

A large background image showing a field of wind turbines under a blue sky with soft, white clouds. The turbines are dark in color and are scattered across the landscape, with some in the foreground and others further back, creating a sense of depth. The overall tone is clean and modern, emphasizing renewable energy.

A TIME FOR ACTION

Opportunities for Asia
to Further a More
Sustainable Future

July 2021

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Peter Babej
Citi Asia Pacific CEO

A TIME FOR ACTION

“Climate change is a critical challenge to our global society, and we must meet this challenge together.”

Last year equaled 2016 as the hottest year in worldwide temperature records dating back to 1880, and all of the top 10 years have occurred since 2005. Chronic climate change in turn drives severe weather events, human and economic loss. These are not arguments — they are facts.

We also know that climate change is exacerbated by unsustainable economic development, and that the consequences of climate change are magnified by economic inequality within and across countries. The most vulnerable suffer disproportionately, drawing into question the responsibility and humanity of governments across the globe. These interconnected challenges, if not addressed proactively, represent an existential threat to global safety, health, prosperity and stability.

The requisite actions to meet the challenge will include far-reaching transitions in energy systems, industrial processes, land use, construction and transport. These actions will need to be globally coordinated among countries, and businesses across borders will play an equally important role. As we speak, leading global investors are already driving pivotal climate-related initiatives, setting standards for the companies they support, and leading these firms toward the low-carbon models of the future. The broader market, as well, has begun to reward long-term vision and sustainable returns, with debt and equity of many ESG champions trading at premium levels. There is a growing recognition that sustainable investment is not only the right choice for the environment, but also a winning business strategy.

Principles, to joining other financial institutions in setting best practices for our industry.

Yet, the past several years have witnessed a significant acceleration of risk and we need to step up our efforts accordingly. With this objective in mind, we have launched our broad-based Sustainable Progress Strategy, which is focused on speeding up the transition to a global low-carbon economy.

In April, we announced our commitment of US\$1 trillion to sustainable finance by 2030, which aligns with the agenda of the United Nations' Sustainable Development Goals. We are also committing to net zero greenhouse gas emissions by 2050, which will include emissions-reduction targets for

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In sourcing and channeling growth capital, the financial sector bears a special responsibility to elevate awareness among investors and borrowers. As the world's most global bank, we at Citi are fully focused on this responsibility across the more than 160 countries and jurisdictions we serve. We also understand the complexity of developing comprehensive solutions, which require strong government policy, robust regulation, and coordinated leadership among public and private institutions.

To meet the global climate challenge, all of us must redouble our commitment. Our company has a track record of more than 20 years driving progress on this front — from helping establish the Equator Principles, Green Bond Principles and Poseidon

carbon-intensive sectors with low-carbon transition opportunities. We aim to reach net zero greenhouse gas emissions in our own operations globally by 2030.

In this effort, we are conscious that our region is in a critical position — both in accounting for almost half of global emissions, and in its particular exposure to climate-driven human and economic risks. Asia can and must be a leader in driving positive change across the globe, and all of us at Citi Asia Pacific are committed to doing our part.

We look forward to partnering with you all in building a sustainable future.

Peter Babej | Citi Asia Pacific CEO





Supporting a Sustainable Future

Net Zero Commitment

Earlier this year, Citi made a commitment to achieve net zero greenhouse gas (GHG) emissions by 2050. This commitment includes our own operations as well as our financing activities.



In March 2021, Citi announced its commitment to net zero greenhouse gas emissions by 2050.

By early 2022, we will publish our initial plan to achieve net zero by 2050. The plan will cover emissions reduction targets for carbon-intensive sectors that also have net zero transition opportunities, including interim emissions targets for our Energy and Power portfolios. For our own operations, we are targeting net zero GHG emissions by 2030.

After an initial implementation period, we will review the scope of our Net Zero Plan to assess which additional sectors to include, and how best to incorporate additional areas of our business in a way that achieves meaningful emissions reductions.

Sustainable Progress Strategy



We met our 10-year
environmental finance goal
four years ahead of
schedule in 2019



We announced in July 2020
our Sustainable Progress
Strategy, which is focused
on accelerating the
transition to a global
low-carbon economy

At Citi, we have long recognized the urgency of climate action and the influence a global bank like ours can have in helping drive progress towards a low-carbon economy. This is not a responsibility we take lightly. In 2014, we set a 10-year goal to finance and facilitate US\$100 billion in environmental activities. We met and exceeded this goal reaching a total of US\$164 billion in environmental finance activity four years early in 2019, underscoring the market's demand for climate solutions.

Building on this momentum, we announced in July 2020 our second **Sustainable Progress Strategy**, a new five-year effort that focuses on financing climate solutions, deepening climate risk assessment and disclosure, and reducing the environmental impacts of our operations.

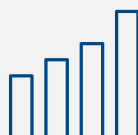
Sustainable Progress Strategy

There are three primary pillars for the strategy:



Low-Carbon Transition

Accelerate the transition to
a low-carbon economy
through financing and
facilitating environmental
solutions



Climate Risk

Measure, manage and
reduce the climate risk
and impact of our client
portfolio



Sustainable Operations

Reduce the environmental
footprint of our facilities
and strengthen our
sustainability culture



Low-Carbon Transition

At the core of the strategy is our commitment to finance US\$500 billion in environmental solutions and projects by 2030, as part of our **US\$1 trillion commitment in sustainable finance**.

To help accelerate the transition to a low-carbon economy, we are financing and facilitating activities in:

- Renewable Energy
- Clean Technology
- Water Quality and Conservation
- Energy Efficiency
- Sustainable Agriculture and Land Use
- Green Buildings
- Circular Economy
- Sustainable Transportation

We recognize that while companies are at different stages in their sustainability journey, there is an urgent need for us, as an organization and a society, to help beat back the tide of climate change. We will continue to develop innovative financing structures and look for opportunities to support clients in all sectors through the transition to a low-carbon economy.



Climate Risk

Measuring, managing, and reducing the climate risk and impact of our client portfolio is central to our ability to help drive the low-carbon transition. As part of this effort, we joined the Partnership for Carbon Accounting Financials, and we are working with others in our sector to create a global carbon accounting standard.

We are committed to aligning our climate assessment and disclosure with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. We released our first TCFD report in 2018 and a second edition in 2020.

Building on our Environmental and Social Risk Management (ESRM) Policy and experience in climate risk analysis, we will further test the resilience of our lending portfolios to transition and physical risks related to climate change. We will also begin measuring the climate impact of our portfolios and their potential alignment with 1.5- and 2-degree Celsius warming scenarios.

These analyses will help accelerate our understanding of the climate risks faced by Citi and our clients, and the possible pathways for our collective transition to a low-carbon economy.



Sustainable Operations

Whether undertaking new construction or renovating existing buildings, we prioritize energy efficiency and sustainability to minimize the environmental impact of our facilities around the world. We track our impacts through a centralized environmental management system and report annually on global energy use, carbon emissions, water use, waste-to-landfill, and green building initiatives. Today, we are sourcing 100% renewable electricity for our facilities globally, a goal that we met in 2020 through a combination of power purchase agreements, renewable energy credits, and on-site generation.

Our 2025 Operational Footprint Goals are our fourth set of such goals, which began in 2007 when we established our first set of targets. The new goals build on the progress we made with our previous footprint goals and include a new GHG emissions reduction target. While the Intergovernmental Panel on Climate Change recommends that GHG emissions be reduced by 45% by 2030 with a baseline of 2010, we are accelerating that timeline with a 45% reduction target in GHG emissions by 2025, and net zero GHG emissions by 2030.

2025 Operational Footprint Goals

We will begin reporting progress against these goals with data gathered during 2021, aiming to achieve them by the end of 2025 (measured against a 2010 baseline).



GHG Emissions

45%

reduction in
location-based
GHG emissions



Energy

40%

reduction in energy
consumption and
maintain 100%
renewable electricity
sourcing



Water

30%

reduction in total water
consumption and 25% of
water consumed to come
from reclaimed/reused
sources



Sustainable Buildings

40%

of floor area to be LEED, WELL
or equivalent certified with a
focus on Citi-owned buildings
to operate at the highest level
of sustainability



Waste

50%

reduction in total
waste and 50% of
waste diverted
from landfill



Renewable Energy Installation at Citi Tower in Hong Kong

In March 2021, Citi Hong Kong announced the successful installation of a hybrid electrical and thermal renewable energy system on the rooftop of Citi Tower in Kowloon East. The 360 solar panels produce 85,337 kilowatt-hours of renewable electricity, which is equivalent to the annual energy consumption of 20 households. The hybrid system, which also uses the sun's energy to heat up water for use in Citi Tower, will contribute to a cost saving of approximately 4% of the building's annual power consumption.

This installation is the largest of its kind within the Citi Asia Network, and the first one to be connected to the power grid. Under the renewable energy feed-in tariff (FIT) scheme operated, Citi will receive FIT payments for connecting the system to the electricity grid.

Our US\$500 Billion Environmental Finance Goal

By 2030, we aim to finance and facilitate US\$500 billion in solutions that address climate change around the world.

To be counted toward the goal, a transaction must meet at least one of the following criteria:



Renewable Energy

Generation and/or storage of energy from renewable energy sources



Clean Technology

Products, equipment, methods and projects that mitigate greenhouse gas (GHG) emissions



Water Quality & Conservation

Improvement of water quality, improved efficiency and increased availability and conservation of freshwater resources



Sustainable Agriculture & Land Use

Sustainable ecosystem management leading to carbon removal from the atmosphere, reduced emissions, improvement of soil fertility and conservation of natural resources



Green Buildings

Construction or renovation of certified buildings for reduction or efficiency in energy use, resource consumption or for lowering GHG emissions



Circular Economy

Substitution of virgin raw materials with recycled or recyclable materials, elimination and replacement of hazardous/toxic materials with sustainable or recyclable materials or recovery of materials from previously discarded products or projects



Energy Efficiency

Residential and commercial energy efficiency improvements that reduce energy consumption



Sustainable Transportation

Zero-and low-emissions vehicles, public transportation or related infrastructure construction and efficiency improvement

In 2020 – the first year of our new goal – we financed and facilitated environmental solutions around the world:

US\$13.8B

North America

US\$10.7B

Europe, Middle East
and Africa

US\$28.0B

Total

US\$1.1B

Latin America

US\$2.4B

Asia Pacific

These activities resulted in measurable impacts:

2.6 M mt CO₂e

Avoided emissions

33K

Jobs supported (direct,
indirect and induced)

11M

Population in U.S. cities
and counties served by
water quality projects

1,987

Families served by green
affordable housing

1,650MW

New renewable
energy capacity

Environmental Finance in Action

Examples of recent environmental finance transactions conducted in Asia



China Mengniu Dairy

In 2021, Citi led a HK\$2.3 billion green loan for China Mengniu Dairy Company Limited, a leading Chinese manufacturing and distribution company of dairy products. Mengniu Dairy will use the proceeds for the production of natural organic milk and to improve the company's energy and water saving capabilities. The loan represented Mengniu's inaugural ESG financing and the first green loan issued by a Chinese dairy company, which sets a benchmark for its future ESG financing.



GLP

In early 2021, Singapore's GLP successfully closed a US\$658 million 3-year sustainability-linked revolving credit facility. The loan features a margin adjustment mechanism based on an ESG Score assigned to the company from time to time by Sustainalytics as the sustainability auditor. The loan represents GLP's inaugural ESG and sustainability-linked financing and sets a benchmark for its future fundraisings.

Later in the year, GLP raised US\$850 million via the largest US dollar green subordinated perpetual bond globally. It also marked the first green US dollar corporate subordinated perpetual bond in Asia Pacific and the first US dollar corporate hybrid bond by a Singapore issuer. Underlining the attractive financing on offer in this market, the bond offered the lowest reoffer yield and coupon for US dollar green senior and subordinated corporate hybrid globally.



Xinyi Solar

In 2020, Citi helped raise over US\$800 million from equity markets for China's Xinyi Solar, the largest solar glass manufacturer globally and a leading non-SOE (state-owned enterprise) solar farm owner and operator in China. Xinyi Solar will use the proceeds for solar glass production capacity expansion and the development and construction of new solar farm projects. Xinyi Solar was included as a constituent stock of the Hang Seng Index, effective 7 June 2021.



Investor Perspectives

BlackRock

Navigating the Transition to a Low-Carbon Economy Using ETFs

BlackRock believes climate risk is investment risk, and market participants increasingly share this view. Our clients from around the world recently reported plans to double their sustainable assets over the next five years with climate change highlighted as the most prominent sustainability issue. Reshaping the global economy to meet the climate threat is already having major financial ramifications for companies and investors. BlackRock expects this trend to accelerate.

We do not believe that the risks and opportunities presented by climate change are yet priced into the markets. Therefore, the biggest potential benefits may accrue to the global investors, who are quickest to position their portfolios for the new era of climate investing.

Increasingly, investors are asking us for choices on how to incorporate climate into their investments. Further, investors and companies are looking for a pathway to transition their investments to meet their own commitments to a net zero economy — one that emits no more carbon and other greenhouse gases than are removed from the atmosphere.

BlackRock is expanding access to sustainable solutions that factor in climate change by making available a wide range of ETFs and fund structures. These products provide choice for clients to address the climate imperative and navigate the transition to a low-carbon economy. These products are now being used in many ways by Asian investors and asset managers.

1. Four ways climate will impact investors around the world

We believe that the transition to a low-carbon economy will impact asset prices for decades to come; this will be shaped by:

1 Physical Impact:

Demand for solutions to mitigate physical climate risk will foster new business models and transform sectors like infrastructure, agriculture, and energy.

2 Regulation:

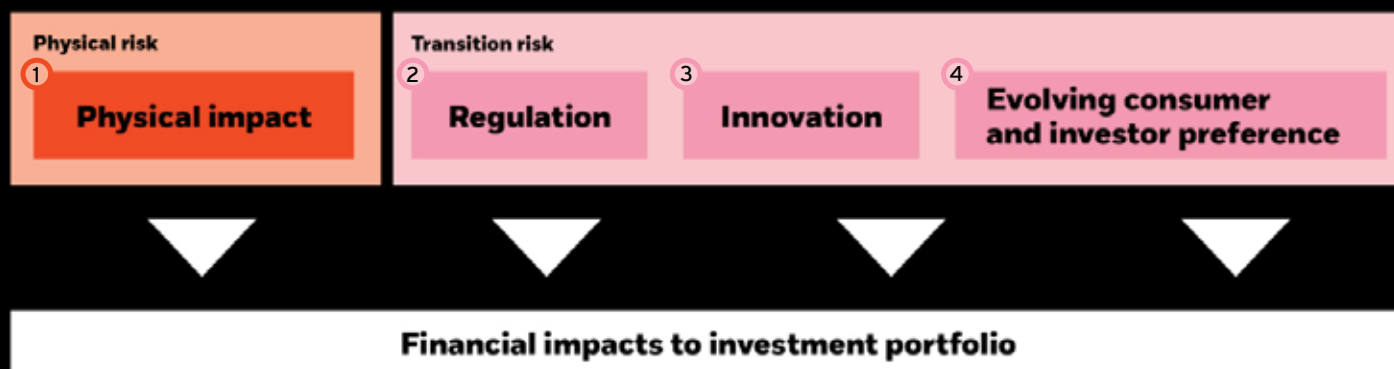
A tidal wave of regulation related to greenhouse gas emissions, including climate laws, penalties and incentives, will impact valuations in all asset classes as nearly 200 governments have joined the Paris agreement and companies adapt their business models to become net zero by 2050.

3 Innovation:

Growth-seeking investors could find once-in-a-generation opportunities as advances in technology bring scale and reduce cost in areas like renewable energy, electric vehicles, etc.

4 Evolving consumer and investor preferences:

With shifting societal attitudes towards sustainability, companies that do not respond to the climate threat could face potential reputational damage.



¹ Blackrock Portfolio Perspectives: "Climate change Turning investment risk into opportunity", Feb 2021
For illustrative purposes only. Source: Blackrock: "A sea change in global investing", May 2021

2. Incorporating climate risks and opportunities into every portfolio

While “broad” ESG strategies have been growing and developing over the past few years, the focus on climate risk is relatively new and we believe that it is transforming the sustainable investment landscape. Until recently, divestment was the predominant way to express climate-oriented objectives, for instance by excluding fossil fuel producers or reducing exposure to carbon emissions. However, the advancements in data and analytical tools have enabled more sophisticated approaches to climate investing, which can replace or complement traditional investing.

BlackRock sees three approaches to climate investing, as detailed below.

Broad Building Blocks		Targeted Exposures
Reduce exposure to carbon emissions or fossil fuels	Prioritize investments based on climate opportunities and risks	Target climate themes and impact outcomes
Fossil fuel and carbon emission reduction strategies seek to exclude or diminish the presence of securities affiliated with fossil fuel production from portfolios; may include broad environment, social and governance (ESG) funds with stringent fossil fuels-related screens.	Advances in data and disclosure about climate-related business activities allow investors to pursue strategies designed to increase exposure to securities that may be better positioned for the transition to a low-carbon economy, and to decrease exposure to securities that may be poorly positioned.	Targeted investing focuses on specific themes that represent opportunities in the transition economy. Investors with higher convictions and a higher tolerance for risk and returns that deviate from broad benchmarks may want to consider thematic investments.
Strategy examples		
<ul style="list-style-type: none"> > Fossil fuel screened exposures > Low carbon target 	<ul style="list-style-type: none"> > Carbon transition strategies 	<ul style="list-style-type: none"> > Green bonds > Clean Energy

3. Integrating climate into Asian investors' portfolios

Innovation has enabled many types of investors to weave climate-oriented exposures into portfolios. A key catalyst for this is better data and disclosure — more firms are disclosing climate-related metrics, in greater breadth than before, and using widely accepted standards. This increasingly comprehensive climate data is the foundation for building the indexes and investment strategies that underpin climate-oriented investment products.

In Asia Pacific, a broad spectrum of investors, from asset owners to wealth managers, are turning to climate-oriented products. Many are turning to ETFs for a liquid, transparent and efficient way to help build portfolios for the transition to a low-carbon economy. What follows are three use cases recently implemented in the region, using sustainable ETFs as foundational, long-term investment propositions.

Broad Building Blocks		Targeted Exposures
Reducing exposure to fossil fuels in an Asian private bank's portfolios	Prioritizing equity opportunities in low-carbon transition readiness	Bringing global net zero opportunities to the retail segment in Thailand
An Asian private bank was looking for stringent fossil fuel screens to replace long-term equity holdings for their advisory clients. While excluding fossil fuels was the highest priority, they were receptive to broad ESG strategies that could potentially outperform in the long term.	A large asset owner in South East Asia was interested in investing in broad-based strategies that seek to overweight companies that may be better positioned to benefit from the transition to a low-carbon economy and underweight ones that may not be as well-positioned.	A prominent asset manager in Thailand recognized the growing demand for sustainable thematic investing among retail investors in the country. They wanted to bring to market a simple, targeted offering reflecting opportunities from the transition to a low carbon economy.

The Solution:

SRI Reduced Fossil Fuel ETFs

Using ESG best-in-class ETFs as building blocks for developed market equities helped the bank prioritize higher-rated ESG companies while screening out controversial activities and fossil fuel-related businesses. These ETFs had the added benefit of reducing the carbon emission intensity in their clients' portfolios by 60-70%.

Low-carbon transition readiness ETFs

Blackrock has created actively managed strategies that capture companies' positioning vis a vis transition risks and opportunities. Offering these strategies in a convenient, low-cost ETF wrapper can serve to democratize access to this innovative equity investment strategy.

Clean Energy ETFs

Investors who believe in the upside potential in niche but growing areas like clean energy, electric vehicles, and green bonds may benefit from a targeted approach that is narrower than a broad ESG or climate benchmark. The asset manager set up a feeder fund investing into a pure-play ETF of companies producing energy from wind, solar, and other renewable sources.

4. BlackRock is committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner

In 2021, BlackRock committed to creating solutions with explicit temperature-alignment goals to allow clients to pursue their net zero objectives, as well as products that will help navigate the transition to a net zero economy. We promote transparency and measurement and have committed to publishing a temperature alignment metric for our public equity and bond funds for any markets with sufficiently reliable data. The questions for investors are not whether climate change will have material financial implications, but when and where.

Our products, portfolios, analytics, and portfolio consulting engagements increasingly allow investors to reposition portfolios in line with the evolving regulatory and policy stance on addressing climate risk. For instance, BlackRock's Paris Aligned ETFs are designed to reduce exposure to climate risks, manage climate change opportunities, and align with a decarbonation trajectory that is compatible with the Paris Agreement. Similarly, our range of Australian-listed ESG Leaders ETFs combine best-in-class ESG selection with exclusion of businesses deemed by regulators as being controversial or having heightened climate risk.

Policy shifts are taking shape throughout the world — China's net zero initiatives now span a range of industries from energy to waste management. In Europe, the Sustainable Finance Disclosure Regulation (SFDR) is helping demystify sustainable investing for end investors by harmonizing disclosure standards. This has the effect of investors shifting away from traditional exposures and into sustainable strategies. In the US, sustainability is coming into focus in discussions ranging from infrastructure investment to pension policy. These shifts are shaping the way we think about sustainable investment solutions in the region in the years to come.

Manulife Investment Management

Investing in Asia's Sustainable Future

Global systemic environmental and social issues need to be addressed in Asia and substantial funding needs present compelling opportunities.

A concentration of ESG risks and opportunities in Asia

The International Energy Agency stated in 2019 that “There is a new reality in clean energy. The world’s major emerging economies — including China, India, and several others — are moving to the center stage of the clean energy transition.” In fact, the region is the largest investor in low-carbon energy sources.¹ This is not a moment too soon, as Asia is already responsible for around 50% of global carbon emissions.²

Looking ahead, as Asia continues to grow, its need for energy rises. The region is expected to drive more than two-thirds of the world’s new energy demands over the next 20 years as well, a key period for addressing climate change.³ Fortunately, China manufactures 80% of the world’s solar cells,⁴ and 20 of the top 33 wind turbine suppliers are from Asia.⁵ The region’s supply and demand side are both critical for the world’s decarbonization.

We find that a similar pattern emerges across almost any ESG issue. The region accounts for nearly 63% of the world’s material use,⁶ half of the world’s biodiversity hotspots,⁷ and increasing

¹ IEA, [A New Era of Shared Clean Energy Leadership Begins in China](#), 4 Jun 2019

² [BP Statistical Review of World Energy 2019](#)

³ Wall Street Journal, [Can Solar Power Compete With Coal?](#) 17 Feb 2019

⁴ Forbes, [How China's Solar Industry Is Set Up to be the New Green OPEC](#), 14 Mar 2021

⁵ [APAC Now the World's Largest Wind Turbine Manufacturing Hub](#), 9 Jul 2020

⁶ [GO4SDGs Launches in Asia-Pacific to Boost Resource Efficiency and Sustainable Consumption](#), 21 Apr 2021

⁷ [Scientists Warn of Dangerous Decline in Asia-Pacific's Biodiversity](#), 23 Apr 2018

water scarcity. Also, with its coastal megacities, the region is vulnerable to sea level rise and people are twenty-five times more likely to be affected by natural disasters than in Europe.⁸

It's not just environmental issues either, social topics are also prevalent, with the region representing 60% of the world's population. As billions of people join the middle class across Asia,⁹ the implications for nutrition, healthcare, labor standards, and changing customer preferences will create risks and opportunities. However, these social opportunities must be carefully navigated because the population is aging three to four times faster than developed nations, and there is a wide diversity of cultures across Asian countries and communities.

A disconnect with global capital

Global investors are prioritizing these systemic challenges and the momentum is hard to ignore. PRI signatories now represent a dominant US\$100+ trillion of AUM¹⁰ with one-third of the world's AUM also committed to net zero emissions.¹¹

However, there is a growing disconnect between the capital committed to addressing these issues and where it is being invested. Morningstar calculated that as of first quarter of 2021, sustainable funds in Asia Pacific represented just 4% of global sustainable investing assets and 1.8% in Asia ex-Japan ex-Australia / New Zealand.¹² Meanwhile, Europe represents 81.9% of sustainable investing assets, but the EU-27 emitted 8% of the world's emissions in 2019, which is also likely to decline. It is inevitable that this will shift as investors who are serious about their commitments increasingly look at the substantial opportunities in Asia.



⁸ ADB, Asia-Pacific's Vulnerability to Climate Change, 2012

⁹ World Economic Forum, The Rise of the Asian Middle Class, 13 Jul 2020

¹⁰ PRI Signatories Now Exceed US\$100 Trillion AUM, 9 Nov 2020

¹¹ Third of World's AUM Now Targeting Net Zero As Support for Asset Manager Framework Grows, 29 Mar 2021

¹² Reuters, Sustainable Fund Inflows Hit Record High in First-Quarter: Morningstar, 30 Apr 2021



Manulife Investment Management's approach

At Manulife Investment Management, we believe we share sustainability goals with our clients and welcome working with them on this journey. As long-term investors in the region, we are familiar with the fragmented and heterogenous nature of Asian economies. We have local teams across the region that have a deep understanding of Asia's different cultures and histories. This is key to our approach as many sustainability issues are geographically and locally specific, and require local language skills and knowledge to properly assess. In general, this specialized experience cannot be replaced by third-party ESG data providers. We also supplement our extensive footprint in the region with a robust ESG integration framework, proprietary research capabilities, and a holistic approach that includes active ownership and engagement.

The importance of collaboration

There is a lot we can do on our own, but some things are better done together. We work collaboratively with banking partners, non-governmental organizations, industry peers, non-profits, regulators, and academic institutions. This allows us to encourage the systemic changes that are needed across companies, markets, and regulation frameworks, contributing to the resiliency of our portfolios and overall capital markets. This may be on a regionally-thematic level, such as chairing the physical risk working group of the [Asia Investor Group on Climate Change \(AIGCC\)](#); at an industry level through our participation in the [Asia Corporate Governance Association](#); and on a globally-thematic level by collaboratively engaging a group of companies through an organization like [Climate Action 100+](#). We find that these initiatives help us lead the shift in market practices while learning about the most recent research and thinking on current and emerging trends. By working together, we believe we can begin to address some of the most pressing sustainability challenges in the region and the world.

The Issuers' View: Citi Asia Pacific ESG Survey Findings

In the first quarter this year, Citi conducted a survey among 259 institutional clients in 14 markets across Asia Pacific to better understand how institutional borrowers and issuers are embracing the ESG agenda¹.

The results of Citi Asia Pacific's ESG client survey revealed that over 50% of the respondents² from 14 countries in the region already have ESG policies and practices integrated in their organizations' corporate strategy. Close to 90% of the other respondents intend to roll out ESG policies and practices within five years (Exhibit 1).

Evidently, sustainability is coming of age in this region. While Asia has some catching up to do compared with countries in the Nordics and eurozone³, the next five years is where ESG development will gain significant momentum in the region.

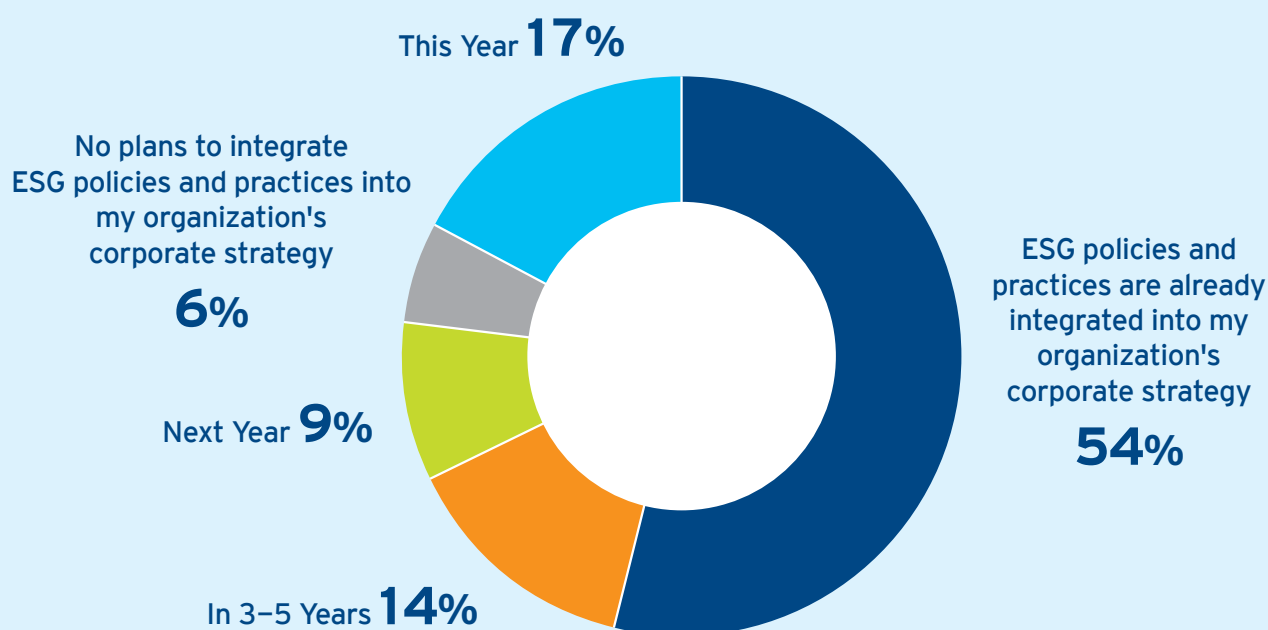


Exhibit 1: When is your organization planning to integrate ESG policies and practices into its corporate strategy? (n=219)

¹ The online survey was in the field during the first quarter of 2021 and garnered 259 responses from Citi's institutional clients across Asia Pacific. These respondents come from a range of sectors with the top three being Financial Institutions (23%), Industrials (20%) and Energy (14%).

² Of these respondents, majority hold senior level positions in their firms – 16% are Chairmen, Presidents or CEOs, 24% are other C-Suite Executives, 26% are Managing Directors and Directors and 28% are Senior Vice Presidents and Vice Presidents.

³ Morningstar, *Sustainability Atlas: Measuring the ESG Practices of Countries Around the World*, 11 May 2020

Previously, incorporating the ESG agenda into overall corporate strategy may have meant “checking the box” for some firms. But, with COVID-19 presenting new challenges, aggravating existing problems and offering a glimpse of an alternative future if we continue to keep a lid on carbon emissions levels, environmental, societal and governance issues that are previously on the back burner are now in the spotlight (Exhibit 2). Not surprisingly, therefore, over two-thirds of the respondents attributed COVID-19 as a driving force of ESG policies and practices in their firms (Exhibit 3).

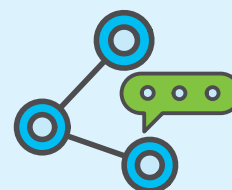
The E in ESG



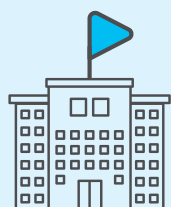
An analysis by researchers at Future Earth's Global Carbon Project found that there has been an unintended “upside” from the pandemic — carbon emissions (CO₂) fell by a record 7% in 2020 on the back of lockdowns and travel restrictions. While the fall is considerably larger than previous significant decreases, the CO₂ emissions produced in 2021 is still greater than can be absorbed by the Earth's natural carbon sinks including oceans, soils and forests. To keep global warming to within 1.5 degrees C above pre-industrial levels, which is a key goal of the Paris Climate Agreement, emissions have to continue to fall significantly this decade⁴.

A recent joint report from UNICEF and the International Telecommunication Union (ITU) revealed that two-thirds of the world's school-age children do not have Internet connection in their homes. With millions of students having to rely on virtual learning during lockdowns, which is still taking place in many parts of the world, the digital divide has further exacerbated inequalities in our communities⁵ and heightened the urgent need to ensure students have access to e-learning. A global McKinsey study also found that diverse groups of employees such as women, people of color and the LGBTQ+ community are struggling the most with issues such as mental health, isolation, career progression and balancing responsibilities at home during COVID-19⁶.

The S in ESG



The G in ESG



The current environment that we are in began as a health crisis but it has since plunged many parts of the world into deep economic contraction. In the wake of the pandemic, society's expectations of corporate governance have raised, and different stakeholders are renewing their calls for corporates to step up, pay more attention to societal issues and take an active role to address them⁷.

Exhibit 2: Existing environmental, societal and governance issues amplified by COVID-19

⁴ The Straits Times, Carbon emissions fell record 7 per cent in 2020: Study, 11 Dec 2020

⁵ UNICEF, Two thirds of the world's school-age children have no internet access at home, new UNICEF-ITU report says, 30 Nov 2020

⁶ McKinsey & Company, Diverse employees are struggling the most during COVID-19 – here's how companies can respond, 17 Nov 2020

⁷ Harvard Business Review, Covid-19 Is Rewriting the Rules of Corporate Governance, 6 Oct 2020

When asked to rate the three central dimensions (E which represents Environmental Factors, S which represents Social Responsibility and G which represents Governance) driving adoption of ESG policies and practices in their organizations on a scale from 0 to 10⁸, there appears to be no significant differences between E, S & G when the mean scores were computed for all respondents in the region, suggesting that all three factors are approximately of equal importance to the respondents in Asia Pacific.

But what's clear is the drivers behind the adoption of overall ESG standards. With the global community getting more serious about corporate accountability beyond the bottom line, companies are increasingly expected to integrate ESG into their broader business strategy. The positive impact that ESG has on a firm's relationship with its stakeholders is also a force to be reckoned with (Exhibit 4).

Exhibit 3: ESG policies and practices have gained greater importance in my organization as a result of COVID-19 (n=259)

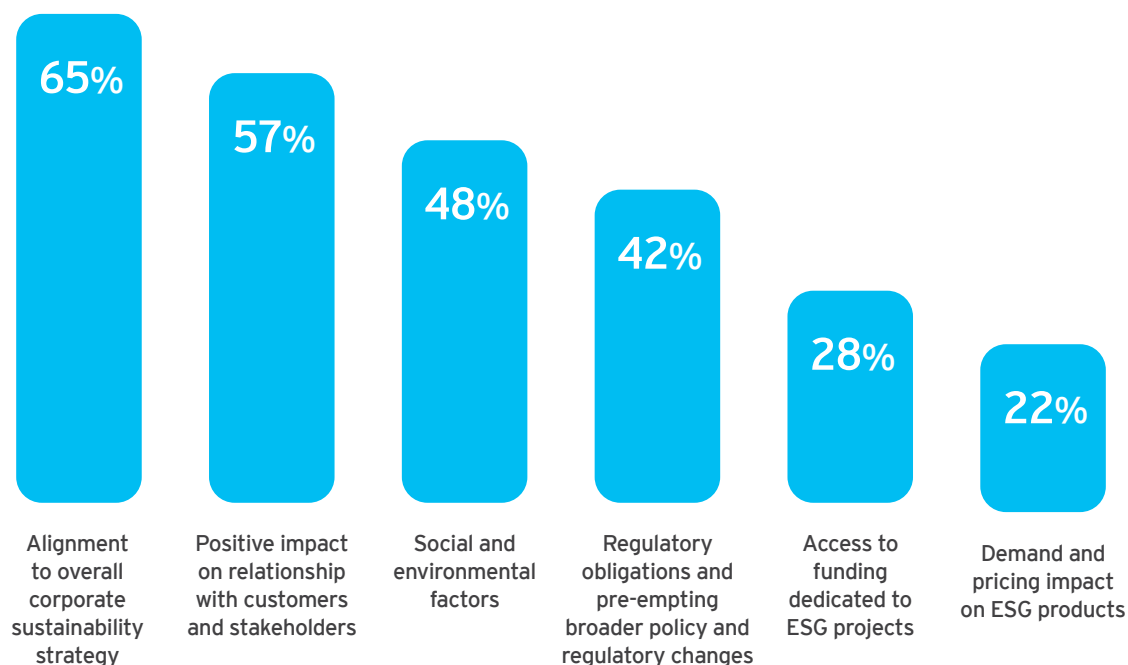
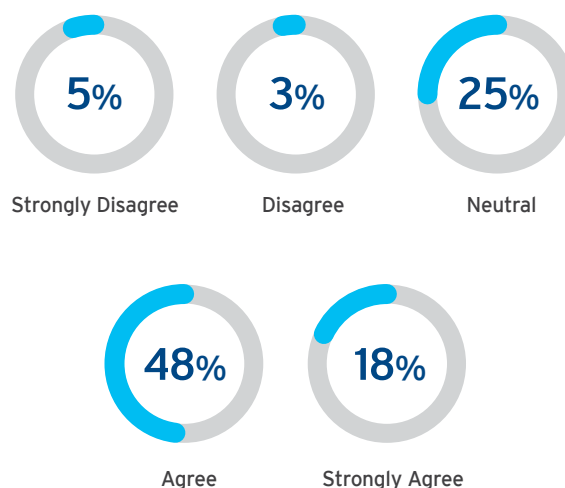


Exhibit 4: Why is your organization adhering / wants to adhere to ESG standards? (n=226)

⁸ Those who rated 0 for the factor did not have their score included in the computing of the mean score.

The survey also asked respondents to rank the top three stakeholders who are most vocal in advocating ESG policies and practices in their organizations; 33% ranked Governments/Regulators in the top position (Exhibit 5).

In the last few years, governments and regulators across the world have been taking active steps to rebuild their economies in a more sustainable way⁹. To name a few that are closer to home, the ASEAN Comprehensive Framework, which was adapted at the 37th ASEAN Summit held in November 2020, points to a clear focus on rebuilding better using ESG principles as a key metric, with the aim of developing resilience and sustainability across the region. The Asian Infrastructure Investment Bank (AIIB) was established in 2016 to foster sustainable economic development, create wealth, and improve infrastructure connectivity in Asia by investing in infrastructure and other productive sectors.

The Chinese Government recently declared a carbon-neutral China by 2060 at the United Nations

General Assembly¹⁰. This came after the People's Bank of China (PBOC) issued the country's financial industry standardization plan, which sought to develop standards in financial institutions for green products, information disclosures and green credit ratings¹¹.

Key financial hubs in Asia have also introduced initiatives to drive the transition to a more sustainable economy – The Hong Kong Monetary Authority (HKMA) has also adopted a three-phase approach to promote green and sustainable banking¹². And in Singapore, earlier this year, the government launched the Singapore Green Plan, setting out a road map towards sustainable development, a green economy and net zero emissions. The Monetary Authority of Singapore (MAS) also recently released its inaugural sustainability report, laying out plans to strengthen the resilience of its financial sector to environmental risks, develop a vibrant green finance ecosystem, build a climate-resilient reserves portfolio and incorporate sustainable practices in its organization¹³.

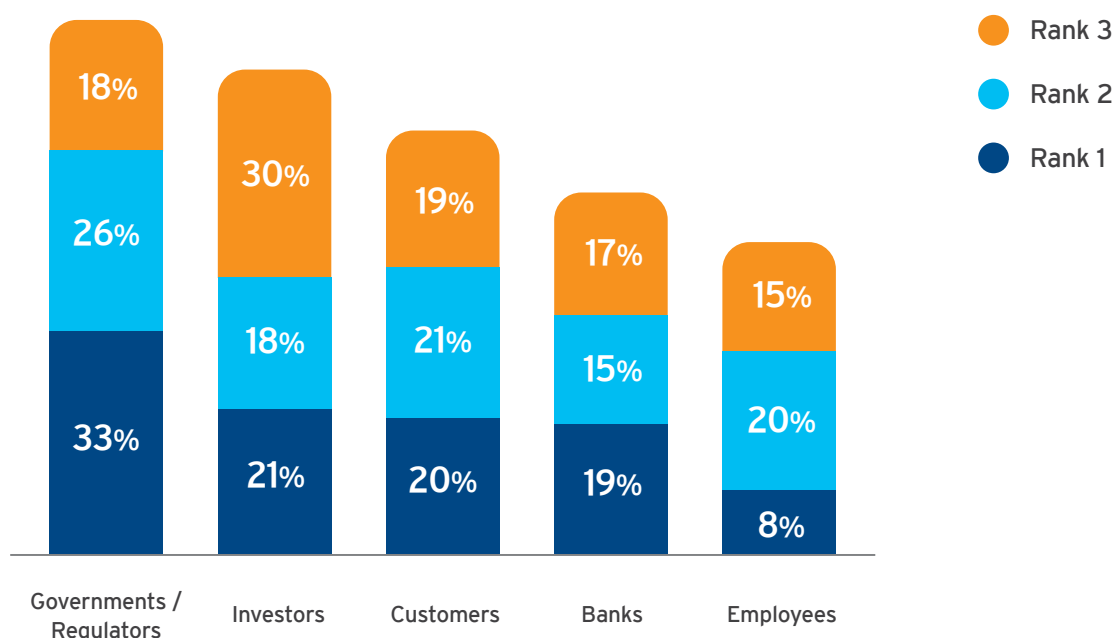


Exhibit 5: Please rank your top 3 stakeholders who are most vocal in advocating ESG policies and practices in your organization (n=220)

⁹ KPMG, *The politics of ESG: Where are governments heading?*, 26 May 2020

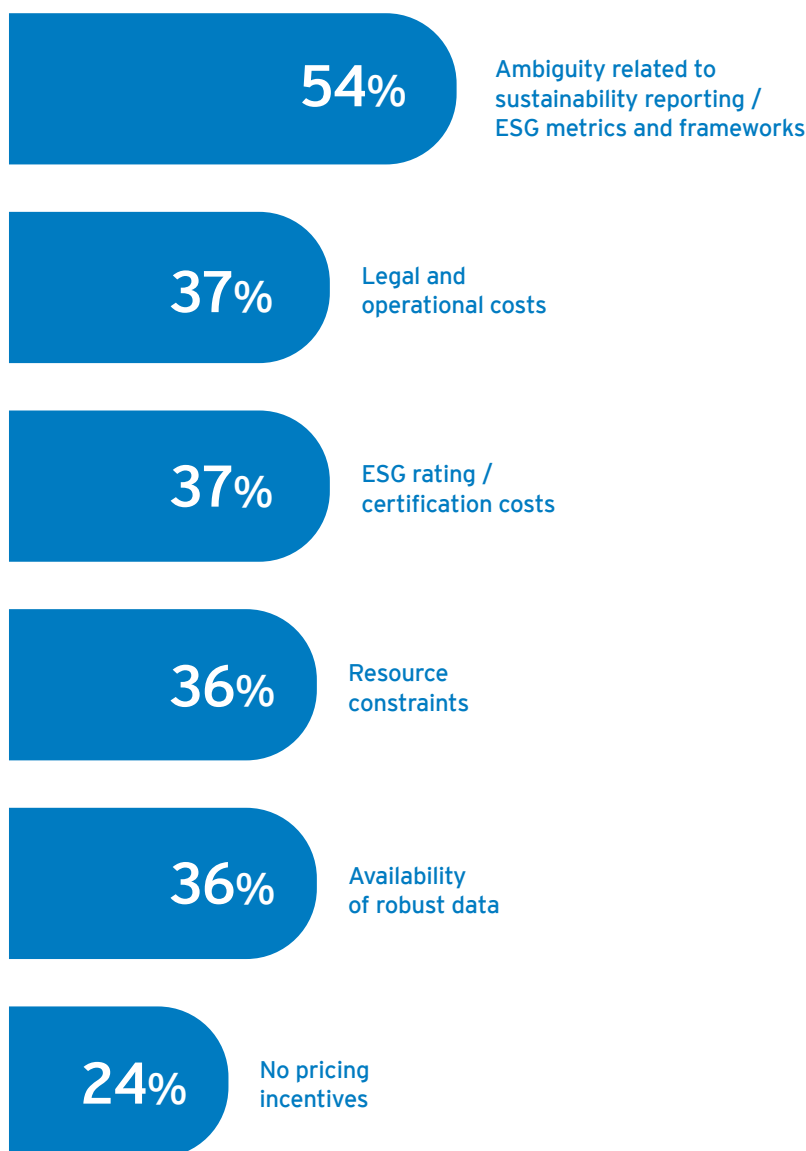
¹⁰ MERICS, *"Greening" China: An analysis of Beijing's sustainable development strategies*, 7 Jan 2021

¹¹ Asian Infrastructure Investment Bank, *Who we are*

¹² Hong Kong Monetary Authority, *Green and Sustainable Banking*, 23 Mar 2021

¹³ The Monetary Authority of Singapore, *Sustainability Report 2020/2021*, 9 June 2021

Exhibit 6: Challenges that organizations face when complying with ESG standards (n=187)



Complying with ESG standards is not without challenges. While legal and operation costs and the costs of the ESG certification process emerge as key challenges, the greatest impediment that organizations face in ESG compliance is the ambiguous nature of ESG metrics and frameworks (Exhibit 6).

So far, no global data standards and regulations have been defined¹⁴. Attempts at standardizing the list of ESG standards include the materiality map developed by the Sustainable Accounting Standard Board (SASB), and the reporting standards created by the Global Reporting Initiative (GRI). But the lack of consistency can be confusing and a key barrier for more widespread ESG adoption.

MSCI Research, which analyzed data on the cost of capital between a four-year period from 2015 to 2019, found that on average, companies with higher ESG scores experienced lower costs of capital, equity and debt compared to companies with poor ESG scores in both developed and emerging markets¹⁵.

On the back of this trend, investors' demand in the market for ESG financing solutions has grown rapidly in recent years. Currently, there is US\$1.3 trillion in outstanding sustainable debt, which includes green, social, sustainability and sustainability-linked bonds. S&P forecasts that issuance of such bonds will increase to US\$700 billion in 2021, up from just over US\$530 billion in 2020. While the majority of this new issuance is expected to come from Europe and North America, Asia will have an increasingly larger slice of this market going forward as it looks to promote sustainable finance in the region's capital markets¹⁶.

¹⁴ OECD, *Sustainable and Resilient Finance: OECD Business and Finance Outlook 2020*, 2020

¹⁵ MSCI Research, *ESG and the cost of capital*, 25 Feb 2020

¹⁶ S&P Global Ratings, *Sustainable Debt Markets Surge As Social And Transition Financing Take Root*, 27 Jan 2021

There are several considerations when deciding on the sustainable and green finance instrument to help achieve a firm's strategic objective. In essence, these instruments are structured like their vanilla counterparts but are tied to sustainable performance targets or specific investments.

In this study, green bonds came on top at 22% (Exhibit 7) while most respondents (42%) chose ESG-linked working capital financing as one of their top three choices, when asked to rank the top three sustainable and green finance instruments that they are interested in or are exploring.

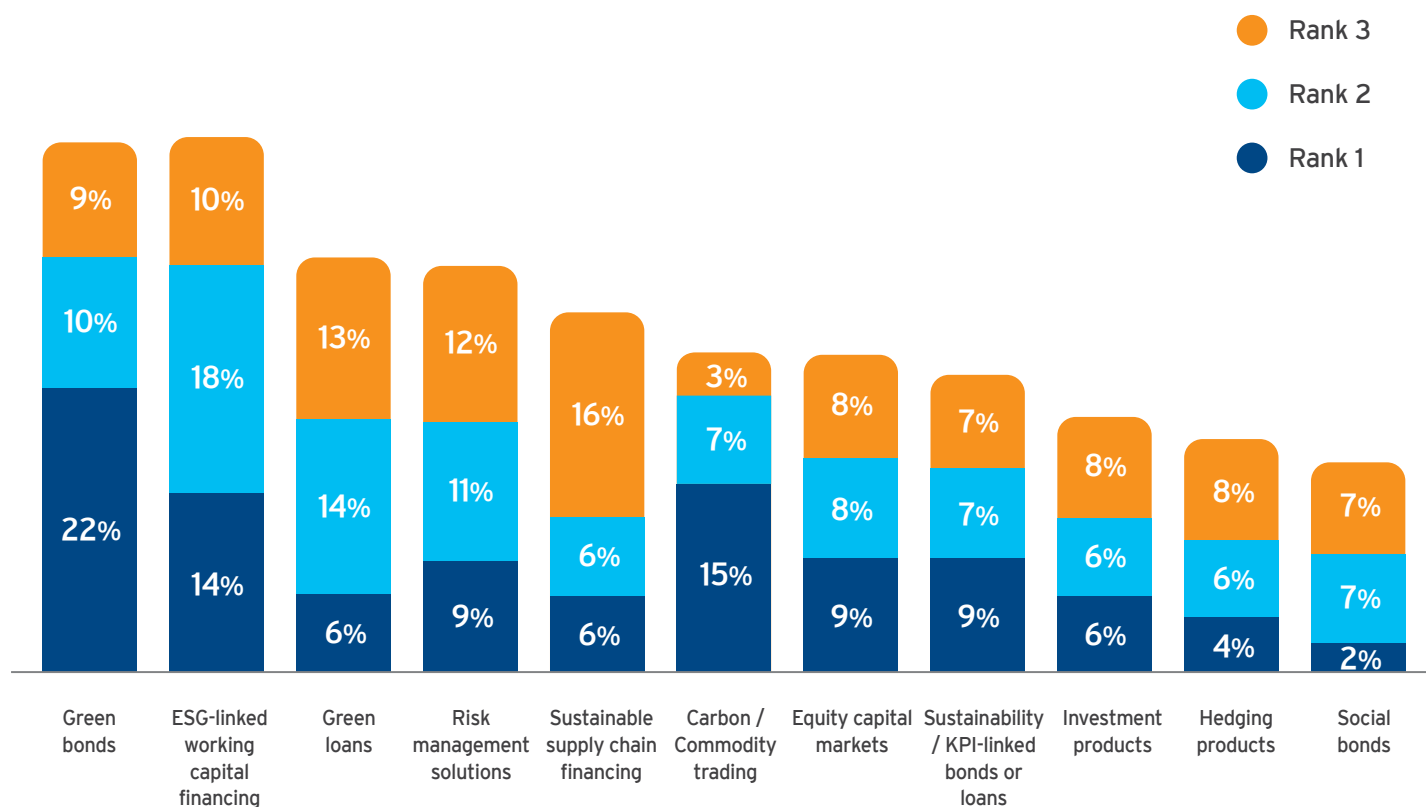


Exhibit 7: Top 3 sustainable and green finance instruments that companies are interested in or exploring (n=211)

In 2020, ESG funds captured a record US\$51.1 billion of net new money from investors, which was more than double the prior year¹⁷. The momentum is set to continue with increasing focus on ESG by corporates, and higher expectations and demands from stakeholders of firms to be accountable across the entire E, S and G spectrum.

¹⁷ CNBC, [Money invested in ESG funds more than doubles in a year](#), 11 Feb 2021



Towards Net Zero

Rapid economic growth and urbanization in emerging Asia is a growing source of greenhouse gas (GHG) emissions. Today, as a region, Asia is the biggest contributor to increases in global fossil fuel consumption and fossil CO2 emissions.



Recently announced carbon-neutral timelines underscore the determination of governments in Asia to tackle climate change

These issues are internationally addressed in the framework of the United Nations Framework Convention on Climate Change (UNFCCC), under which countries are developing national emissions inventories and proposing or implementing policies to mitigate GHG emissions. In November 2020, following China and Japan, South Korea became the third major Asian economy to announce carbon-neutral timetables. Hong Kong, too, committed to being carbon neutral by 2050. And Singapore aims to halve its 2030 peak greenhouse gas emissions by 2050, and to achieve net zero emissions as soon as viable in the second half of the century. These represent a major milestone in the global fight against climate change and underscore the determination of Governments in Asia to tackle climate change.

The experience in a number of countries has shown that environmentally-friendly growth models based on renewable energy can contribute to economic development while protecting the environment at the same time – there need not be a choice between the two. Asian emerging economies are also moving towards this model, gradually developing into the most active regions in the world for renewable energy investment.

The COVID-19 pandemic has been noteworthy for so many negative things, but there was one temporary bright spot – global carbon emissions declined. With the sudden halt in industrial production and transportation coming to a standstill, cities saw noticeable declines in air pollution and the atmosphere benefitted from a decline in greenhouse gas emissions. Although these benefits were temporary and reversed once economic activity started to ramp up, it was encouraging to see that declines in emissions can actually happen.

– Citi Global Insights

Obviously shutting down major sectors of the economy for periods of time isn't the long-term answer to reducing emissions. But seeing evidence that lowering emissions can lead to a decline in greenhouse gas concentrations – whether the decline is big or small – is important and has helped changed attitudes toward making the effort.

Government focus on climate action is actually accelerating with stronger climate policies and net zero emissions targets being put in place. This increased focus on climate is occurring in parallel with a rise in corporate and individual focus. Stimulus packages in many countries are focusing on green infrastructure and technology investment that help the economy transition away from fossil fuels.

Progress towards a more sustainable global economy is already being made in a number of sectors, through actions such as the promotion of electric vehicles and recycling schemes, as well as an increased focus on energy efficiency in buildings. But not all sectors are equal in terms of how easy it is to transitioning to a low-carbon business model. Certain sectors are harder to abate than others and it will take breakthroughs in technology investment and time to lower emissions.

Transport (road freight, aviation and shipping) and industry (cement and steel) need to be focused on to successfully meet net zero emission commitments. Collectively, these sectors account for 25% of today's global carbon emissions, but have the potential to rise by 50% through 2050 given growth expectations¹⁸.

Although demand-side solutions can help, they're not sufficient to drive emissions levels down towards zero. Instead, supply-side solutions need to be incorporated. Three such solutions – hydrogen, bioenergy, and carbon capture, utilization & storage (CCUS) can be the keys to 'cracking the carbon nut' in hard-to-abate sectors. There is a cost premium associated with each of these solutions, but as technology advances and supply is scaled up, costs should fall and demand should increase.

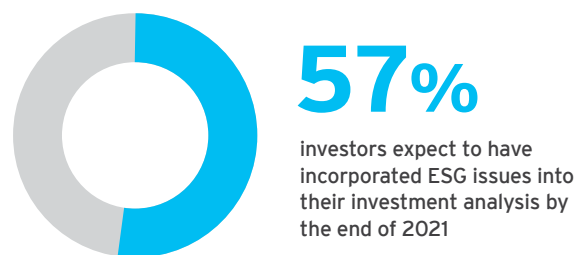
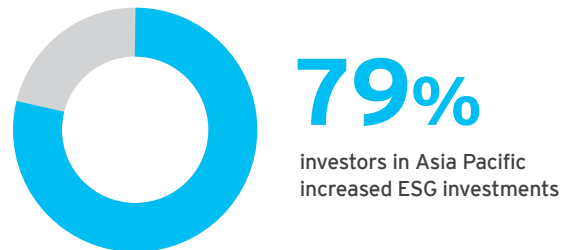
Identifying hard-to-abate sectors and the potential solutions to drive down emissions should help rally investment and accelerate capital deployment to fund the net zero transition. This won't be easy, but it is doable – especially with coordinated efforts between governments, corporates and investors.



¹⁸ Citi Global Perspectives and Solutions, [Hard-to-Abate Sectors and Emissions](#), May 2021

What This Means for Companies in Asia

Sustainability is now firmly established as a high priority issue for investors. Around 79% of investors in Asia Pacific increased ESG investments "significantly" or "moderately" in response to COVID-19, according to the MSCI 2021 Global Institutional Investor survey. Meanwhile, 57% of investors in the region expect to have incorporated ESG issues into their investment analysis and decision-making processes "completely" or "to a large extent" by the end of 2021. These numbers were backed by our client survey.



On the issuance side, China moved past the US in global green bond issuance in the first quarter of 2021, according to Dealogic data. We continue to see sustained demand from our clients for renewable energy financing and banking solutions. Many of the products available today – such as green and sustainability bonds and loans, hedging for renewable energy projects and lending linked to ESG performance – were relatively new or nonexistent a few years ago. We expect the development and interest in these sustainable financial products, which tie financial terms to sustainability performance, to continue to grow.

We are constantly adapting and expanding our ESG-linked capabilities and solutions to meet our clients' evolving sustainability focused requirements. We will also continue to collaborate with governments, NGOs, academic institutions and our financial sector peers in Asia to tackle climate change and work together towards a more sustainable future.

On top of realizing that all this is doable, many countries and business are coming to the realization that we also don't really have a choice. Many hard-to-abate sectors have long lived capital assets — steel and cement plants can last for more than 40 years, while ships and planes stay in operation for 25-30 years.

This means that any new plants/assets being built today or in the coming years should ensure they are able to easily move to low-carbon fuels or can be retrofitted with alternative technologies such as carbon capture utilization and storage (CCUS), or risk danger of becoming stranded assets.

Reaching net zero is a must to avoid the negative impacts from climate change. The momentum is there — governments and companies need to embrace this change, and invest in technologies to enable the transition to a net zero economy. This will generate new jobs, new possibilities, and new income, versus being left with a business or an economy that conflicts with a net zero world.



A TIME FOR ACTION

Opportunities for Asia
to Further a More
Sustainable Future

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