reporting, SRI, corporate sustainability strategy, and carbon management. Before joining KPMG, he was the Secretary General of the Business Council for Sustainable Development in Taiwan and regularly presents on sustainability both within the jurisdiction of Taiwan and internationally.



Arnaud Van Dijk KPMG in Canada

E: acvandijk@kpmg.ca Arnaud has more than 11 years of sustainability consultancy experience in the public and private sector. Over the course of his career, Arnaud has gained extensive experience working with leading companies and institutional investors to strategically address Environmental, Social and Governance (ESG) issues and disclosures.



Steven Hall KPMG in the UK

E: steven.hall@kpmg.co.uk Steven is a Partner in the risk practice of KPMG UK's financial risk management department. He leads KPMG's work on credit risk, counterparty credit risk, capital management. Basel 2. Basel 3 activities and IFRS9 ECL risk activities in the UK.



Julie Patterson KPMG in the UK

E: julie.patterson@kpmg.co.uk Julie has specialized in the asset management and funds sector for nearly 20 years, having previously worked at the UK Investment Association and as a regulator. She has extensive knowledge of EU regulation and national market structures, produces thought leadership on the evolving regulatory context, and is KPMG's global lead on Brexit for the sector.





Preparing for climate-related disclosures

William (Bill) J. Murphy, KPMG in Canada Arnaud Van Dijk, KPMG in Canada

Iimate change and related risks have truly significant implications for underwriting, investment, and even an insurer's operational activities.







How are the TCFD recommendations impacting insurers?

Ever since the formation of the Task Force on Climate-related Financial Disclosures (TCFD) in 2015 and the publication of their first set of recommendations 2 years later, there has been rapid and significant buy-in from organizations across the financial services spectrum.

This is as it should be — climate change risks are increasingly recognized as one of the key issues facing economies and communities today. Climate risks have been identified by the World Economic Forum as the top threat facing us for the past 4 years consecutively, with WEF recently making the critical observation that "climate change is striking harder and more rapidly than many expected." COVID-19 highlights that natural processes can create previously unimaginable economic and social disruption, whether abruptly or cumulatively.

Action is gathering momentum. Some major institutional investors, for example, are making bold moves. BlackRock CEO Larry Fink has put climate change at the center of his firm's investment strategy,1 while Goldman Sachs has pledged US\$1 trillion of financing and investment in areas that focus on climate.2

The TCFD pillars

Today, more than 900 organizations support the TCFD publicly, with the recommendations becoming the global standard for climate-related disclosures. The rationale is clear. As TCFD chair Michael Bloomberg put it, "increasing transparency makes markets more efficient, and economies more stable and resilient.3"

The TCFD recommendations consist of four pillars — governance, strategy, risk management, and metrics and targets with suggested disclosures against each one. There isn't space to go into detail on each of these here, but suffice to say they pack a punch.

Today, more than **900** organizations support the TCFD publicly, with the recommendations becoming the global standard for climate-related

disclosures.



New models for an ESGaware financial system

00000000

Four pillars of the Task Force on Climate-related Financial Disclosures



Governance

Disclose the organization's around climaterelated risks and opportunities



Strategy

Disclose the actual and potential impacts of climaterelated risks and opportunities on the organization's businesses, strategy, and financial planning where such information is



management

Disclose how the organization manages climate-



Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such

Source: https://www.fsb-tcfd.org

¹ https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter

² https://www.ft.com/content/ffd794c8-183a-11ea-b869-0971bffac109

³ https://www.fsb-tcfd.org/

Take this 22 word recommendation in the Strategy pillar: "Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario." This arguably represents the most complex disclosure recommendation ever made. For example, with no historical data to reference against, no commonly agreed set of climate scenarios/pathways nor consistency in methodologies for the assessment and quantification of climate-related impacts (e.g. how to integrate climate science, macroeconomic and actuarial models) fulfilling this requirement poses a huge challenge. Again, COVID-19 will provide relevant reference points for assessing a sustained decline in the global economy.

What does this mean for insurers?

Clearly, insurers recognize that climate change and related risks have truly significant implications for their underwriting, investment, and even operational activities. The TCFD recommendations mean that all categories of insurers have issues that they need to grapple with and resolve.

Of note, the TCFD also provides supplemental guidance for insurance companies and asset owners that will need to be taken into account.

- P&C with questions to ponder

Let's take property and casualty (P&C) insurers first. While they are already well aware of climate perils, they need to better assess and explain their strategies for a changing climate, making clear how they are addressing them and showing how resilient their portfolio is over various time horizons.

They need to ensure that the expected impacts of climate change are reflected in their actuarial models — which means thinking about such issues as whether adjustments will be necessary to the coverages they offer, whether their pricing structures need to change, and whether they need to reconsider their commercial exposures to certain industry segments.

In some instances, there could be an opportunity to expand their coverage such as offering insurance against over-land flooding once they develop the necessary data sources and underwriting models. However, in the case of other specific risks and geographies, they may have to scale back coverage — for example, in California where offering fire risk cover has become increasingly problematic.

The TCFD recommendations ask them to categorize and report on exposures to both acute risks (e.g. the increasing frequency and severity of hurricanes) and chronic risks (such as the 'compound extremes' that we are seeing in Australia, where bushfires have been followed by flooding from tropical storms,4 or longer term trends like increased home break-ins as a result of repeated Australian heatwaves⁵). Sophisticated use of big data will increasingly be needed in their analyses to identify unexpected correlations.

— A slow-down for motor?

Consideration of transition risks will be particularly important for the automotive insurance business. Consider that, with the widespread push towards lower carbon economies, the types and usage of vehicles will change. The increasing use of shared transport modes will create a need for more use-based policies ('pay as you go' insurance) rather than time-based (paying a fixed annual premium).

Meanwhile, with autonomous vehicles coming down the track, questions of liability for accidents will pressingly need to be resolved.

The TCFD recommendations would expect — disclosures of the strategic implications of such trends where material.

— A complicated life

For life insurers, there may on the face of it appear to be a lower potential impact — but still there are important issues to think about. Chronic physical risks such as unprecedented average

temperature increases, with corresponding increases in the range and transmission rates of infectious diseases could have unexpected mortality and morbidity impacts. Insurers need to proactively model such scenarios, rather than waiting for the trends to appear in statistical tables.

A life insurer may also have a large presence in the group benefits space, providing cover for groups of corporate employees for medical care, dental care and more. There could be unanticipated second or third order impacts here as well. For example, might climate change cause some naturally-sourced raw materials in medicines to become scarcer and therefore drive up medication costs? How should insurers factor this in and avoid experiencing losses?

There has been an emerging trend toward offering long-term care coverage. These may be hybrid products with a life insurance component. Premiums may be for the life of the policy or to a fixed anniversary date/age, with multi-year premium guarantees and return of premium on death options. Again, insurers will need to think through the possible impacts of climate change on life expectancies, health outcomes and covered expenses when structuring and pricing these products.

— Investments under scrutiny?

Then there is the investment side. Insurance companies are major institutional investors in their own right. While there is no prescription in the TCFD recommendations on what stocks or activities it is acceptable to invest in, there is supplemental guidance under the Metrics & Targets pillar for asset owners to disclose the carbon footprint of their investment portfolios. Although the TCFD acknowledges that a carbon footprint does not necessarily represent a risk measure, and is subject to various data and methodology constraints, such disclosures could inevitably lead to a greater focus and increased questioning on whether an institutional investor is putting its money behind green and sustainable businesses and enterprises.





⁴ https://www.nytimes.com/2020/02/23/world/australia/climate-change-extremes.html

⁵ https://www.insurancejournal.com/research/app/uploads/2018/08/IAIS_and_SIF_Issues_Paper_on_Climate_Change_Risks_to_the_Insurance_Sector_-1.pdf (see page 18).

Challenges on the road ahead

So, where does all this leave insurers and what does the journey ahead look like? In short, it could soon begin to get much harder.

Could the recommendations become mandatory?

At the moment, the TCFD recommendations are voluntary — but Mark Carney and others have indicated that they would like to see them become mandatory, especially in regulated sectors.6 Securities regulators and stock exchanges are taking TCFD very seriously, alongside industry regulators.

Financial sector regulators tend to focus on stress testing — requiring companies to model the impacts of a single event at a point in time. The TCFD recommendations, however, place more emphasis on the broader concept of scenario analysis — where businesses need to model the effects of multiple variables over an extended period of time. This is a more challenging proposition.

If voluntary TCFD implementation gathers pace and regulators in fact get behind making TCFD mandatory, then we could see a significant acceleration in timelines. Many clients are currently working on a 3-year-plus timeline for implementation of TCFD — focusing first on qualitative disclosures, with scenario analysis disclosures further down the track. They would need to accelerate their programs significantly if regulators up the tempo.

Location of disclosures also matter. Currently, reporting is voluntary and is generally a hybrid of detailed disclosures in a sustainability report and summary information in the annual report. Mandatory disclosure would likely see more length and detail having to be given in annual report.

— Second and third-order impacts

Reporting is one challenge, but there are others. As we have seen, identifying second and third-order impacts of climate risks is critical but hard to do. Insurers need to look across all the outcomes that could occur from climate change — not predicting which scenario is most likely to happen, but identifying the possibilities and considering how resilient their strategy is across multiple warming and transition scenarios. Then insurers and reinsurers need the agility to adapt strategies and coverages as the likely path becomes clearer over time.

Questions of philosophy

But another major challenge is almost a philosophical one. In 2019, there were global losses of around US\$150 billion from catastrophic events — but only US\$50 billion of that was covered by insurance.7 Are we, as societies, happy that up to two-thirds of these costs are effectively covered by governments (and so, taxpayers) through emergency funding? Are we prepared as individuals to directly or indirectly bear these growing uninsured losses? Given the unprecedented government debt being incurred during COVID-19, will there be any taxpayer capacity to continue to do so?

This is a question that is likely to come increasingly into focus in coming years as climate change impacts grow. As an industry, insurers need to be on the front foot, engaging with governments, regulators and stakeholders, providing product innovations, and supporting clients and broader communities.

As with the battle against climate change itself, there is plenty for insurers to do and only limited time.

Contributor



William (Bill) J. Murphy **KPMG** in Canada

E: billmurphv@kpma.ca Bill is KPMG in Canada's National Climate Change and Sustainability leader and a Partner in Governance & Risk Management. He is also Chair of the Canadian firm's Global Audit Growth work stream and the Senior Advisory and Assurance Services Partner on multiple key global and national accounts.



Arnaud Van Dijk KPMG in Canada

E: acvandijk@kpmq.ca Arnaud has more than 11 years of sustainability consultancy experience in the public and private sector. Over the course of his career. Arnaud has gained extensive experience working with leading companies and institutional investors to strategically address ESG issues and disclosures.





⁶ https://www.fsb-tcfd.org/

⁷ Tropical cyclones causing billions in losses dominate nat cat picture of 2019. (2020, January 08). MunichRe

New models for an ESG-aware financial system

Diversity and tax become key components of ESG

Minh Dao, KPMG Australia Mark Spicer, KPMG Australia David Neuenhaus, KPMG in the US

e have begun to see a broadening of the constituent issues that comprise environmental, social and governance (ESG) agendas such that factors including tax transparency and diversity have become ever more embedded.





Financial institutions are extending their influence to drive positive change

ESG agendas have shot to the fore in the last couple of years, with investors across the institutional base increasingly using them to drive positive change. This extends far beyond ensuring their own internal compliance, becoming an active mechanism to influence the governance and choices of their investees too. As discussed at KPMG's 8th annual Global Sovereign Wealth and Pension Funds Tax conference in September 2019, institutional investors are now driving positive ESG practices in their business decisions.

Why this is happening now is a complex question, a discussion of which could probably fill a whole publication in itself. There is growing conviction in boardrooms that these issues have become core to brand integrity and investability, at the same time as political and regulatory impetus for change has been strengthened. Simultaneously, there has been a shift in the attitudes of many consumers who are putting ever greater emphasis on issues of sustainability and ethical integrity. Meanwhile, a new young generation — spearheaded by figures such as Greta Thunberg — is becoming increasingly vocal over concerns about the climate change risks facing our planet.

Now, more urgent than ever, as the world comes to terms with COVID-19. corporate values and attributes that provide support to societies and communities will be of the utmost importance. COVID-19 could cast a new perspective on the fundamental significance of ESG activities.

Prior to COVID-19, it was the 'E' of ESG that was on everybody's lips. It was a dominant theme at this year's World Economic Forum in Davos. While COVID-19 may currently be overshadowing the climate risk agenda, there is no doubt that it will come back. particularly as many countries have experienced the unintended climate benefits of cleaner air and water during the COVID-19 shutdowns.

Many policymakers know they need to act. And there is growing momentum among investors, asset managers and insurers to encourage a shift to sustainable investment assets. So institutional investors and asset managers such as BlackRock are making sustainability their "new standard for investing", some global banks have said they won't lend to new assets in certain fossil fuel classes, and a growing number of insurers are moving away from underwriting new assets that are not 'clean'.

Crucial as it is, ESG is about more than the 'E' element. And, indeed, we have begun to see a broadening of the constituent issues that comprise ESG agendas — such that factors including tax transparency and diversity have become ever more embedded.

The diversity business case

Taking diversity first, the debate has moved beyond whether it is the 'right' thing to do to foster diverse boards and workforces — to an acknowledgement that there is a direct commercial case for doing so. The body of empirical evidence that more diverse organizations perform better is considerable.

Investors are now upping the agenda by expecting the entities they invest in to embrace this too. In fact, some fund managers were unequivocal, stating that their research shows that companies with diverse boards "are more likely to achieve superior financial performance.1" As a result, they are prepared to use their shareholder voting powers to encourage it.

The benefits of diversity can reach further than top-line performance affecting issues such as health and safety, which is a key facet of the social pillar. A global mining giant, for example, discovered that the more diverse its workforces were in its sites across Australia, the better the health and safety results. Those sites with a higher proportion of women tended to have fewer incidents and accidents, as well as better employee engagement generally.



The **benefits of** diversity can reach further than top-line performance affecting issues such as health and safety, which is a key facet of the social pillar.



New models for an ESGaware financial system

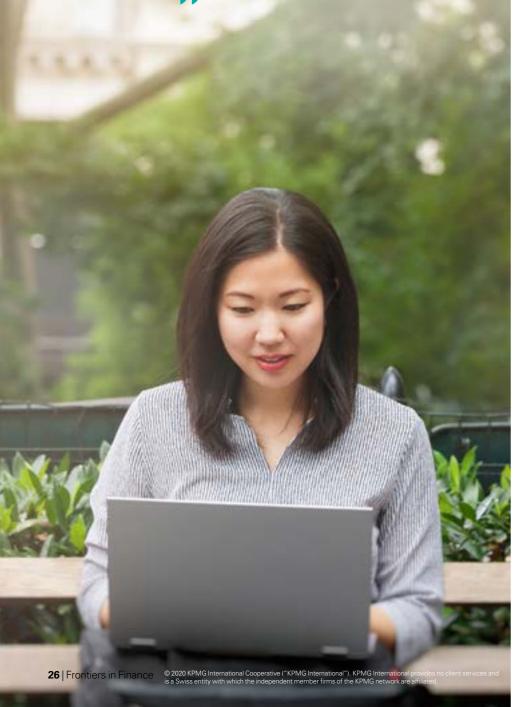
00000000

 $^{^{1}\} https://cdn3.cpp investments.com/wp-content/uploads/2020/05/CPP-Investments-2019-sustainable-investing-properties of the content of t$

"

Crucial as it is, **ESG** is about more than the 'E' element.

And, indeed, we have begun to see a broadening of the constituent issues that comprise ESG agendas — such that factors including tax transparency and diversity have become ever more embedded.



Paying a 'fair share' of tax

The Organization for Economic Co-operation and Development (OECD) drive to create greater tax transparency, with country-by-country reporting rules and a much tighter anti-avoidance agenda, along with local measures from national tax authorities, have put the spotlight on tax as one of the moral issues of our time. After all, revenue authorities collect taxes for governments to invest in hospitals, schools and roads, creating the social infrastructure that improves the lives of communities and nations. The effect of COVID-19 on economies around the world greatly heightens this issue: as economies rebuild, tax contributions from corporates are critically important. We can expect there to be zero tolerance of businesses seen to be avoiding paying their 'fair share'.

Tax has become a key component in the 'S' of ESG and it also plays a significant part in the 'G'. For example, tax paying entities are becomingly increasingly focused on having the appropriate tax risk management and governance framework to ensure material tax risks are elevated to the board for consideration.

There is a careful balance to be struck, of course. Tax is one of many factors which an investment committee must consider when assessing the return on investment. In a competitive bid context, taking too conservative a tax position may lose you the bid, take too aggressive a tax position and you may end up in dispute with the tax revenues.

Institutional investors are also increasingly asserting their influence in portfolio companies to adopt tax risk management and governance frameworks similar to their own. It will be fascinating to see whether this spreads into the public company domain, where it is much harder to do given the challenges of obtaining sufficient shareholder backing.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

00000000

Vleasurement and reporting

Tax incentives — from carrots to sticks?

Tax is certainly not confined to social and governance aspects, however: it is becoming steadily more embedded in environmental questions too. Discussion around carbon taxes as a way of driving decarbonization has been growing in recent times.

Clearly, tax concessions for green initiatives are a highly effective lever. In the US, one can virtually draw a straight line between tax credits for renewable energy projects and investor interest in them — often leading to partnerships between developers and non-energy investors who had sufficiently big tax bases to consume the credits.

We have also seen tax concessions in jurisdictions such as Australia for investments in 'clean building', while in Canada there are strong enticements to invest in solar power. Most developed economies have a growing array of sustainability incentives.

But the question arises, with the climate debate gathering urgency, whether the time will come to flip the equation — and mete out tax 'punishments' for those businesses who do not pursue or invest in more sustainable modes of business? Will we see stiffer carbon pricing, and a form of carbon tax? According to a recent report from the United Nations Principles of Responsible Investment this is one element of "the inevitable policy response".

From that, we can surely expect to see investment institutions increasing the pressure through their ESG policies on portfolio assets to adopt lower carbon, more sustainable business models. This is at the early stages, however. It remains challenging at present for investors to understand where the chief climate risks in a portfolio lie and to evaluate those risks consistently and objectively across different investments. Today's tools are relatively blunt. Carbon intensity is the

most frequent yardstick, but it is only one measure. With so much value at risk, an acceleration in the development of investment ready tools which reflect climate risk and can be applied consistently is needed.

Conclusion

All of these factors point to one conclusion — tax and diversity have become an integral part of any ESG approach. Just like their backing of diversity at the board level, including with respect to gender and the requirement for more transparency around key statistics and diversity metrics, investors are putting tax at the heart of their ESG approach.

As institutional investors and corporates are becoming increasingly transparent about their tax policies, making more information available in the public domain, investors need to ensure that tax governance is up to scratch in the companies they are invested in. Does a tax governance policy exist? Are the necessary controls in place to ensure it is set up correctly and functioning as intended? How are tax issues escalated to the the board? Fundamentally, is the business paying the appropriate levels of tax and contributing to the public purse in the highly challenged post COVID-19 environment?

Some may fear this could lead to an increase in 'green washing' - presenting investments and assets as greener than they are so as to be seen to be ticking the ethical box. But the likelihood is that discerning analysts and stakeholders will be able to see the difference.

Meanwhile, the focus of progressive institutional investors is on supporting fairer, more sustainable and more ethical businesses which, they believe, intrinsically offer the prospect of stronger long-term returns.

Given the economic challenges presented by COVID-19, this sustainable value creation will be needed more than ever before.

Contributors



Minh Dao **KPMG** Australia

E: mdao@kpmq.com.au Minh is an Australian Deals Tax Partner and the Asia Pacific Tax Lead for sovereign wealth funds and pension funds at KPMG. She specializes in infrastructure transactions, including privatizations, M&A, public private partnerships (PPPs) and renewables.



Mark Spicer KPMG Australia

E: markspicer@kpmg.com.au Mark joined KPMG's Sustainability team in 2006. He believes that the integration of ESG/responsible investing as well as the transparent and robust reporting of ESG performance should lead to improved investment opportunities. Mark works across all elements of the ESG/investment value chain.



David Neuenhaus KPMG in the US

E: dneuenhaus@kpmg.com David is the Global Lead for Asset Management Tax and also for the Institutional Investor network, which includes sovereign wealth and pension funds. He has more than 25 years of experience providing planning and structuring services to asset managers and institutional investors. David is concentrated on advising institutions in relation to US and international tax matters.



New models for an ESGaware financial system

00000000





Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

00000000

Measurement and reporting

As this edition of Frontiers in Finance seeks to make clear, financial services firms of all shapes and sizes are looking for ways to include a wider range of ESG data into their decision-making. Some are simply seeking to properly quantify their broader carbon footprint for management and reporting. Others are creating sophisticated new ESG-based products they hope will drive their next wave of growth.

The problem is that ESG data — generally speaking — is inconsistent, poorly verified and non-standardized. As yet, there are no international accounting standards for ESG data; verification and audit approaches remain inconsistent; few smaller companies report any ESG metrics at all.

COVID-19 demonstrated further weaknesses in the collection and sharing of ESG data. With international travel halted and jobsites locked down, traditional verification and audit processes were disrupted. Getting verifiable ESG data in time to make smart investment decisions became exponentially more difficult.

Not surprisingly, many bank, insurance and asset management leaders are now increasingly concerned they may not have the right data at the right quality and timeliness to allow them to truly embrace ESG in the recovery ahead.

Unlock the data dividend

Consider what a 'new reality' economy would look like if everyone in a value chain — or, more accurately, an economic community — were able to see real-time, verified ESG data on their suppliers and counterparties. A massive number of new value propositions and product opportunities would be instantly unlocked.

Banks, for example, could create products that provide financing to asset producers who follow certain sustainability or environmental standards. Asset managers could provide real-time data on the actual carbon footprint of their impact investments. Insurance companies would be free to offer premium discounts to those customers able to demonstrate certain certifications or levels of standards compliance.

Creating enabling standards and systems

There are two big challenges that must be overcome to achieve this utopia. The first is to get international standard setting bodies and governments to come together to agree on a consistent global set of ESG measures and certifications that could be used by all parties to measure ESG risk and impact. Progress was just starting to be made on this front; refocusing attention post-COVID-19 may take time.

The other major challenge is to find a way to share that data, in real-time, across all parties in the respective economic community. And, recently, we have started to see some exciting new solutions emerge. Perhaps the most promising are those enabled by digital ledger technology (DLT).

The rebirth of digital ledgers

You may know DLT by its most popular technology — blockchain. As cryptocurrencies like bitcoin stormed into the public consciousness, blockchain gained prominence as the enabler of the new gold rush. But as the air seeped out of the cryptocurrency bubble, blockchain's reputation fizzled along with it.

Yet, over the past decade, blockchain (and other DLT technologies) have proven they are not a one-horse show. The underlying concept — creating an immutable, real-time, distributed and verifiable shared database of tokenized assets — remained sound. And, more and more, companies were finding that DLT could help them solve some of their more complex data challenges.



Consider what the world would look like if

everyone in a value chain — or, more accurately, an economic community were able to see real-time, verified ESG data on their suppliers and counterparties. "



New models for an ESGaware financial system

00000000

It's already here

In this respect, financial services firms have not been laggards. We are aware of a number of banks, insurers and asset managers who already have DLT or blockchain solutions embedded into their operating models. However, for the most part, these investments and deployments have been largely internally-focused aimed at improving data sharing across the enterprises' more complex business processes (some, for example, are using blockchain to speed up inter-branch foreign exchanges across global lines of business).

Those who tend to stake their reputations on innovation are making even bigger moves. JP Morgan, for example, has created a Blockchain Center of Excellence to explore new use cases and to pilot new solutions.1 HSBC recently announced that it was moving more than US\$20 billion in assets onto a blockchain-based custody platform sometime this year.2

We believe the next step will see leaders apply these capabilities to helping the business set up, evaluate and monitor counterparties' ESG-verifiable data assets.

Putting it to work

The beauty of using DLT and blockchain is that it can be combined with a range of other emerging technologies to enable exactly the type of digitized, verified, tokenized, data-sharing platform that banks, insurers and asset managers so desperately need to unlock innovation around ESG criteria.

Unfortunately, it's not as easy as going out and buying the latest off-the-shelf blockchain solution (and there are many). Indeed, our experience working with a wide range of companies to

create economic community DLTs and blockchain suggests they require significant tailoring and strategic thinking to ensure they fit the use cases they will enable.

The approach to building a DLT of ESG data around, say, rainforests in Borneo that are being tokenized and traded as carbon offsets would be entirely different to one being created around ensuring that development sites in Mexico are following environmental regulation, for example. Some tailoring would also be required to ensure the solution takes into account local regulations, language differences and capabilities.

An emerging field of opportunity

The good news is there are a number of companies (KPMG member firms included) working to develop a wide range of localized use cases that aim to enable financial services firms to quickly and easily set up the type of ESG data sharing platforms they will require to expand into this emerging area.

Given the ongoing disruptions created by the COVID-19 health and economic situation, KPMG professionals firmly believe that much more must be done to explore how DLT and blockchain-enabled platforms might help banks, insurers, asset managers and — critically oversight bodies, overcome their current ESG data gaps.

We hope companies will continue to explore the 'art of the possible'. But we also encourage international standards setters and governments to come together to see how these technologies can be leveraged to create a level of confidence and consistency in the growing ESG market.

We believe the next step will see leaders apply these capabilities to helping the **business** set up, evaluate and monitor counterparties' ESG-verifiable data assets. "





¹ https://www.jpmorgan.com/global/blockchain

² https://www.reuters.com/article/us-hsbc-hldg-blockchain/hsbc-swaps-paper-records-for-blockchain-to-track-20billion-worth-of-assets-idUSKBN1Y11X2

5 things to know about using DLT to manage ESG data

DLT can create trust.

It provides the ability for everyone in the supply chain to see their counterparties' verified ESG data in real time.



Understand incentives.

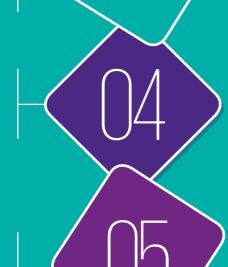
The way you build trust will largely depend on understanding the incentive all participants have to collaborate.



Focus on the use cases.

Any solution will first require consideration of pain (and trust) points that technology solutions can help solve.

Be prepared to customize. Take the time to understand and embed local nuances (like languages) and regulatory



Consider value add applications.

Think of DLT as a way to unlock innovation in ESG product and service development.





Laszlo Peter KPMG Australia

E: laszlopeter@kpmg.com.au Laszlo leads KPMG's blockchain services practice for Asia Pacific. His mandate is to work with clients to co-develop distributed ledger solutions in Australia and internationally. He has over 20 years' experience working with large corporates, technology start-ups and professional services organizations, bringing expertise from banking, securities trading and fintech start-ups.



James O'Callaghan **KPMG China**

E: james.ocallaghan@kpmg.com James is a Partner in KPMG China with a strong focus on the financial services sector. He specializes in business transformation. IT transformation, business review and process enhancements, governance, benchmarking and performance improvement programs across ASPAC and Europe.



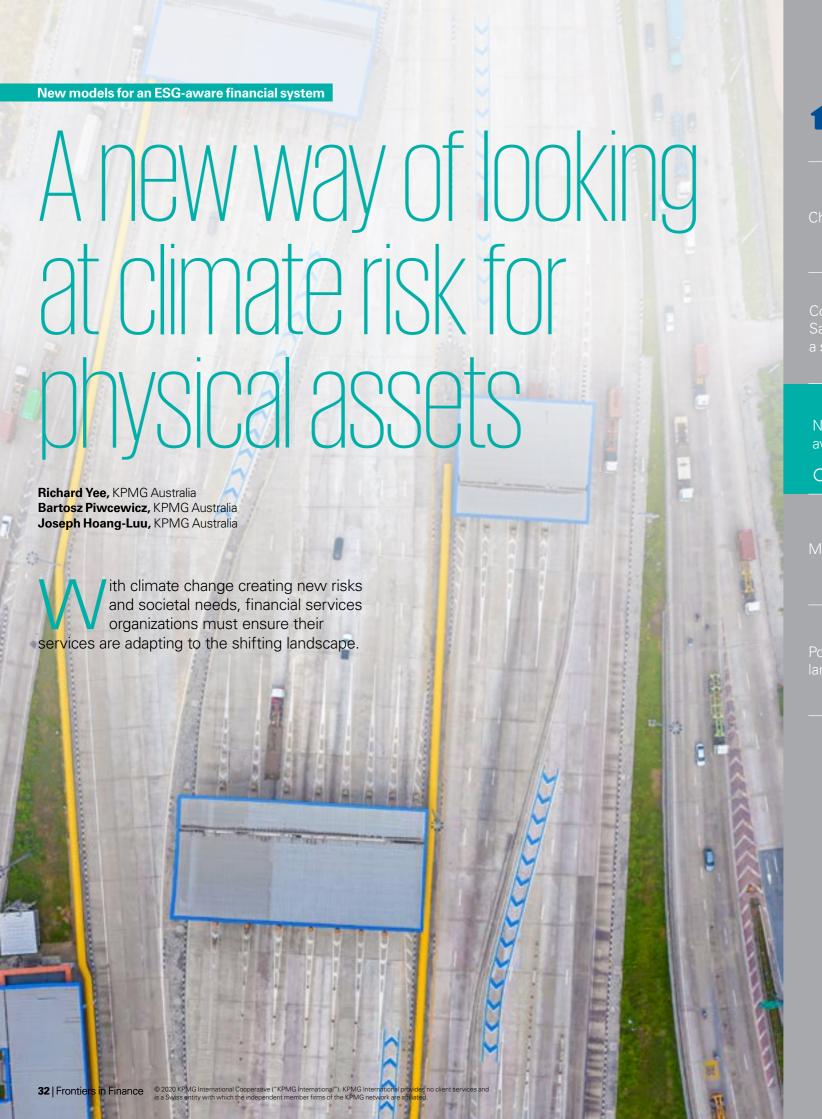
Tim Denley KPMG in Japan

E: timothy.denley@jp.kpmg.com Tim is a Partner with KPMG in Japan passionate about helping organizations solve complex business problems through innovation and the use of technology.



New models for an ESGaware financial system

00000000





Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system

00000000

Measurement and reporting

As we go to publication, countries throughout the world are coping with the health crisis caused by COVID-19 along with its wide-ranging societal and economic impact. There still are a lot of unknowns, but one thing is clear — the virus will have profound and lasting implications for all of our lives as well as every business and industry.

In the insurance space, cover is wellestablished for damage to physical assets — but do climate risks mean that new hybrid products are needed or that organizations outside of insurance need to have deeper understanding of their exposure to weather events to adapt?

From work that KPMG Australia have been conducting for a major Australian toll road operator, the answer may very well be 'yes'.

Admittedly, Australia is an extreme example. The news reports that have been beamed around the world of the bushfires and soaring temperatures sadly testify to that. But even if it is an outlier, the situation in the country may show the direction of travel that many other parts of the world are heading in.

It was a growing awareness of climate shifts that led the client to want to model the possible impact of future climate change on its business.

Modeling the business impacts

What makes this a bit different is that this client wasn't only concerned with the direct costs of weather events to its assets — but wanted to take a wider view and model the potential impacts of climate risks on its broader profit and loss performance. In other words, truly embedding sustainability issues into its business vision and strategy.

This involves taking extreme weather events such as excessive rainfall or prolonged extreme heat and assessing what impact they could have on the client's business across four key indicators: traffic volumes, average speeds, traffic incidents/accidents, and toll revenues.

Traffic volumes and toll revenues are directly linked of course, and their importance to a toll road operator needs no

explanation. Average speeds are important because if travellers suffer slow moving traffic and congestion, they may seek alternative routes or modes of transport in the future. Traffic incidents are critical because safety is always key priority.

Working with the client in a team with a wide range of analytical, data and catastrophe modeling skills, we have been able to assess historical data from the client and from other sources such as the wider road network and the department of meteorology. Linking these data sets together, we then look for evidence of the impact of weather events on the client's key indicators, across its own road assets and the surrounding network.

From this, KPMG professionals then also modeled the likely impacts of climate change under different warming scenarios using a collection of catastrophe and climate risk models. For example, assuming 4°C warming above pre-industrial averages by 2100. This 4°C rise, however, is only the average — at its extremes it could be perhaps 10°C meaning temperatures conceivably hitting 60°C in Australia.

KPMG Australia specialists are currently compiling our findings and creating visualizations of the impacts on the client's KPIs over a geo-spatial map.

Uncovering gaps in insurance

Our analysis so far, is revealing that climate changes are likely to have impacts on the client's business that are not currently insurable.

For example, consider an extreme heat event where temperatures reached 60°C. Authorities might order schools to close; companies may tell employees to stay at home; sporting and other events may be canceled. The result would be a marked reduction in traffic on the operator's roads — and therefore a marked reduction in revenues.

The same could apply if there was torrential rainfall, deterring people from traveling. This rainfall could also cause bottlenecks and slow-moving traffic across the network and deter people

from driving in the future — a more subtle loss of business over time.

There is also the issue of asset degradation. The effect of prolonged excessive heat, or more frequent torrential rain or hail, on assets and infrastructure could be to shorten their operating lives. But this is difficult to detect and quantify.

New solutions needed?

Current insurance products are geared around highly visible effects of one-time events: flooding to a property, lightning damage to a roof, a hurricane rolling through. But how will we deal with the longer term effects of climate changes? Is this simply something that businesses must endure — or is there in fact an opportunity for insurers to create new products that meet these needs and so create new income streams?

After all, there are many different kinds of businesses that would welcome such cover: power and utility companies with highly expensive and complex generating machinery, manufacturing sites, infrastructure owners and operators, supply chain and logistics businesses, property portfolio owners and managers — the list goes on.

The whole topic of insurability under climate change scenarios is an issue that needs to be urgently discussed and debated within the industry and with business. In Australia, we are already seeing a number of clients with property portfolios finding they either cannot obtain adequate insurance or are being asked for prohibitively high premiums.

While COVID-19 modeling was excluded from the analysis presented in this article the COVID-19 impacts and flow on to toll road operators is another good example of why planning and modeling for extreme scenarios should be undertaken.

No one could ask insurers to make uneconomic decisions of course. The simple fact is that, collectively, viable solutions need to be found that work both for insurers and their clients.

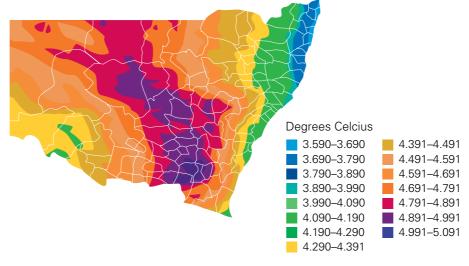




Exhibits: The three figures below demonstrate the traditional view of climate risk by geospatial location and how we may translate this approach to apply to the profit and loss (P&L) over a long-term projection.

Figure 1: Natural hazard map

Visualization of a natural hazard output such as maximum daily temperature showing colour as the severity of change. The climate metrics are modeled as drivers of the performance for assets or P&L at a geographical level.

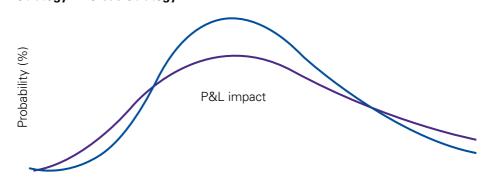


Source: KPMG Australia, March 2020

Figure 2: P&L distribution

Graphical depicion of the probabilities associated with varying P&L impacts of different strategies such as choosing one supplier over another. In this example, the graph shows that high or low P&L results are more likely for one strategy, whereas the other is likely to return a moderate P&L result.

Strategy A versus Strategy B

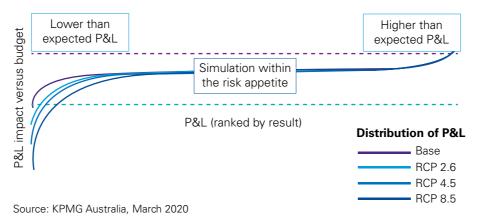


Source: KPMG Australia, March 2020

Figure 3: Simulated P&L results

The range of potential P&L results that the business may experience under different climate scenarios. The vertical axis represents the P&L result and the horizontal axis represents the ordered possibilities of results. This enables decisions makers to identify their risk thresholds with respect to climate risk.

Distribution of P&L





Ripples across financial services

As we have seen, the project KPMG Australia is undertaking and the underlying framework and models have wide-ranging implications for our toll-road operator client and, by extension, for the insurance industry itself.

But, in the same way, climate shifts have implications for the insurance sector, they also pose significant questions for other parts of the financial services

Banks need to analyse their mortgage portfolios and assess which properties they have lent against may be susceptible to climate impacts. Identifying geographical locations at risk, do those customers have the insurance needed to rebuild in the event of a catastrophic incident? Which customers, from their profiles and available data, are more likely to be financially resilient in the event of a disaster and which ones may not be able to meet their commitments?

Then they need to consider: is there anything we can do to help them? What are our responsibilities in terms of making customers aware of the risks and helping

This applies equally to commercial lending of course. Not only with lending against commercial property portfolios, but across all classes. Which business customers could be impacted by climate events, and to what extent? Banks need to build climate-related metrics into their ratings systems. This is something that the big ratings agencies themselves are working on, although this is somewhat in the early stages.

The Bank of England's publication in December 2019 of a discussion paper on stress testing banks for their resilience to climate risks — potentially starting from 2021 — only underlines the relevance of this. Banks have to get a firm handle on their exposures, quickly.

These issues are huge for pension funds, asset managers and institutional investors too. How exposed are their investments to climate risks, and how could these risks change if climate change accelerates? Do they need to rebalance their portfolios or exit certain stocks?

Systemic questions

There are systemic economic issues that arise as well. In a country such as Australia, economic activity and wealth generation is highly concentrated in a handful of major cities. If these cities are at high risk of suffering from climate change effects, what impact could that have on the national economy? Could a redistribution of some of the economic activity in the country be needed?

In conclusion...

KPMG member firms' work is helping corporates and government agencies gain better understanding of their exposure to climate risk at a granular level and test the impact of different management responses that they could take. This may lead to a rethink of their approach to how they manage this risk.

For example, it could lead to new insurance and broader financial products emerging to help corporates transfer some of the risk, in particular, if other mitigation strategies are not viable. If they choose to mitigate the risk by implementing specific strategies (e.g. raising the M2 motorway by 1 meter), this could create a need for funding and financial advice.

Climate risk is posing new questions to all players in the corporate and financial services ecosystem. It is only by undertaking detailed assessments of the data available and modeling the impacts that we will be able to arrive at new solutions for the future.

Contributors



Richard Yee KPMG Australia

E: richardyee@kpmg.com.au Richard is the Partner in Charge for General Insurance Actuarial Australia. He has over 30 years of experience across all lines of general insurance including reinsurance across corporate and consulting roles. He is driving the initiative for actuaries to diversify into non-traditional fields such as climate risk.



Bartosz Piwcewicz KPMG Australia

E: bpiwcewicz@kpmg.com.au Bartosz is a Director and the Head of Actuarial Transformation, Systems and Data. He has over 15 years of commercial experience across all aspects of actuarial work, gained in corporate and consulting roles. He brings analytical rigor, experience navigating data that is unstructured or limited, and promotes the industrialization of the analytical framework.



Joseph Hoang-Luu **KPMG** Australia

E: hoangluu@kpmg.com.au Joseph is a manager in the General Insurance Actuarial team with over 10 years' experience across UK and Australian corporate and consulting roles. His role in climate risk analysis is managing actuarial resources, designing and implementing analytical methods, and validating outcomes with other experts such as sustainability and industry experts.



New models for an ESGaware financial system

00000000

New models for an ESG-aware financial system

Driving smart-city development

Sustainable funding and financing models

Stephen C. Beatty, KPMG International

ew solutions for creating bankable smart city developments.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

00000000

Measurement and reporting

Infrastructure projects have traditionally been viewed as stable investments this is now being upended with the inclusion of technology. Innovation is rapidly picking up pace across all asset classes and raises the issue of technical obsolescence to a new level.

The impact is profound in the development of smart cities. As municipalities re-imagine their infrastructure — investors will need to understand different risk profiles and be comfortable with a new degree of uncertainty. New solutions will be needed to match investors' expectations and liability structures.

A new generation of solutions are emerging that shift infrastructure from a top-down, centralized approach, to a user-focused, decentralized model with increased agility — and potentially lower costs. The 'unpacking' of large infrastructure projects into a number of smaller, more flexible future-enabled projects is starting to become a norm.

Investing in 'future-enabled' infrastructure

The reality is that nobody truly knows what the future will hold and how cities, users, and governments will respond. Projects will need to anticipate a broad range of technological developments while allowing for flexibility of application to meet the changing demands of users.

New management frameworks are needed to account for technology risks, specifically technological evolution. Cyber risk is also very important.

The debt and equity equation

One key factor for financing and funding is correctly assessing the uncertainty and calibrating upfront investment — and changing the operations and maintenance costs for smart city projects.

Financial institutions are beginning to include sustainability and social considerations in their lending or investment criteria. For example, some are moving away from investing in extractive industries; others are pledging specifically to support clean energy initiatives.

But there remains a gap between the debt mentality of debt issuers and the equity mentality of the proponents of sustainability solutions. We need to bridge that gap and find ways of fully embedding the social or environmental dividends of an investment into the equation. These need to become the third dimension in financing feasibility assessments.

Risks, rewards and repayments

Of course, no one could ask a financial institution to make uneconomic decisions. The numbers have to add up. Getting their capital and interest back is really where their world begins and ends. The social or sustainability benefits of an investment, however, need to take on the right weighting that reflects their wider economic potential. After all, if we can create truly smart and integrated cities, they will generate productivity and wealth creation possibilities that could pay for themselves many times over: a true social dividend.

On the other side of the coin, equity investors also need to play their part. Frequently, there seems to be a focus on how clever the technology is rather than on what it actually does — and how it will pay its bills. There has to be an economic case to persuade the lender, just as the equity owner has to accept that their returns will always be subject to greater fluctuations and risk.

The bottom line is that any borrower has to be able to repay their loan — that is one thing that certainly won't change.

Smart means useful and datadriven

For equity investors or owners, another fundamental point is that what they are developing shouldn't just be smart for smart's sake. It has to deliver a benefit to the citizens of a city. Whether it drives better quality of life, economic efficiency, better health outcomes — there has to be a societal benefit. Smart solutions are fantastic if they deliver a positive difference. If not, they are irrelevant.

A new generation of solutions are emerging that **shift** infrastructure from a top-down, centralized approach, to a user-focused, decentralized model with increased agility — and potentially lower costs. "



New models for an ESGaware financial system

New models for an ESG-aware financial system

Of course, smart solutions don't have to cost vast amounts of money. It's not necessarily about creating enormous new infrastructure — it can be about how we interact with the infrastructure around us, which includes taking an outcome as opposed to an output focused mind-set. An illustration of this is the car navigation system Waze - and other applications like it — that deliver real-time journey and trip-planning information using sensing technology.

As this example underlines, much of what smart cities will be about revolves around data. The operators in a smart city will collect data, curate it and use it for their decision-making. It will be about datadriven decision-making not 'rules of thumb'.

A transformation of the risk landscape

New and emerging technologies might help lower the capital needed — and credit risk involved — but at the same time other factors could push in the other direction. Climate change has one of the greatest possible consequences, with the risk of catastrophic weather events likely to become an increasingly relevant factor in pricing. In fact, all of the risk equations we know today will change.

The technological risks, security and privacy risks, the very financing needs of tomorrow's generations — all these factors will change and mean that new approaches are needed.

We are already seeing new financial products, oftentimes enabled by technology, designed to support the sustainability agenda such as 'green' or climate-themed bonds. Although quite new as an asset class, they are growing rapidly. However, it remains early days. We need to make sure that there is a balance between the low cost/low risk of funds and the equity returns.

We can't just do what we've always done

This question of balance remains key. We need to get the lenses through which risks are viewed right so that the lowest viable cost of capital is achieved for the borrower and society at large. If we ask the two sides of the debt and equity equation to take too much of each other's risks, we'll end up with suboptimal solutions.

In short, if we do things the way we've always done them, we'll get the same answers that we always have.

Contributor



Stephen C. Beatty **KPMG International**

E: sbeatty@kpmg.ca Stephen is the Global Chairman (Non-Exec), Infrastructure and Head, Global Cities Center of Excellence, KPMG International. Having led many major infrastructure transactions, Stephen advises both public and private sector clients extensively in infrastructure privatization strategy, transportation planning, public-private partnership (PPP) policy development and project financing.



New models for an ESGaware financial system

"

Smart solutions don't have to cost vast amounts of money. It's not necessarily about creating enormous new infrastructure — it can be about how we interact with the infrastructure around us, which includes taking an outcome as opposed to an output focused mindset.



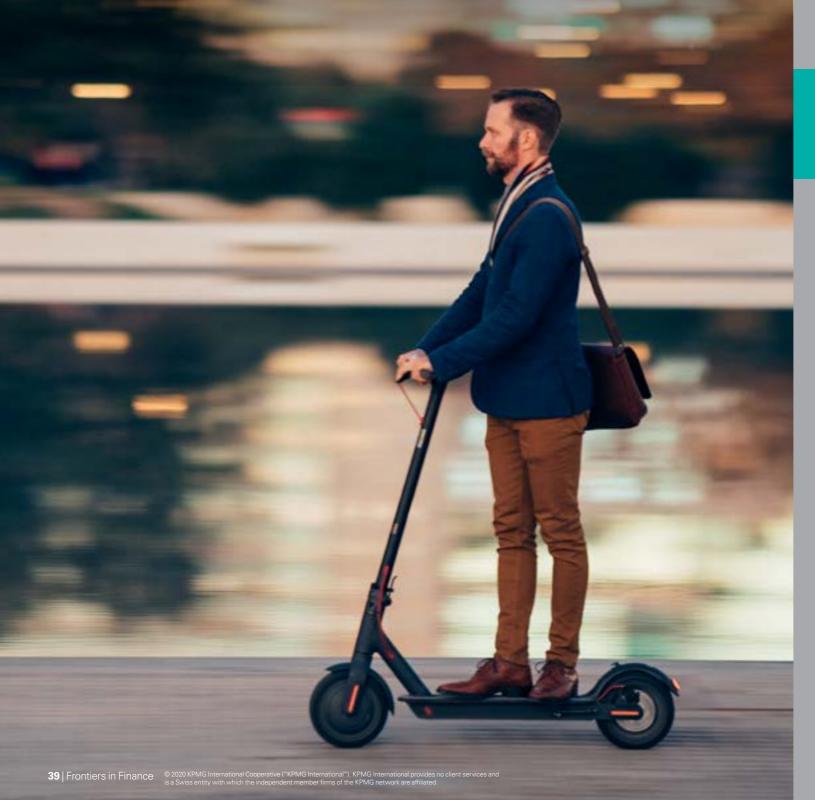
Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

00000000

Measurement and reporting



New models for an ESG-aware financial system

Promoting ESG in Asia Pacific:

Asset managers lead the way

Cherine Fok, KPMG in Singapore Pat-Nie Woo, KPMG China Neil Macdonald, KPMG China

s environmental, social and governance (ESG) thinking gets embedded in business strategies and cultures, the asset management industry will undergo profound changes in how investments are decided, and how portfolios are managed, especially in the light of how portfolios have performed during COVID-19.



Cover story: Goldman

New models for an ESGaware financial system

The past few years have seen the global consensus emerge — that not only is climate change the biggest risk mankind has ever faced but also that everyone has a role to play in solving the problems. Climate-change-related environmental threats comprise the top five long-term global risks in the World Economic Forum's (WEF) 2020 Global Risk Report.1 The WEF has called on policy makers and business to work together to develop sustainable, integrated solutions.

To mitigate climate change within the Asia Pacific region, the United Nations estimates that US\$1.5 trillion² is needed annually. Governments in the region cannot afford to make these investments alone. Private capital is needed to support the financing of lower carbon solutions and underpin sustainable economic growth. The asset management industry is key to promoting this transition.

And as ESG thinking becomes more mainstream and the impact on portfolios of COVID-19 becomes clearer, the asset management industry itself will undergo profound changes — from how securities are selected through, how portfolios are managed to how asset allocation decisions are made.

Asia Pacific governments put priority on ESG and growth

Some governments in the region are taking the lead in promoting ESG as part of their agendas for economic growth, with Hong Kong (SAR) China, and Singapore chief among them.

Hong Kong (SAR), China is seeking to become a regional hub for sustainable banking and green finance, with 2019 seeing the Hong Kong Monetary Authority (HKMA) introduce several measures in these areas. Hong Kong's stock exchange regulator (HKEX)3 has also contributed to this movement by introducing ESG-focused listing requirements, enhancing corporate governance and transparency, and updating its reporting guidelines.

These initiatives are expected to grow in scope in Hong Kong (SAR) China and the Asia Pacific region more broadly if the Chinese government puts a priority on climate change in its 14th 5-year plan, to be announced this year. A signal that Beijing is putting sustainability at the forefront of corporate policy could shift vast sums of capital toward ESGmanaged assets across the globe.

Singapore is also placing its bets on sustainability. In August 2019, for example, the country's prime minister highlighted ESG's importance to the nation's economic progress in his 2019 Rally Day speech.⁴ In November 2019, the Monetary Authority of Singapore laid out plans to invest US\$2 billion in developing the country as a green finance hub and promote sustainable financing in the financial sector.5

Like Hong Kong (SAR) China, Singapore's stock exchange has introduced sustainability reporting guidelines for listed companies, and sustainability is a key pillar supporting Singapore's 2020 budget initiatives. This budget puts priority on spreading ESG principles and practices across all economic sectors. It sets broad strategies for transforming industry, the economy and society, and lays out ambitious plans for reducing harmful emissions, adopting low-carbon technologies and effective international collaboration.

Temasek, the Singapore-based global investment company, has explicitly committed to achieving carbon neutrality, sending a strong message on this direction of travel to corporations and the financial markets. In 2019, Temasek set up the ABC World Asia Fund to serve as a private equity fund focused on investments in the region that generate positive social or environmental impact as well as profit.

Some governments in the region are taking the lead in **promoting**

their agendas for economic growth, with Hong Kong (SAR) China and Singapore chief

among them.

ESG as part of



Cover story: Goldman

New models for an ESGaware financial system

¹ https://www.weforum.org/press/2020/01/burning-planet-climate-fires-and-political-flame-wars-rage

² https://www.eria.org/news-and-views/unescap-proposes-up-to-15-trillion-investment-per-year-in-asia-pacific-toachieve-sdg-2030/

³ https://www.hkexgroup.com/csr/index.htm

⁴ https://www.pmo.gov.sg/Newsroom/National-Day-Rally-2019

⁵ https://www.mas.gov.sg/news/media-releases/2019/new-us\$2-billion-investments-programme-to-supportgrowth-of-green-finance-in-singapore

Japan's Government Pension Investment Fund (GPIF), the world's largest pension fund, has similarly put ESG at the heart of its investment strategy, for example, by investing in sustainable indexes, promoting innovative investment practices and improving the ESG standards it applies to its passive portfolios.

Other countries and jurisdictions in step with this trend include Indonesia and Taiwan, whose governments are also promoting green finance products and practices, and India, which is seeing more of a push from large corporations, for example, to nurture a market for green bonds.

Initiatives like these across the Asia Pacific region will channel significant capital flows toward a lower-carbon economy, and to those industries and companies that enable and embrace it.

Understanding ESG — toward a common language

Asset managers and companies are now accelerating how they integrate ESG into their everyday activities; with this comes significant activity and debate over common definitions and metrics for quantifying ESG costs and benefits. Different rating agencies use different criteria to score companies' ESG performance. This can be frustrating for companies who find they score well with one agency but less so with others. The differences are equally confusing for asset managers and other investors seeking reliable information on investees and targets.

For Asia Pacific countries engaged in the green finance movement, the European Union's taxonomy for sustainable business activities may provide common, comparable criteria. Introduced in 2019, the taxonomy sets detailed screening criteria for activities across eight sectors that substantially contribute to climate change mitigation. As the Asia Pacific region attracts investment from most major economies, such a common language will become increasingly important.

Large asset managers operating globally face additional challenges in developing ESG risk monitoring and reporting frameworks. These frameworks need to consider risks specific to each region; this makes it difficult to identify consistent benchmarks for ESG performance across not only regions but also sectors and between companies whose operations may cross sector definitions. As more of this data becomes digitized and standardized, its quality and the access asset managers have to it will vastly improve. One would then hope that investor capital becomes more accurately deployed to those firms whose activities are driving more sustainable outcomes.

From passive ownership to active stewardship

Asset managers may choose to address ESG portfolio risk with simple exclusion policies that avoid entire investments in certain activities and assets. Moving beyond this somewhat blunt approach, and in moving to integrate ESG goals more broadly in their portfolios, many asset managers are investing in their engagement/stewardship functions. Stewardship-driven, so-called 'inclusion policies' are fast gaining interest from institutional investors: rather than investing elsewhere and leaving firms' ESG shortcomings in place, inclusive policies set realistic metrics for activities and processes that aim to achieve positive ESG change. Asset managers, through their stewardship teams, then work with investee companies to improve their ESG ratings and sustainability outcomes.



As asset managers and companies integrate ESG, there has been significant activity and debate over common definitions and metrics for quantifying ESG costs and benefits. ""



New models for an ESGaware financial system

New models for an ESG-aware financial system

In fact, some large funds, such as Dutch pension plan ABP, actively look for companies that have room to improve. They then look to generate excess returns by helping these companies do better on ESG measures. For managers running mostly index portfolios that may be used to being somewhat hands-off in terms of their engagement with investee companies, this active approach to stewardship represents a significant change as they acquire and deploy new ESG expertise, skills and resources for portfolio management.

In this current environment, investee companies cannot approach ESG monitoring and reporting as a boxticking exercise. Companies need to deliver detailed information about their ESG strategy and performance to financiers, investors and asset managers, and ensure they can explain the facts underlying their ESG performance. Increasingly knowledgeable stakeholders can already see when a company's disclosures are only skin deep, and a lack of credibility on ESG matters will deter investors, harm corporate reputations and destroy shareholder value.

Leading corporations are centralizing their ESG data collection, communication and outreach within a single function. These teams have the knowledge to answer tough new questions about, for example, how they manage risk, whether they are sufficiently diversified, how their supply chains are managed, and how well senior management engages with governments and industry on policy development. They can also act as an expert resource to the company's lines of business.

With an increased focus on sustainable finance, markets will reward companies with strong ESG records backed by high-quality disclosures. Against this backdrop, asset managers will be the ones where the board and senior leadership of the firm lead a cultural shift to embed ESG not only in the firm's core investment process and across the assets they manage, but also in how they manage the asset management business as a corporate enterprise.

Contributors



Cherine Fok KPMG in Singapore

E: cherinefok@kpma.com.sa

Cherine is a Director, Sustainability Services with KPMG in Singapore and has more than 13 years of experience in numerous accounting and advisory projects. She specializes in sustainable development in particular, sustainable finance, sustainability and decarbonization strategies, implementation, monitoring and reporting of social and environmental initiatives, sustainability reporting and sustainability assurance.



KPMG China

E: pat.woo@kpmg.com

Pat heads up Sustainable Finance in Hong Kong (SAR) China and is a core member of the KPMG China Steering Committee on Climate Change & Sustainability (CC&S). He has been active for over 13 years in the field of sustainable development and now serves on the Hong Kong Financial Services Development Council to drive the development of green and responsible finance in the region. He is also part of the United Nations Economic and Social Commission for Asia Pacific (UNESCAP) on their Sustainable Business Network Task Force on Banking and Finance.



Neil Macdonald KPMG China

E: neil.macdonald@kpmg.com

Neil Macdonald leads the Wealth and Asset Management Centre of Excellence at KPMG China. He was previously a Managing Director in the UK firm's asset management practice. Neil has over 15 years of asset management industry experience working in various senior front office roles for a number of global investment firms, including BlackRock and JP Morgan Asset Management. He has also held senior positions in the banking sector leading change programs spanning public policy, HR and technology.



New models for an ESGaware financial system



New models for an ESG-aware financial system From protection to prevention: Insurers respond to risks of natural disasters Edward J. Chanda, KPMG in the US David Kells, KPMG Australia reater access to real-time environmental data, better predicting and pricing for extreme weather risks needs to be part of the solution.

44 | Frontiers in Finance



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESGaware financial system

00000000

Measurement and reporting

Currently countries throughout the world are coping with the health impacts of COVID-19, along with the wide-ranging societal and economic impact.

However, with the current focus rightfully on addressing COVID-19, it remains important not to lose sight of the long-term challenge of climate change. In recent years we have experienced a marked increase in the frequency and severity of natural disasters, including fires, floods, hurricanes and typhoons. These events have become increasingly damaging, in part due to a greater concentration of people and property in and near disaster-prone areas. But more critically, climate change is creating conditions where natural disasters tend to be more intense, widespread and destructive.

The result is that individuals, businesses and governments are faced with the reality that dealing with the effects of climate change can't wait for some time in the future — better solutions for coping with the new reality are needed today. Insurance companies in particular are facing pressure to rethink traditional models that are often not measuring up in this new environment.

No recent natural disaster has captured more global attention than the devastating bushfires in Australia. Dozens of people and an estimated one billion animals died in the horrific fires.1 Australia is no stranger to fires in the dry season, but the intensity and magnitude of the 2019 fires was more severe than any experienced before.

The scale alone of the fires was unprecedented. Beginning off the back of severe drought conditions in June of 2019, the fires numbered well over 100 by November, burning an area of more than 100,000 square kilometers, the size of South Korea.² Even heavy rains at the start of 2020 failed to extinguish all of the blazes, and as of February, 50 or more continued to burn in New South Wales.3

The Australian fires came a year after northern California experienced its own once-in-a-lifetime natural disaster, 2018's Camp Fire, reported to be the most destructive fire in the state's history. In fact, November 2018 was the most destructive wildfire month in California's history, with insurance claims exceeding US\$12 billion.4

The scale and intensity of the Australia and California fires were an in-your-face demonstration of the impact of climate change. Due to climate change, wildfires are becoming larger, more intense, and faster moving and more difficult to control. Where the dry season and related bushfires have historically lasted a period of weeks in Australia, the intense fires of the past year were unprecedented, lasting months as they spread up and down Australia's east coast.

Amazingly, as destructive as the bush fires in Australia were to the natural environment and its wildlife population, they were actually less damaging in terms of insured losses than other natural disasters. In recent years the greatest damage has come from hail storms, floods and cyclones. In fact, in terms of cost, the bushfires, with current losses at AUD1.65 billion will fall well short of Australia's costliest event for the past 20 years.⁵ The bushfires were strongest in less populated areas, while more populated major cities have been

hammered in the past 3 years with severe destructive events is upending many of the of insurance in addressing natural disasters and causing the industry and governments

The increased damage resulting from disasters has enlarged tension in the system, as insurers work to properly price risk, while political pressure ramps up with allegations of price gouging and demands to reduce premiums.

In many affected areas, there are increasing numbers of people who don't have insurance or adequate insurance to address their loss or damage. Already, there are parts of Australia where the cost of insurance is so high that many people can't afford it.6 In California, a moratorium was instituted preventing the canceling of policies in areas in and around the wildfire damage.7

In Australia, major insurers maintain a natural hazard allowance to ensure they have the resources to respond to natural disasters. But even these reserves are being underestimated in

Australia's costliest disasters of past two decades

2007			\$2.19	OLS, NSW Floods	盒
2017		\$1	.78bn	Cyclone Debbie	ş
2009		\$1.	.76bn	Black Saturday Fires	*
2010		\$1.63b	on	Melbourne Storm	<i>ج</i> ب
2011		\$1.53bn		Brisbane Flooding	
2014		\$1.53bn		Brisbane Hailstorm ($\langle \cdot \rangle$
2011		\$1.48bn		Cyclone Yasi	*
2018		\$1.36bn		NSW Hailstorm o	$\langle \cdot \rangle$
2010		\$1.35bn		Perth Storm of	رب.
2020	\$1bn			NSW,VIC,SA,QLD Fires*	N
\$bn	0.5	1 1	.5 2	2 *still act	tive

Source: Moodys

hail storms, floods and cyclones. For the insurance industry, the impact of climate change with more frequent, intense and conventional assumptions about the role to rethink the ways that persons and property are protected.

New models for an ESGaware financial system

¹ https://www.bbc.com/news/science-environment-51590080

³ https://www.bbc.com/news/world-australia-51409551

⁴ http://www.insurance.ca.gov/0400-news/0100-press-releases/2019/release041-19.cfm

the face of climate change. In 2019, at least two of Australia's leading insurers used up their full-year allowance in just 6 months. And this isn't the first time the natural hazard allowance has been underestimated. Over the past 10 years, it has become an increasingly rare case where insurers' predictions of their natural hazard allowance have proven to be adequate.8 While comprehensive reinsurance arrangements have absorbed much of those losses, the price and availability of reinsurance coverage will eventually come under pressure in a world of increased frequency and severity of natural disasters.

It is a strong reflection that the increasing size and frequency of natural disasters; from hailstorms, cyclones, flooding, to the bushfires that we've just seen implies that the models for predicting these events are obsolete or at a minimum in need of a major recalibration.

What does this mean for insurers and their policy holders?

Greater access to real-time environmental data, better predicting and pricing for extreme weather risks is part of the solution. There is also a greater burden on individuals and businesses who want to locate in areas more exposed to climate-based events, and the municipalities who encourage the development. Insurers would argue that for those who choose to live in a place that is prone to natural disasters, an appropriate rate has to be charged to provide the protection that is needed.

In the US, insurers learned lessons about the unpredictability of damage from natural disasters going back to the early 20th century. Damage from flooding along the Mississippi River in the 1920's overwhelmed private flood insurance and caused the collapse of a number of insurers. Many insurers stopped writing flood policies as a result, leading to a range of government efforts to mitigate flooding with dams and levies and establishment of programs such as the National Flood Insurance Program (NFIP) to help protect homes and businesses

in flood-prone areas. Extensive flood mapping was done to help manage risks, but the historical data used became outdated with increasing development in areas susceptible to floods and hurricanes.9

Fast forward to today, where mapping is used to identify particularly fire prone areas. As with the flood maps, insurance companies became very disciplined about writing policies in the 'green' areas and not in the 'red' areas but as with the flood mapping, fire maps have been made obsolete with the scale and intensity of fires in the past 2 years. Combinations of historically dry conditions and nearhurricane force winds, caused intensity, speed and spread of fires beyond the old predictive models.

What more can be done?

The insurance industry and policy makers are increasingly recognizing that while historically the insurance model has been built around protecting policy holders from loss, going forward the new business model will have to rely much more on preventing the loss in the first place.

As the California fires spread, insurance companies reacted quickly to help policy holders, even working to help prevent further spread of the fires. They sent teams to join in local efforts to cut forestation back. They sprayed flame retardant foam around policyholder homes.¹⁰ And as losses occurred, they took aerial photos of damaged property so that they could more quickly pay out a portion of insurance proceeds to people who needed them.

The question is, could more be done to better prepare in advance? Better monitoring using drones and advanced sensors are already playing a role. Advanced technologies like artificial intelligence will undoubtedly be used to better predict where and when events could occur. There are also more practical steps that can be taken, from helping ensure policyholders have the right roof shingle and building design for the exposure that they have, to making sure brush is cut back from structures.

Insurance companies in particular are facing pressure to rethink traditional models that are often not measuring up in this new environment.



New models for an ESGaware financial system

⁵ https://www.insurancebusinessmag.com/au/news/breaking-news/can-the-insurance-industry-sustain-bushfire-losses-211716.aspx

⁶ https://www.news.com.au/finance/money/costs/experts-warn-of-red-zone-insurance-risk-as-severe-weather-spreads/news-story/7c53467ad08a523806b84208a1b664ef

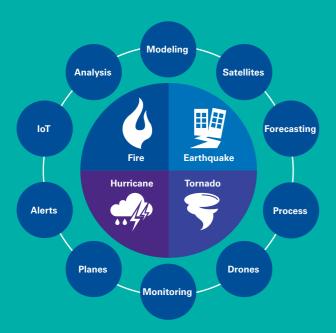
⁷ https://www.nytimes.com/2019/12/05/climate/california-fire-insurance-climate.html

⁸ https://www.afr.com/companies/financial-services/iag-slashes-guidance-on-exceptionally-harsh-weather-20200212-p53zyi

⁹ https://www.pewtrusts.org/en/research-and-analysis/articles/2016/06/07/how-20th-century-events-shaped-the-national-flood-insurance-program

¹⁰ https://www.insurancejournal.com/news/west/2018/11/13/507288.htm

Extreme weather: Prevention and protection



There is also a massive public policy piece that needs to be addressed to get alignment on preventative measures. Building codes and environmental matters are two significant areas that require attention. There needs to be the right balance between environmental regulation to preserve trees and green space but also allow for a certain amount of hazard reduction to manage the risk of wild fires. A coordinated, targeted approach to forest management is essential to help manage and reduce fire risks. Building codes also need to be reviewed. More stringent building codes unquestionably bolster resistance to natural hazards. They also increase the from government and industry is needed to support this transition while maintaining affordable insurance coverage.

For insurers it is a challenging dynamic — adapting to a more uncertain and rapidly changing environment, pricing products properly, while avoiding losses and remaining capitally sound. It will require shifting the traditional focus on protection more to prevention. This means the insurance sector working closely together with government, communities and policyholders to better prevent, as well as protect against, damage from natural disasters.

Contributors



Edward J. Chanda KPMG in the US

E: echanda@kpma.com Ed is a Partner in KPMG's Insurance Practice. He serves as the National Sector Leader for Insurance, leading the firm's efforts regarding client experience and resources for the insurance practice. He has 30 years of experience serving the insurance industry, both property casualty and life, and has been a partner since 2001.



David Kells KPMG Australia

E: dkells@kpmg.com.au As Insurance Sector Leader, David is passionate about working with his clients and understanding their needs. David has more than 28 years' experience in financial services. delivering a range of audit and advisory services focused in the insurance and wealth management sectors. This has included external and internal audit and advising clients on regulatory change, risk management, finance transformation, corporate governance and accounting.



New models for an ESGaware financial system

Measurement and reporting

Towards consistent and comparable ESGreporting

Tom Brown, KPMG in the UK Adrian King, KPMG Australia Jiska Klein, KPMG in the Netherlands

or financial institutions, it is important to take account of environment, social and governance (ESG) factors when assessing credit and market risk. But this multiplicity means that it can be challenging to take an objective view because the different frameworks are often not directly comparable.



Cover story: Goldman



Measurement and reporting

Prior to the global spread of COVID-19, sustainability, climate change and responsibility were at the top of the agenda for executives around the world, as evidenced by this year's annual meeting of the World Economic Forum in Davos, Switzerland (January 2020). During the week-long event these themes dominated much of the agenda and sparked wide-ranging debate.

And it was not just all theory. There was a powerful consensus that the time has come for concerted action. One manifestation of this was the publication of a new set of proposals from the WEF's International Business Council (IBC) for common metrics and reporting disclosures around ESG factors.1

A significant number of frameworks and voluntary standards already exist for ESG reporting, even running into the hundreds. But in fact, this is part of the problem. There are so many that for some preparers it can be hard to know which one to follow.

For financial institutions, meanwhile, it is becoming increasingly important to take account of ESG factors when assessing credit and market risk. But this multiplicity means that it can be challenging to take an objective view because the different frameworks are often not directly comparable.

A common standard

This is why the proposals put forward by the IBC are potentially so significant. Developed in conjunction with the Big Four accounting firms, the proposals aim to create a core set of commonly adopted metrics that will bring consistency, comparability and transparency to reporting of non-financial risks and ESG factors.

The IBC consists of around 120 members, including many of the world's largest businesses (and a plethora of major financial services organizations). So these are proposals developed by business, for business.

They are also significant because one of their core aims is to bring about the 'mainstreaming' of ESG reporting by bringing key ESG disclosures into annual reports themselves, rather than being confined to separate, standalone reporting documents.

Not 'reinventing the wheel'

Another critically important feature about these proposals is that they are absolutely not about ripping out what already exists and starting again. On the contrary, their aim is to build on the good work already in place and bring it all together. As the WEF put it in their announcement during Davos:

"The metrics are drawn, wherever possible, from existing standards and disclosures such as Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Taskforce on Climate-related Disclosures (TCFD), Climate Disclosure Standards Board (CDSB) and others. Instead of reinventing the wheel by creating a new standard, they aim to amplify and elevate the rigorous work that has already been done by these initiatives, bringing their most material aspects into mainstream reports on a consistent basis."

4 pillars, 22 metrics

So what is actually in the proposals? There are 22 core metrics that are spread across four pillars — Principles of Governance, Planet, People and Prosperity. These are aligned with the United Nations Strategic Development Goals (SDGs) and with the principal ESG domains.

Principles of Governance is the 'G' of ESG, covering a company's commitment to ethics and societal benefit: Planet is the 'E', looking at themes of climate sustainability and environmental responsibility; People is the 'S', focusing on the roles human and social capital play in business; Prosperity meanwhile brings a financial lens, but one that is concerned with business contributions to equitable, innovative growth — economic prosperity on a wider basis than simply a company's own profit generation, including community investment and tax.

It goes without saying that, in the wake of COVID-19, these attributes of social responsibility, commitment to communities, and contributions to economic growth, will become more important than ever before. Consequently, consistent and transparent reporting around them will become even more crucial too.

A significant number of frameworks and voluntary standards already exist for **ESG** reporting, even running into the hundreds. But in fact, this is part of the problem ,,,





¹ Toward Common Metrics and Consistent Reporting of Sustainable Value Creation, World Economic Forum, January 2020

Different degrees of challenge

To report against the core metrics should not, in fact, be a challenge for 'mature' businesses who have an established ESG reporting program. For example, we ran an analysis for one client of KPMG and found that they already report against 21 of the 22 core metrics.

However, for those businesses that do not report on ESG factors, the nature of the task will be guite different: significant work will be required to gather the necessary information. The proposals are voluntary so no business will be compelled (at this stage at least) to report against them — but if, as expected, they gain traction among investors and stakeholders, then pressure will inevitably grow for organizations to adopt them.

The main focus of this pressure will of course be on publicly-listed companies, but at the same time could spread into the private arena. Private businesses need financing and equity as much as public entities — and if financial institutions continue the trend of factoring ESG issues into their lending and investment decisions, then increasing numbers of private companies may adopt the reporting metrics too.

It is also to be hoped that the reporting framework will be adopted not only by businesses (and promoted by regulators) in mature markets in the Americas, Europe and ASPAC but in many other countries too. There could be a real investability dividend for companies in less developed markets that adopt the metrics, increasing their attractiveness to financers. By taking the lead locally, they could also encourage others to follow suit. Embracing the framework is an opportunity for business communities in less developed jurisdictions to send out a strong message to stakeholders and investors internationally about their commitment to the ESG agenda.

Expanded metrics to aim for

The core metrics are very much positioned as the minimum requirements. In addition, there are a further 30 expanded metrics and disclosures that are more challenging to report against. These, the IBC says, can help companies "progress towards greater depth, breadth

and precision of reporting on the factors influencing long-term value". They provide a "pathway for continuous improvement" that companies can aspire towards.

To take one example that illustrates this, in the People pillar there is a core metric of 'skills for the future' in which companies are asked to quantify the average hours of training per person that the organization's employees have undertaken, together with the average training and development expenditure per employee.

The expanded metric against this asks for information that is much harder to calculate: the monetized impacts of training. That is to say, the estimated future uplift in lifetime earnings as a result of training intervention. This should be calculated using the income-based approach to human capital valuation. Clearly, this is of a different order of difficulty than quantifying how much training has been delivered and how much it cost.

Fast track to implementation

In keeping with the general recognition that the world needs to act fast on climate and other issues, the proposals are set to be introduced on an accelerated timeline — the expectation is that many companies will incorporate reporting against the metrics in their annual reports for financial years ending 31 December 2020 and others will follow. In other words, we should see the first reporting in annual reports early next year.

To achieve this, there will be a consultation period in the next months. The consultation period on the proposals closes at the end of May, and any necessary revisions or updates will then be made to the metrics, before they are 'stress-tested' with a selection of issuers and investors over the summer period. A key consideration, of course, is that investors should find the reporting valuable and informative — so their feedback will be critically important. The hope is to find a format similar to TCFD reporting where key summary information can be presented in one table — easy to digest and examine, with more detailed reporting sitting behind it.

There could be a real investability dividend for companies in less developed markets that adopt the metrics, increasing their attractiveness to financers.





Measurement and reporting

Financial services leading by example?

For financial services businesses, we hope the proposals will be truly welcome. The new metrics will fill the information gaps that sometimes exist in ESG reporting and provide direct comparability between businesses. This will enable financial organizations to make better-informed lending, investing and underwriting decisions.

At the same time, it will be important that the financial sector leads the way in adoption of the metrics in its own reporting. If financial institutions are to expect clients to report against them, they will need to have their own houses in order too.

At KPMG, we are proud to be involved in the development of this new 'common language' for ESG reporting and look forward to advising clients on meeting the requirements.



Contributors



Tom Brown KPMG in the UK

E: tom.brown@kpmg.co.uk
Tom is a Chartered Accountant and
has been a Partner in KPMG's financial
services practice in London since 1999,
having joined the firm in 1987. He
was the KPMG Global and UK Head
of Asset Management for 10 years
until 2019. He has been the client lead
partner for a number of significant
investment managers, hedge funds and
pension funds. Tom has led advisory
assignments including operational and
process reviews as well as internal
audits, transactions and listings.



Adrian King KPMG Australia

E: avking@kpmg.com.au
Adrian is committed to helping
businesses improve their social and
environmental performance. He believes
this is key to building a more resilient
global economy. As well as leading
KPMG's global Sustainability Reporting
and Assurance Services, Adrian is also
the Partner in Charge of the Sustainability
Services practice at KPMG Australia. He
has more than 25 years' experience of
working with global public and private
companies to provide financial and
non-financial advisory, reporting and
assurance services.



Jiska Klein KPMG in the Netherlands

E: Klein.jiska@kpmg.nl
Jiska has specialized in ESG strategy
development, reporting and impact
measurement to support companies
in prioritizing long-term value creation
in their strategy and decision-making
processes. Jiska is a member of the
Global Sustainability Services practice
specializing in TCFD, True Value and
Assurance. She has an academic
background in international and
development economics in combination
with extracurricular courses on
environmental and energy sciences.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESG aware financial system

Measurement and reporting



Measurement and reporting

Creating an impact management framework

Leonie Jesse, KPMG in the Netherlands **John Cho**, KPMG in Canada

s the importance of societal and environmental factors continues to grow, asset managers need to find ways to measure and report on the impact of their investment portfolios to their clients and wider stakeholders.



Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system

Measurement and reporting



Measuring the societal impacts of investment funds

As the importance of social and environmental factors in investment grows, asset managers are looking for new ways to measure and report on the impact of their investment funds to their clients and wider stakeholders.

Asset managers handle billions of dollars in investments on behalf of institutional investors, pension funds and individual savers. The financial performance of these investments is, and always will be, critically important — but at the same time, a growing consciousness of social and environmental factors is shifting the game. Institutional investors need insight into the 'non-financial' impacts of their investments for two main reasons: they need to be able to assess the robustness of their funds to a world experiencing such things as climate change, degradation of nature and material resource scarcity; and they increasingly need to respond to questions about the real-world impact of their investments from stakeholders.

Amid growing public interest, the emergence of social and environmental investment risks has not gone unnoticed by regulators. Asset managers and financial services businesses across the spectrum have to take account of a growing body of ESG integration and reporting requirements through measures such as the Taskforce on Climate-related Disclosures (TCFD), IORP II (pension regulation), the EU taxonomy of sustainable economic activities, and the Network for Greening the Financial System led by central banks and supervisors.

A growing set of risks

Although minds are rightly concentrating on controlling COVID-19 at present, climate change and climate-related risks will become top of mind again when the outbreak is over — the growing prevalence of extreme weather events around the world make the issue visible and real for many people, and this will continue. There has been a dramatic galvanisation among the global community to take more action, faster, to mitigate against a potential worsening of climate change.

But it is not only about climate — other megatrends are vitally important too and influence decision making within the financial sector. Issues such as human rights, biodiversity loss and plastic waste — all of these translate into both challenges and opportunities for investors to evaluate.

The challenge for asset managers

Due to COVID-19, we have guickly been confronted worldwide with our own vulnerability. Furthermore we must realize more than ever that we have greatly exceeded the earth's carrying capacity on a global scale. This emphasizes the importance to promote sustainability and to ensure that people, the environment and the economy are rebalanced in a sustainable world. The financial sector plays a key role in this. Measuring the impact of investment decisions is essential in order to properly interpret the role of the sector in the transition to a sustainable economy.

In response, the financial sector is stepping out of its historically passive role and embracing the concepts of sustainable finance in a more active and comprehensive way. ESG policies and commitments are becoming increasingly embedded into investment approaches and decision making, along with improved sustainable investment reporting.

For asset managers, it is a real challenge to measure and quantify the environmental and social impacts of their investments at a fund level. It is one thing to assess the impact of a specific stock, but when there are perhaps 200 stocks comprising a fund, creating an accurate picture is complex. Across many criteria there is a lack of relevant data and it remains extremely difficult to make judgements on a comparable basis between different investments.

The CISL solution

Fortunately a solution is at hand. The University of Cambridge Institute for Sustainability Leadership (CISL), in conjunction with its Investment Leaders Group (ILG), has developed a framework — the Investment Impact Framework — for assessing portfolios of listed equities or corporate bonds.



There has been a dramatic galvanization among the global community to take more action, faster, to mitigate against a potential worsening of climate change.





Measurement and reporting

The framework is based on the United Nations 17 Sustainable Development Goals (SDGs), grouping them into six themes, three environmental (climate stability, healthy ecosystems, resource security) and three social (basic needs, wellbeing, and decent work).

Assessing relative fund performance

Based on data that are widely available from recognized data providers, the framework assesses the absolute performance of a fund as well as its relative performance in comparison to a benchmark. It does this across all six themes and provides a color-coded score for each one, enabling the asset manager or owner to understand and assess the performance of a fund and compare it to others. It is suitable for any fund, not just those claiming to be 'ESG' or green.

To briefly summarize the six key themes in the CISL framework, they look at the following criteria:

- 1. Climate stability: the global effort to curb the earth's temperature rise, and an asset's alignment with the Paris consensus to hold temperature rises 'well below' 2°C.
- 2. Healthy ecosystems: the maintenance of ecologically sound landscapes and seas for people and nature.
- **3. Resource security:** the preservation of natural resources through efficient and circular use.
- **4. Basic needs:** the provision of critical services to all in society, including low-income people to help them escape poverty.
- 5. Wellbeing: enhanced health, education, justice, and equality of opportunity for all.
- **6. Decent work:** the creation of secure, socially-inclusive jobs and working conditions for all.

Figure 1 shows an example of a report for a portfolio.

Combining information on the six impact themes



Source: In search of impact per US\$1m invested, The Cambridge Impact Framework, University of Cambridge Institute for Sustainable Leadership. http://www.cisl.cam.ac.uk/climatewise

A significant step — with more to do

The framework recognizes that this is only the beginning. There is a gap today between what can be measured and what we would ideally like to measure if improved data were available. For example, the ideal measure of climate stability might be the alignment of an asset to future warming scenarios based on consumption of 'global carbon budget'. But at present, the measurement is made based simply on total greenhouse gas (GHG) emissions. An ideal measure of decent work would take into account numbers of employees, working conditions, pay and contract types across the whole value chain, but in reality the only data that

exists today at scale is number of full time equivalent (FTE) workers.

That said the framework is a significant step in the right direction — an early opportunity to get started with impact measurement on what will be a continuing journey to develop the framework as more granular and robust data becomes available.

The framework has been well received by many significant fund managers, including the organizations making up the Investment Leaders Group, the a global network of pension funds, insurers and asset managers committed to advancing the practice of responsible investment in collaboration with CISL.





¹ https://www.cisl.cam.ac.uk/business-action/sustainable-finance/investment-leaders-group

Measurement and reporting

Moving the framework online

At present the framework in its current form requires a fairly significant investment of time and effort by asset managers to generate results as it requires entering portfolio information into spreadsheets.

At KPMG, we quickly saw the high value and potential of the framework and reached out to CISL with an offer to help move the framework online. Based on our extensive benchmarking research, we believe it to be highly suitable for assessing investments at a fund level.

Given this, we are delighted to have begun working with CISL to help develop an online tool through which the framework can be applied. Our collaboration with CISL is being led by Dutch sustainable finance professionals from the KPMG Climate Change and Sustainability services network, with input from KPMG colleagues globally.

The initiative will mean that, in the near future, asset managers will be able to access an online portal, enter their

investment fund code, and then pull off an instant report showing them the status of their investments. It will be available for fund managers globally to access.

The ultimate goal for the online tool is to make it much easier and quicker for asset managers to use the CISL framework, which should help increase the number of institutions adopting it. That way, the framework could become an important milestone towards a common standard across the industry.

With so much resting on asset managers being able to report on ESG performance, our hope is that the CISL framework, powered by the online tool we are developing, will empower stakeholders through the investment value chain to channel capital into more sustainable

In light of the COVID-19 outbreak. measuring the impact of investment decisions has become even more essential in order to properly interpret the role of the sector in the transition to a sustainable economy.

Investment Leaders Group

The Investment Leaders Group (ILG) is a global network of pension funds, insurers and asset managers committed to advancing the practice of responsible investment. It is a voluntary initiative, driven by its members, facilitated by the Cambridge Institute for Sustainability Leadership (CISL), and supported by academics from the University of Cambridge.

The ILG's vision is an investment chain in which economic, social and environmental sustainability are delivered as an outcome of the investment process as investors go about generating robust, long-term returns.

Contributors



Leonie Jesse **KPMG** in the Netherlands

E: jesse.leonie@kpmg.nl Leonie is an Associate Director in the sustainable finance practice. She has a background in banking, asset management and sustainability and experience as a director/manager, board member and entrepreneur. Within the sustainability practice she focuses on the financial sector. Her areas of experience range from responsible investment, sustainable finance and impact investing, to impact measurement, True Value and education.



KPMG in Canada

E: johncho@kpmq.ca John is the Global Institutional Investors Group Lead and the Head of Deal Advisory for Canada. He advises the pension plan and private equity community on domestic and cross-border transactions. John's focus industries also include retail, software, media, manufacturing, gaming, healthcare and seniors' housing. His experience also includes the mergers and acquisitions group of a corporate finance dealer, where he advised companies on acquisition and divestiture mandates.









Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system

Measurement and reporting



Political and regulatory landscape

Now, more than ever, central banks are focused on risk. And, as COVID-19 evolves, they are increasingly recognizing that the rebuilding phase offers a unique opportunity to encourage action on the climate change agenda. Here's what bank executives should know.

While the acute phase of COVID-19 may have drawn central banks' attention away from the environmental, social and governance (ESG) agenda as they dealt with the immediate economic challenges (see page 60), all signs suggest that focus is quickly returning.

What the central banks are starting to recognize is that the COVID-19 health and economic situation has created a unique opportunity to deal with a different, much slower-moving, yet equally disruptive systemic financial risk caused by climate change. Central bank leaders have been raising the alarm for years.

"As financial policymakers and prudential supervisors we cannot ignore the obvious physical risks before our eyes," warned Mark Carney, former Governor of the Bank of England and François Villeroy de Galhau, Governor of the Banque de France, last year. "Climate change is a global problem, which requires global solutions, in which the whole financial sector has a central role to play1."

Those familiar with Mr. Carney would not have been surprised. As the head of the Bank of England, he had been sounding warnings about the systemic risks of climate change for years. The stark message to the financial sector came as part of a report from the Network for Greening the Financial System (NGFS) outlining steps that central banks should be taking to help combat climate change².

Now, as public and private funds start to flow towards rebuilding the economy and restarting industries, the pressure is rising. Investment capital is rapidly moving towards ESG-linked and impact investment vehicles. And, at the same time, society's expectations and common values are shifting; in the wake of the COVID-19 situation, people care

more about ESG and climate change than ever before. The reputational risks of inaction are growing.

Not surprisingly, central banks now recognize that the markets are evolving quickly. And they know they need to catch up if they want to ensure they are able to shape the systemic risk of a climate crisis3.

Taking action

So what are the central banks and banking supervisors doing to help transition the industry towards a greener future? Prior to COVID-19, some central banks had been surprisingly active. The EU is, perhaps at the forefront. On 23 April (in the midst of the COVID-19 situation) the european supervisory authorities published their draft regulatory technical standards related to ESG disclosures4.

The European Central Bank (ECB) has also been moving on a number of fronts. Before COVID-19, they had been hard at work helping the EU Commission develop a European-wide taxonomy to be used in climate-related information disclosures. A taxonomy should help bring a level of consistency and awareness to the industry (in Europe, at least) while clarifying which economic activity can be viewed as being environmentally sustainable.

They had also been working closely with technical expert groups on sustainable finance, green bonds and other emerging areas related to the climate change agenda. And they had started talking to their banks about their level of preparedness for dealing with the risks associated with climate change.

At the national level, central banks were also making strong intonations about their expectations for their respective banking industries when it comes to managing climate-related risks. Last year, for example, the Bank of Spain held a number of meetings with industry in which they clearly communicated they will be taking a close look at their banks' risk functions to assess their ability to understand, mitigate and measure these new risks.

The pressure is rising as more investment capital starts to flow towards **ESG**-linked and impact investment vehicles. "



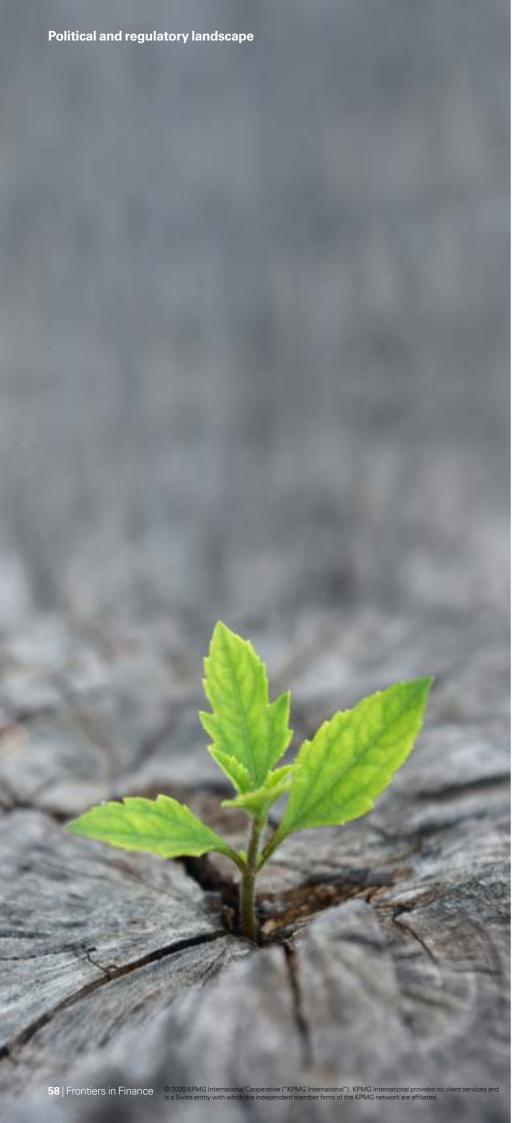




¹ https://www.theguardian.com/commentisfree/2019/apr/17/the-financial-sector-must-be-at-the-heart-of-tackling-

² https://www.ngfs.net/sites/default/files/medias/documents/ngfs_first_comprehensive_report_-_17042019_0.pdf

³ https://www.esma.europa.eu/sites/default/files/jc_2020_16_-_joint_consultation_paper_on_esg_disclosures.pdf 4 https://www.bis.org/publ/othp31.pdf



A coordinated effort

A growing number of central banks and banking supervisors are starting to work together to progress a global approach and agenda. The Network for Greening the Financial System (the group that issued the report forwarded by Mr. Carney and Mr. Villeroy de Galhau) is, itself, a global network of central banks and banking supervisors. In the 2 years since its founding, it has already grown to include 55 central bank members and 12 observers.

The Bank for International Settlements (BIS) — an institution owned by the central banks — also plays a global financial regulatory role and has weighed in with a recent report that looks at the systemic financial risk posed by climate change. Their report offers some potential policy responses that could be brought to bear by central banks⁵.

Other initiatives have also helped influence the agenda for central banks and their industry constituents. The Task Force on Climate-Related Financial Disclosures (TCFD), for example, was created by the Financial Stability Board (FSB) and included leading industry executives, thought leaders, global accounting networks including KPMG and academics from around the world. That group created a set of recommendations aimed at developing a structure for disclosing information on climate-related risks and opportunities⁶.

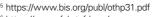
More regulation, please!

Clearly, the ongoing COVID-19 situation will slow government action in translating this thought leadership and activity into actual regulations, supervisory expectations and guidance that banks can apply to their current risk and control frameworks. For once, banks seem to be asking their supervisors for more rigor and regulation.

That won't likely come any time soon. Notwithstanding their work on taxonomy, disclosures and the green bond market, the EU is still some way off from promulgating







⁶ https://www.fsb-tcfd.org/



Political and regulatory landscape

formal regulation on the topic. That being said, the ECB is starting to include climate considerations in their current monetary policy review ("We are not sitting on our bottoms doing nothing," noted ECB head Christine Lagarde at a recent news conference).7 Other major markets seem to be stopping short of translating their 'expectations' into actual guidance.

Instead, the central banks and banking supervisors seem to be focused on encouraging the banks to have the right data, the right risk management approach and the right transition planning capabilities to ensure resilience in the face of various climate risk scenarios. They are helping banks understand what the leading organizations are doing. And they are offering tools and structures to help banks improve their ability to measure, manage and mitigate the associated risks.

What does this mean for banks?

Perhaps the biggest takeaway for banks should be that the financial system regulators and authorities are all moving in one direction on the ESG agenda. And, rather than dampen focus on the longterm climate change risk COVID-19 has sharpened it. Banks will want to achieve a clear understanding of how their particular regulators and authorities plan to achieve their agenda over the mediumto-long term.

It's not just the financial system regulators and authorities that banks will need to monitor and understand. Many banking customers — not only in the extractive industries — will soon need to comply with more stringent ESG requirements, too. And that could add significant risk to a bank's portfolio. Understanding the 'downstream' impacts will be a significant and important undertaking.

If they haven't already done so, banks should also be taking the time to

assess their preparedness for some of the risks outlined by the BIS and the NGFS in their recent reports. There are a number of organizations working to develop scenario analysis guidance (the NGFS is one group spearheading that workstream) that should help banks start to think through all of the various potential outcomes and impacts.

At the same time, banks should also be examining their data, their risk processes and their capital allocations — post COIVD-19 — to understand exactly how they are currently managing these risks. And, looking forward, they should be considering how to include climate considerations into their strategies and new operating models as they rebuild their books of business.

Banks could also be working closely with their central banks and supervisors to help shape the agenda and drive positive action. Whether through participation in regulatory task forces or simply through industry association activity, banks should be working with the regulators and supervisors to drive towards a comprehensive solution.

Central banks and banking supervisors understand that COVID-19 is going to cause deep economic challenges. And their priority today is (rightly) to manage those risks.

Yet disruption always brings opportunity. This crisis will be no different. At the very least, the COVID-19 experience will change the way communities view sustainability. And that, in turn, will create unique opportunities to mitigate the longer-term systemic risks created by climate change.

While progress may have been slowed in the short-term, there is every indication that the central banks now have every intention of getting ahead of the curve. Banks had better get ready.

Contributors



Wim Bartels **KPMG** in the Netherlands

E: bartels.wim@kpmq.nl Wim is a member of the Task Force on Climate-related Financial Disclosures and a partner with KPMG in the Netherlands. He leads Climate Risk Services globally.



Maureen Finglass KPMG in Germany

E: maureenjuliafinglass@kpmg.com Maureen is a Senior Manager in the KPMG ECB Office working with deal advisory topics in the European banking sector. Prior to joining the ECB Office, Maureen worked on a major G-SIB audit in Germany on the valuation of financial and non-financial instruments, as well as regulatory enforcement litigation topics.



Francisco (Paco) Uria Fernández **KPMG** in Spain

E: furia@kpmg.es Paco is a Senior Partner with KPMG in Spain and the EMA region Head of Financial Services, Banking and Capital Markets. A qualified lawyer, he holds a Doctorate of Law (Banking Regulation) from the Complutense University of Madrid. Paco has also authored a number of publications mainly related to financial regulation.



⁷ https://www.nytimes.com/2020/01/23/business/climate-change-central-banks.html

Spotlight on COVID-19

Central Banks respond to COVID-19

n a period of uncertainty, it's time for authorities and regulators to step up. COVID-19 has certainly developed into an unprecedented situation on a global scale — with potentially bigger impacts even than the global financial crisis (GFC) that began in 2008/09.

So, how have central banks responded? We saw during the GFC just how crucial their interventions are to supporting economies — even if there were criticisms from some that they were slow to react.

This time, it seems, they have certainly learned from the past. Actions have been rapid, and on an enormous scale. Commentators like to talk about 'bazookas' — they have been used in full force to date.

In **China**, the People's Bank of China (PBC) gave a RMB3 trillion injection into the banking system in the first half of February, with a further RMB20 billion at the end of March 2020, along with other financing support measures. In the **US**, the Federal Reserve (Fed) slashed interest rates by a full percentage point to effectively zero and launched a US\$700 billion package of quantitative easing (QE). This was accompanied by a huge fiscal intervention — the US\$2.3 trillion Coronavirus Aid, Relief and Economy Security Act (CARES). In **Europe**, the European Central Bank (ECB) extended its QE program by more than EUR750 billion. The ECB banking Supervisor has also allowed significant institutions to operate temporarily below the Pillar 2 guidance, the capital conservation buffer, and the liquidity coverage ratio. A delay in the banking stress test scheduled for this year and in some supervisory activity, have also been announced to give banks the opportunity to focus on the tasks they need to perform to support the economy during such a difficult context.

In the **UK**, the Bank of England slashed interest rates by 65 basis points to 0.1 percent, expanded its holding of government bonds by GBP200 billion, and made GBP330 billion of loans and guarantees available to businesses. In **Australia**, the central bank cut rates by 25 basis points twice during March 2020, to 0.25 percent. It established a swap line with the Fed for the provision of US dollar liquidity in amounts up to US\$60 billion and established a term funding facility of at least AUD90 billion for SME lending.

Additionally, a deal was agreed between **six major central banks including the Fed and the ECB** to lower their rates on currency swaps to help financial markets function normally.

Central banks, regulators and supervisors have been acting more quickly than ever before to take the necessary measures, overthrowing the limits of the past. They are using all the tools in their armory to support banks so that they, in turn, can support businesses and families struggling to survive. Monetary policy interventions, delays and waivers on the application of banking regulations, and relaxation on the supervisory expectations on the application of some accounting rules — these are all coming into play.

It is important to underscore that these actions are not intended to help the banks, who were in a much more resilient position in capital and liquidity that they were in 2008, but to improve their capability to fund companies, SMEs and people during COVID-19.

Turning to the ESG theme, as the world begins to emerge from the outbreak, the 'S' (social) aspect will become more important than ever. This will be the time for social consciousness and awareness to play a key role — supporting societies and communities at both a corporate and individual level. It is a unique opportunity for banks to restore the reputation they lost in the past crisis, showing how crucial they are in a moment like this. By providing the right levers and support mechanisms, central banks can smooth the way to a brighter, cleaner future.



Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system

Measurement and reporting



Political and regulatory landscape The politics Of ESG. Where are governments heading? Rohitesh Dhawan, Eurasia Group Kay Swinburne, KPMG in the UK olitics and the environmental, social and governance (ESG) agenda are inextricably intertwined. While COVID-19 may have pushed ESG temporarily to the back-burner, once the situation abates, financial services executives will need to understand the new political environment around ESG if they hope to develop a robust approach. **62** | Frontiers in Finance © 2020 KPMG International Cooperative ("KPMG International Cooperative







Political and regulatory landscape

To find out how COVID-19 is shifting the political environment related to the ESG agenda (and the impacts on the financial sector) we sat down with two global thought leaders on the topic. Kay Swinburne, currently KPMG in the UK's Vice Chair of Financial Services, represented Wales in the European Parliament from 2009 to 2019, during which time she served as Vice Chair of the Economics and Monetary Affairs Committee (ECON). Rohitesh Dhawan is the Managing Director of Energy, Climate and Resources at Eurasia Group, a global political risk consultancy, having previously worked with Yvo de Boer, former executive secretary of the UN Framework Convention on Climate Change.

Do politicians have the will and appetite to drive the ESG agenda forward?

Rohitesh Dhawan (RD) — 2020 was expected to be the high point of climate action. In the preceding months, the economics of new energies had been rapidly improving, investors had been piling in with environmental, social and governance (ESG) mandates, there were almost daily announcements by global corporates for net zero emission goals, societal concern was on the up driven by civil society actors like Greta Thunberg, and governments were getting ready for the biggest climate policy conference since Paris; COP26 in Glasgow in November.

The disruption from COVID-19 — a sharp global economic slowdown, an oil price war and a general battening down of the hatches — will affect each of these trends. Climate change will be put on the back-burner in 2020. As a result, the trajectory of climate change action needs to be recalibrated.

Kay Swinburne (KS) — I would have to agree with Rohitesh. I think governments and citizens are currently very focused on dealing with the health,

economic and social implications of COVID-19. I suspect — in many ways — this tragic experience will accentuate the need for greater focus on ESG investing. Governments are already starting to think about how they can rebuild their economies and many are hoping to achieve that in a more equitable, sustainable and environmental way.

I would argue that the EU continues to take a leadership role on ESG. And I believe we have seen some significant action come from them, particularly in terms of greening the financial services sector. The EU Green Financing Deal, for example, was a policy response aimed at creating a taxonomy, setting green benchmarks and enhancing financial disclosures for funds.

What is the risk if politicians do not take the lead?

KS — I think politicians are increasingly worried that their financial systems and their businesses will get cut off from global capital flows if they do not rebuild their economies in a more sustainable fashion. BlackRock's announcement late last year (2019) already made it clear that some assets will start to become increasingly costly to finance and eventually — economies reliant on fossil fuel will find themselves at an incredible disadvantage.

RD — Even with reduced political activity on climate change as a result of COVID-19, we expect to see increasing climate action this year and beyond. Indeed, as growth returns, what concerns me is that investor appetite for ESG-related investments will outstrip the availability of ESG-positive assets available in the market. And politics and policy have a direct role to play in this.

Without clear government signals and policy, companies and businesses lack the strong incentive to transform

towards alternative business models which, in turn, slows the development of new ESG-related assets. If that continues, we'll be on a collision course where a groundswell of capital collides with a lack of top-down policy leading to a disorderly transition.

How is the financial sector being used to drive accelerated change?

KS — Before COVID-19 unfolded, financial services firms in the EU had been thrust into the very center of the ESG action as intermediaries of capital flows. The EU doesn't regulate corporate disclosures itself — that is the job of the individual Member States. But it does regulate the financial services space across the EU. And that has made the financial sector a valuable tool in the EU's response. Essentially, the EU had asked the financial sector to disclose the ESG footprint of the constituent parts of their portfolios. And that was forcing them to have tough conversations with their corporate clients about what they need to disclose.

RD — That was certainly the intention and, once COVID-19 abates, I suspect those disclosure requirements will catalyze some players to take action. But without meaningful policy around targets and expectations, I worry this will simply become an accounting endeavor. Depending on how you measure it, some estimates suggest that the major oil companies spent about one percent of their CapEx on renewable energy investments between 2012 and 2018. That was at a time where oil prices were fairly high and it was already very clear that public opinion and investment capital was moving away from fossil fuels. So while the narrative around ESG will certainly get some momentum from forced disclosures and the like, I think the pace of the transition is still going to be slow.







¹ https://www.blackrock.com/uk/individual/larry-fink-ceo-letter

Are you concerned about what the Principles for Responsible Investing (PRI) is calling the 'inevitable policy response'?

RD — I am very worried about that eventuality. Essentially, the PRI had already raised concerns before COVID-19, that governments would suddenly find themselves forced to act 'en masse' and that would leave investor portfolios open to significant risk. That, of course, concerns me. Not because I think it's the most likely outcome. But rather because I'm worried that it would be extremely disruptive to the financial community. And I don't think we've seen enough stress testing and planning for that eventuality.

KS — Again, this is where we are hopefully seeing the EU take the lead. The European Banking Authority, the European Insurance and Occupational Pensions Authority and the Prudential Regulation Authority in the UK had been rolling out a series of stress tests to help authorities get a clear understanding of what their constituents' ESG exposures are. Over the medium-term, I suspect that will force many banks — particularly the big multinationals — to take a much

closer look at their risk across the globe.

Given the current political climate, what is your advice to financial services executives?

KS — While I certainly have faith that the political and policy environment will pick up pace towards meaningful action on the ESG agenda in the coming months, I think financial services executives must recognize that — like it or not — this shift is happening. The last thing you will want is to be left holding a portfolio of stranded assets. So this is the time to start planning and rethinking your portfolios for the short, medium and long-term.

RD — I agree. There are a number of reasons why financial services firms need to continue the march towards ESG investing and risk planning. But I think there are going to be some very serious challenges that will start to restrict firms' ability to execute on their ESG mandates. This is where politics and the ESG agenda need to come into alignment. And this is why financial services executives need to remain very mindful of the political environment as they plan their ESG strategies.

Contributors



Dr. Kay Swinburne KPMG in the UK

E: kav.swinburne@kpmq.co.uk Kay is Vice Chair of Financial Services with KPMG in the UK, and previously served as Vice Chair of the European Parliament's influential Economics and Monetary Affairs Committee, playing a pivotal role in shaping EU and global financial services legislation, including setting up the EU supervisory bodies (ESAs, SSM, SRM), capital markets union (EMIR, MiFID II, Prospectus, CCP Recovery & Resolution), and the broader banking union files. Prior to Kay's career as an MEP, Kay worked in investment banking. Kay brings a unique insight to policy 'behind the scenes' and the reality of Brexit in the aftermath of 31 January 2020.



Rohitesh Dhawan Eurasia Group

Rohitesh is Director of Eurasia Group's Energy, Climate and Resources practice where he covers the (geo)politics of the energy transition, climate change and the transformation of the materials economy. He is a trained economist and geographer from the University of Oxford and has been named one of South Africa's climate change leaders for his work with the country's mining industry.







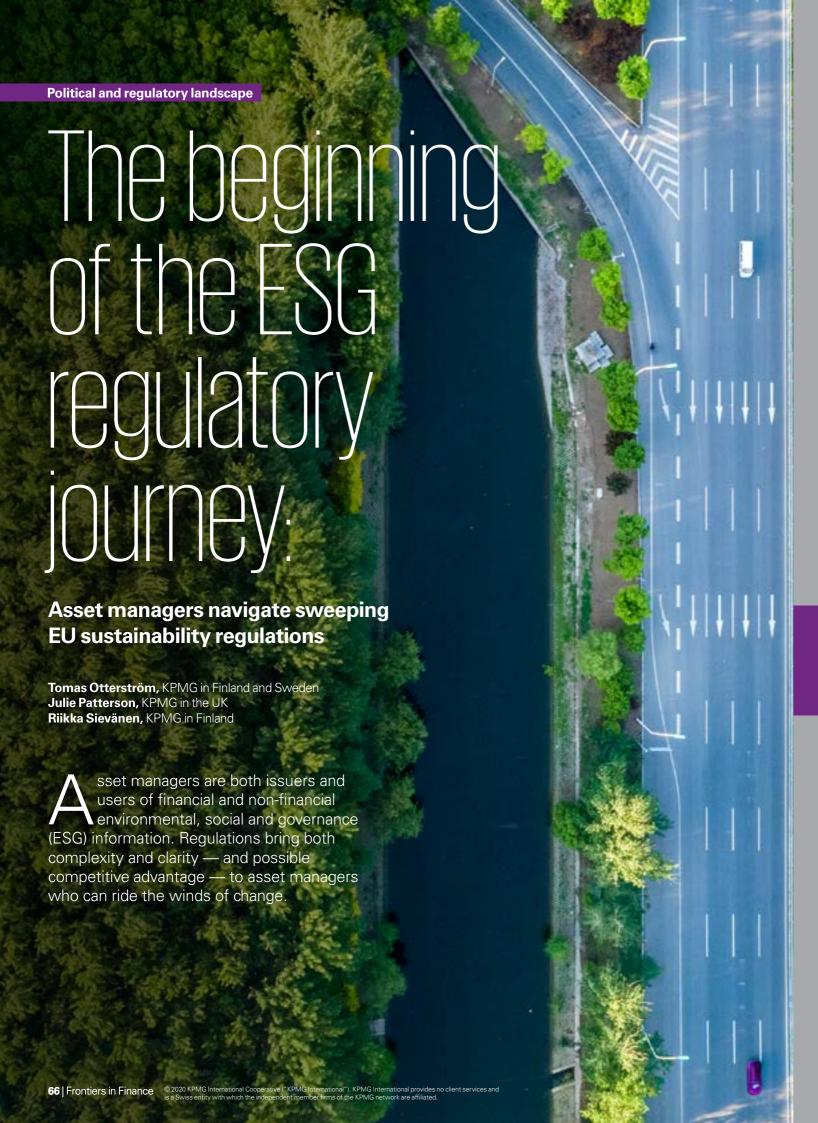




Cover story: Goldman









Chairman's message

Cover story: Goldman
Sachs: Leading towards
a sustainable future

New models for an ESGaware financial system

Measurement and reporting



Political and regulatory landscape

The winds of change began to stir virtually every economic sector when the UN Paris Agreement was signed by world leaders in 2016, not long after the UN adopted their Sustainable Development Goals (UN SDGs). Those winds have since intensified for the asset management industry, first whipping up investor demands then regulatory pressure regarding their sustainability or ESG (environmental, social and governance) practices, and now in the light of COVID-19.

The European Commission has issued an array of regulations that touch every type of asset manager and investment fund, and other types of financial services firms. Asset managers must satisfy both regulatory and investor demands to change the way they invest and report, and the products they offer.

And, given that asset managers are both issuers and users of financial and non-financial ESG information, these regulations bring both complexity and clarity — and possible competitive advantage — to firms which can ride the winds of change.

The landmark Paris agreement, building on the UN Framework Convention on Climate Change, was a defining moment for the global response to the threat of climate change. Its core aim — to limit global temperature rise — clearly implies the need to re-allocate global capital towards low-carbon and carbon neutral investments. The daily evidence of climate change has added urgency to regulators' and investors' calls for change.

The European Commission released an Action Plan for Financing Sustainable Growth in March 2020, which included clarifying institutional investors' and asset managers' duties, incorporating

sustainability into the suitability assessment of financial instruments, and increasing transparency of sustainability benchmarks.1

The Technical Expert Group on Sustainable Finance established to advise on the "how to" of elements of the plan suggested various actions focused on improving ESG corporate governance and sustainable finance activities by financial firms, and also a taxonomy defining environmentally-sustainable activities, a European standard for green bonds and an eco-label for financial products. The commission is now consulting on a renewed sustainable finance strategy, which takes forward these points.

EU rules in force or incoming

The result of this legislative flurry is a range of rules of significance to an asset manager, either as a publicly-listed company with new ESG disclosure requirements, or specifically relating to its role in the design, delivery and sale of financial services and products. Depending on the nature of their business, type of client and activities, asset managers face new requirements at the corporate governance, process and product levels.

This constellation of rules reflects regulators' attempt to catch up with investor demand. For example, by March 2020, the number of asset owners, investment managers and service providers that are signatories to the Principles for Responsible Investment had reached 2,515, up nearly 30 percent from 2018,² and it is estimated that global socially-responsible investments grew by 34 percent to US\$30.7 trillion from 2016 to 2018, with significant growth in the US and Japan.3

Depending on the nature of their business, type of client and activities, asset managers face new requirements at the corporate governance, process and product levels. ""





¹ https://www.unpri.org/news-and-press/european-commission-releases-action-plan-for-financing-sustainablegrowth-/2855.article

² https://www.unpri.org/signatories/signatory-directory

³ Bloomberg, 'Global Sustainable Investments Rise 34 Percent to \$30.7 Trillion,' April 1, 2019: https://www.bloomberg.com/news/articles/2019-04-01/global-sustainable-investments-rise-34-percent-to-30-

EU ESG-related regulations include:



The Non-Financial Reporting Directive has required companies with more than 500 staff to report on their social and environmental challenges since financial year 2017. The Commission's updated reporting guidance increases the focus on climate-related business risks and opportunities.



The Sustainability-Related Disclosures Regulation requires investment firms and asset owners to make disclosures on the integration of ESG risks and to consider adverse impacts on their investment processes and remuneration policies. Firms will also be required to disclose ESG factors and impacts on their products, including any type of investment fund, insurance-based investment product and personal pension products. Most of these rules come into force in March or June 2021, and by end-2022 investment funds must additionally disclose adverse impacts.



The Taxonomy Regulation sets out a common classification system for economic activities to be considered environmentally-sustainable with focus on sectors that play a key role in climate change mitigation and adaptation. It also requires that the economic activities do no significant harm with respect to five other environmental objectives.



'Suitability' rules have been amended to require a client's ESG preferences to be taken into account by investment advisers and insurance intermediaries. These amendments will take effect with the disclosures regulation.



The Benchmarks Regulation has been amended to create two new benchmarks — EU Climate Transition and EU Paris-aligned — to help increase transparency and prevent greenwashing. Different aspects of these rules take effect on dates from April 2020 to January 2022



Stress testing rules for banks: The Commission is developing tools and mechanisms to integrate ESG factors into the EU banking prudential framework, banks' business strategies, investment policies and risk management processes.



Eco-label for retail investment products: The Commission is drawing up proposals for an eco-label for certain financial products, such as 'sustainability funds' and 'green bonds,' to enable investors more easily to direct their monies into sustainable investments.

Visit **KPMG Regulatory Horizons** for an overview of current and expected financial services regulations.

Devil in the details, definitions and data

Such surging demand for responsible investments is critical to help meet the Paris Agreement and the UN SDGs, but it also speaks to the need for shared regulations and guidelines to channel capital effectively.

Asset managers are at the center of this challenge but face diverse approaches and inconsistent definitions of sustainability concepts by asset owners, jurisdiction, business sector, and professional or industry standardssetting bodies. Without consistent definitions, it is difficult to determine the data points required to set comparable targets, monitor investments, and measure and compare performance against peers, let alone across the financial services sector, industries, and national or regional borders.

Moreover, asset managers must perform this in-depth data collection to satisfy their own corporate reporting requirements, to conduct appropriate investment and risk management decisions, and to make disclosures to clients and fund investors.

The challenge is compounded by the fact that, for a typical asset manager that invests in multiple, distinct asset classes, industries and geographies, there are endless subsets of relevant ESG considerations, which depend on underlying data for informed and accurate decision-making.

Committing to the sustainability journey

Although this shift to integrate sustainability into investing may seem overwhelming, it is critical to recognize it as a journey or transition, rather than an immediate outcome. Every asset manager should establish its overarching vision and strategy, identify opportunities and risks, and adjust its investment principles and process to achieve those goals. Investors will expect nothing less.



Chairman's message

Cover story: Goldman Sachs: Leading towards a sustainable future

New models for an ESG aware financial system

Measurement and reporting



Political and regulatory landscape

An in-depth business-driven roadmap can then be developed, to manage the business opportunities and risks that sustainable finance and responsible investment brings. The roadmap will cover ESG integration into governance and organization, as well as key business processes such as compliance, risk management, product development, investment management, data management and analysis, investee relations, investor relations, sales and reporting.

In order to set the ambition level and appropriate targets, a good understanding of the changes in the operational environment and internal capabilities will be needed. This is likely to include assembly and consideration of regulations, standards and good practice; analysis of client expectations; evaluation of peer approaches; analysis of current state with regard to work streams; and assessment of management views and the organization's expertise.

Targets, actions and a monitoring plan can then be defined, and the necessary capabilities developed. These efforts should be synchronized across the asset manager's business units, functions and asset classes, to ensure efficiency and consistency. Flexibility and adaptability are paramount, given that ESG rules, standards and stakeholder expectations will continue to evolve.

With this approach, KPMG member firms have already seen some clients successfully advance through each stage of their sustainable finance roadmap. While most are seeking to absorb and

incorporate the current compliance imperatives in their operations and reporting mechanisms, while simultaneously managing the impacts of COVID-19, they are exploring ways to anticipate future direction of sustainable investment.

For example, some European financial services firms have already made attempts to apply the preliminary Taxonomy Regulation to their portfolios. This proactive approach enables firms to gain an early understanding of the changes needed to their operations and positions them as credible, trusted partners with regulators, to help shape future rules.

Asset managers' journeys to full sustainable finance cannot be slow, given investor demands and mounting regulations. But the end-game is not known and the transition cannot be too quick. Expectations and standards are still evolving and abrupt change could pose risks for economies and individuals, and therefore for clients' portfolios, against the difficult backdrop of post COVID-19 economic recovery.

However, if the necessary convergence of regulations and standards can be achieved, asset managers could benefit from common rules that are clear but not unnecessarily prescriptive. And, with definite investor momentum behind sustainable investing, there is a real business opportunity — and competitive advantage — for those asset managers that make their way from a minimum compliance approach to the front of the pack, on the sustainable finance journey.

Contributors



Tomas Otterström KPMG in Finland

E: tomas.otterstrom@kpma.fi With over 20 years of work experience as a consultant and asset manager, Tomas has worked with dozens of institutional investors and asset management companies to understand and integrate ESG into their investment policies, and measure the impact of this for their business. He is the KPMG Global Leader for Sustainable Finance. and leads the Sustainability Services practice at KPMG in Finland and KPMG in Sweden.



Julie Patterson KPMG in the UK

E: julie.patterson@kpmq.co.uk Julie has specialized in the asset management and funds sector for nearly 20 years, having previously worked at the UK Investment Association and as a regulator. She has extensive knowledge of EU regulation and national market structures, produces thought leadership on the evolving regulatory context, and is KPMG's global lead on Brexit for the sector.



Riikka Sievänen **KPMG** in Finland

E: riikka.sievanen@kpmg.fi Riikka coordinates KPMG Finland's Sustainable Finance services, including ESG in Investor Relations and is the Working Group Lead of Sustainable Finance Services within the KPMG network. She also acts as an Advisor to the EU Technical Expert Group on Sustainable Finance. In her daily work, Riikka supports institutional investors, asset managers and banks with sustainability and ESG at the levels of strategy, practice, reporting and assessment.





Publications

KPMG member firms provide a wide-ranging offering of studies, analysis and insights on the financial services industry. For more information, please go to kpmg.com/financialservices



Sustainable investing

KPMG International, CREATE-Research, AIMA and CAIA Association, examine in detail sustainability investing and its impact on the alternative investment industry. The research includes insights from 135 institutional investors, hedge fund managers, asset managers and pension consultants in 13 countries in all the key



Pulse of Fintech H2 2019

Analysis of the latest global trends in venture capital, M&A and PE investment activity in the fintech sector. In this edition, we feature 2020 trends and perspectives on how IoT is creating opportunities for fintech, and alliances between 'big techs' and traditional Fls.



The future is open: Reshaping the banking experience

Banks today face profound industry challenges, even so, we believe the future is open with opportunities. This 10-part article series cover a range of topics related to technology innovation and disruption, providing practical insight into how banking executives can leverage the trends for sustainable competitive advantage.



Operational excellence in insurance

KPMG and ACORD launched a survey report on operational efficiencies to understand where insurance companies are on their transformational journey and where they are heading. A majority are falling behind and a lack of process standardization and strategic vision is the primary obstacle to future transformation efforts.



Getting digital right

Asset managers' views on the benefits of 'going digital' are wide-ranging, but broadly they are seen under the following 3 target outcomes: Improving client engagement, Improving efficiency and controls and Improving business management.



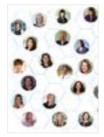
The future of payments

Views from global industry leaders panning banking, technology, the fintech sector and regulation — about how they view the future of payments in respects to regulation, economics, social, technology and operations.



Implications of COVID-19 for financial services

Resources for financial institutions to help them navigate current challenges and best position their business for a new reality post COVID-19. Content provides in-depth insights through articles, blogs, podcasts and videos.



Mind the Gap: Women in Financial **Services Leadership**

Mind the Gap is a blog series that features interviews with Laura Hay, Global Head of Insurance, and women executives from the financial services industry around the world. Laura and her guests discuss their career progression, professional failures and successes as well as a variety of other topics.



Missed an issue of Frontiers in Finance?









Back issues are available to download from home.kpmg/frontiersinfinance

Frontiers in Finance is a forward-looking collection of market insights, thoughtprovoking perspectives and sector-specific issues that impact key decisionmakers of financial services organizations around the world. All articles are written by industry-leading and experienced professionals from across our Global Financial Services practice.

KPMG's Global Financial Services practice has more than 53,000 partners and professionals across the KPMG global network of 147 member firms, providing audit, tax and advisory services to the retail banking, corporate and investment banking, investment management, and insurance sectors. KPMG professionals bring ideas, innovation and experience from across this network, to the benefit of financial services clients around the world. Member firms offer leading financial institutions practical advice and strategies backed by world-class implementation. We believe our commitment to the industry, our sector-specific insights and our passion for serving member firms' clients to the very best of our abilities help us stand out.

We welcome the opportunity to discuss how KPMG member firms can help you achieve your business objectives.



KPMG was ranked No.1 for Quality in Source's annual global survey of end users of consulting services. Source's customers include every single one of the world's biggest 20 consulting firms and is the leading provider of research, data, and strategic advice about the global management consulting industry. For more information, please visit: www.sourceglobalresearch.com





Contacts



Ricardo Anhesini Socio líder de Servicios Financieros de KPMG en América del Sur T: +551139403141 E: rsouza@kpmg.com.br

home.kpmg/socialmedia











© 2020 KPMG Auditores Independentes, uma sociedade simples brasileira e firma-membro da rede KPMG de firmasmembro independentes e afiliadas à KPMG International Cooperative ("KPMG International"), uma entidade suíça. Todos os direitos reservados. Impresso no Brasil.

Todas as informações apresentadas neste documento são de natureza genérica e não têm por finalidade abordar as circunstâncias de uma pessoa ou entidade específica. Embora tenhamos nos empenhado em prestar informações precisas e atualizadas, não há garantia de sua exatidão na data em que forem recebidas nem de que tal exatidão permanecerá no futuro. Essas informações não devem servir de base para se empreenderem ações sem orientação profissional qualificada, precedida de um exame minucioso da situação em pauta.

O nome KPMG e o logotipo são marcas registradas ou comerciais da KPMG International.

Designed by Evalueserve.

Publication name: Frontiers in Finance — South America Publication number: 136825-G (South America) Publication date: May 2020