

In collaboration with PwC China



A Leapfrog Moment for China in ESG Reporting

WHITE PAPER

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Foreword



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During the World Economic Forum's first virtual Davos Agenda in January 2021, more than 60 business leaders, including members of the Forum and its International Business Council (IBC), committed to a set of Stakeholder Capitalism Metrics – universal, comparable disclosures focused on people, planet, prosperity and governance on which companies can report, regardless of industry or region. These common metrics were developed in collaboration with the “big four” global accounting firms to identify a set of universal, material ESG metrics and recommended disclosures that could be reflected in the mainstream annual reports of companies on a consistent basis. Following a six-month open consultation process, the metrics were first published by the Forum in September 2020 in the white paper [Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation](#).

Recognizing the importance of this work, the group of chief executive officers and chairpersons convened by the Forum in the China Action Group (CAG) asked the Forum to lead an exploration of the state of ESG understanding, thinking and preparedness in China to benchmark how developments in China align with global trends and best practices. This white paper helps to outline how companies in China have been rapidly developing their understanding of ESG concepts and frameworks and have built capacity to capture and report their ESG performance. In addition, it assesses the landscape and main drivers for ESG reporting in China and highlights several characteristics that are important for local and global stakeholders to recognize.

More importantly, this white paper provides a call to action for business leaders in China to further enhance their ESG reporting capabilities and

communicate their non-financial performance more effectively to domestic and global stakeholders.

The findings presented in this paper reflect discussions at three Forum-convened workshops during the autumn of 2020, including a workshop held at the Forum's China Business Roundtable, expert interviews and desk research. Experts representing more than 30 businesses in China participated in these activities. Building on its support for the global common metrics work and reflecting its expertise in China, PwC collaborated with the Forum in the preparation of workshops and interviews and in putting together this publication.

China has been leading the economic rebuilding needed as a result of COVID-19, and the impact of decisions and the strategic direction taken by its business leaders will be felt not only domestically but also globally. Policy-makers, regulators, investors and other stakeholders will increasingly demand that corporates disclose their non-financial performance and footprint. China's commitment to become carbon neutral by 2060 will only accelerate these dynamics. During the Forum-led discussions, participants highlighted, however, that business leaders should further develop the Chinese ESG ecosystem beyond stakeholder expectations or regulatory requirements. They saw an opportunity for a leapfrog moment for ESG value creation and reporting in China.

The Forum and PwC are delighted to work with all businesses participating in this initiative and encourage Chinese business leaders to embrace this opportunity for progress. We hope this white paper establishes a starting position from which all stakeholders can jointly embark and we look forward to your thoughts on this publication. And, of course, we invite more business leaders to become part of this initiative.

Letter from Chinese business leaders

Business leaders everywhere understand the importance of measuring corporate performance not merely in the form of financial statements but equally by examining and reporting on environmental, social and governance (ESG) metrics. The COVID-19 pandemic has highlighted the central role businesses play in creating more prosperous, fulfilled societies and a more sustainable relationship with our planet.

Thoughtful and sophisticated metrics help businesses measure and demonstrate their contributions. We therefore applaud the work that the World Economic Forum has facilitated globally on advancing common metrics and consistent reporting of sustainable value creation. As Chinese business leaders, we are aligned with the global effort put forward by the Forum.

We also understand the need to broaden the base of business leaders committed to advancing the sophistication and application of ESG reporting standards and believe that China will play an important role in this process. This is why the

China Action Group, a community of Chinese CEOs and chairpersons who are engaged in the activities of the World Economic Forum, asked the Forum to explore the state of ESG understanding, thinking and application in China. This report provides an important stocktake, highlighting promising opportunities and the remaining challenges.

We call on all of our peers in China to study this publication and join us in becoming Chinese ESG champions. As a global community, we will not make significant progress towards realizing the Sustainable Development Goals (SDGs) without meaningful contributions from Chinese business.

We also ask the Forum to continue working with the China Action Group to further develop the China ESG champions community and, over the coming months, to develop a roadmap that guides Chinese businesses in their ESG journey.

Together, we have a compelling story to tell. Let us embrace this opportunity.

China Action Group

(members are listed in the Acknowledgments)

1

Introduction and executive summary

Why is ESG reporting important in China?

Driving one of the world's largest and most dynamic economies, China's enterprises have a leading role to play in delivering environmentally friendly and socially responsible prosperity, both domestically and around the world. Quality reporting of corporate environmental, social and governance (ESG) metrics can guide capital flows, help regulators make timely policy decisions and enable customers to make informed supply-chain management decisions that foster sustainable growth.

China's ambition to reach peak carbon before 2030 and achieve carbon neutrality by 2060 will require companies to act now to transform, to various extents, to a lower-carbon business model. ESG reporting, including making emissions data visible and comparable, is a key ingredient in this transition.



Insights from the ESG journey in China

We have highlighted six key insights about the ESG journey for Chinese companies. These arose from discussions with ESG practitioners from more than 30 companies across various industry sectors in workshops convened by the World Economic Forum in China over the past six months.

1. Board-level commitment is a primary and indispensable key to a company's effective reporting and management of ESG issues.
2. High-growth companies must graduate from a focus on near-term revenue to a purpose-driven strategy that considers a wide range of stakeholders and their interests. Investors are increasingly a driver of this progression.
3. The integration of ESG factors into business strategy formulation and the management of ESG risks and opportunities provide more meaningful information for investors than the traditional corporate social responsibility (CSR) approach.

4. Successful companies focus their ESG efforts on the issues that are most relevant to their business as identified in their materiality assessment.
5. As Chinese companies ramp up their ESG reporting, they often find a shortage of ESG professionals and a lack of ESG knowledge across their business units and supply chains.
6. There are increased demands for supply-chain sustainability practices and disclosure, particularly from global brands.

We have provided examples of practical steps for companies at various stages of their ESG journeys, covering strategy, target setting, transformation, risk and oversight, performance measurement and reporting.

To provide illustrations from real-life journeys, there are Q&As from five different companies about their approaches to ESG reporting and its integration into their business operations.

What is driving corporate ESG reporting in China?

Experts participating in the Forum-facilitated China ESG workshops highlighted that in mainland China and Hong Kong regulators and investors are the main drivers of corporate ESG reporting, while government climate policy goals are likely to further increase its relevance.

Regulators: Hong Kong's stock exchange (HKEX) has required listed companies to issue ESG reports since 2016. In response to increasing demand for ESG information from the investor community, the disclosure requirements were upgraded in July 2020 to provide visibility of investment-relevant information such as the board's involvement, integration of ESG into business strategies and key decisions, climate-related risk

management, environmental target setting and supply-chain management. Market participants expect that regulators will issue new ESG reporting requirements for companies listed in Shanghai and Shenzhen.

Investors: Globally, assets under management (AUM) by United Nations Principles for Responsible Investment (PRI) signatories surpassed \$100 trillion (figures listed are in USD unless otherwise specified) in 2020, an increase of 75% over 2015.¹ The PRI has provided a voluntary framework since 2006 that investors can use to incorporate ESG issues into their decision-making and ownership practices. Large international asset managers, most of which are PRI signatories, have already stepped up their ESG engagement with China's Hong Kong and New York-listed large-cap companies. They are now increasing their holdings of mid- and small-cap A-share companies and are factoring ESG issues into their investment decisions. At the same time, a growing number of China-based asset owners and asset managers are committing to the PRI, which redesigned and, in November 2020, released a new reporting framework to better capture the ESG practices of its signatories.

Policy-makers: China's 2060 carbon neutral goal will intensify the focus on climate-related corporate reporting and transformation. Developing a sound ESG reporting system that provides comparable emission data and climate-related practices would set a strong foundation for China's journey towards a low-carbon economy.

Illustrative examples of ESG-related issues

Environment	Social	Governance
<ul style="list-style-type: none"> – Climate change – Greenhouse gas (GHG) emissions – Waste and pollution – Resource depletion (including water) – Land use and biodiversity 	<ul style="list-style-type: none"> – Labour standards – Diversity and inclusion – Health and safety – Data privacy – Product safety and responsibility – Learning and development 	<ul style="list-style-type: none"> – Board diversity – Bribery and corruption – Executive compensation – Shareholder rights – Business ethics

Source: PwC

Sylvia Ng, General Manager, Corporate Strategy, MTR

What are the drivers behind MTR's ESG approach?

The key driver is our board's commitment to ESG, and its belief that ESG performance is vital to the overall sustainability of our business. The commitment to ESG flows through to the Executive Committee members and senior management teams, and is an inherent aspect of our overall management approach. During the past year, our board has been reviewing MTR's vision and strategy, and setting new ESG priorities and targets for the next 10–15 years.

With more than 5 million average daily passengers in Hong Kong and about 7 million in other cities, not to mention those who use the many properties that we manage, MTR has frequent interactions with most of our stakeholder groups.

ESG queries from investors have noticeably increased in the past year or two, and the government's ownership stake fosters a strong public-service obligation.

What role do environmental considerations play in MTR's strategy?

It has long been MTR's discipline to take full account of environmental impact when embarking on projects. Climate change is a major factor in our overall business strategy.

In fact, Hong Kong has set high environmental requirements. Hong Kong's Climate Action Plan 2030+, published in 2017, identified our railway system as the backbone of its low-carbon public transport system. The extension of MTR's rail services will be vital to achieving Hong Kong's recently announced 2050 carbon neutrality goal while supporting the city's continued growth and development.

MTR has adopted a three-pronged climate strategy across our operations. First, we serve as a low-carbon public transport network. Second, we are implementing carbon reduction measures. Third, we are adapting and building resilience to climate change.

Our existing energy reduction targets are expiring in 2020. We are currently developing carbon reduction targets and a roadmap for 2030 and beyond. MTR will conduct climate-related scenario analysis as recommended by the Task Force on Climate-Related Financial Disclosures (TCFD) to better understand the potential implications of climate-related risks and opportunities. We have developed risk mitigation strategies for scenarios involving increasing temperatures as well as stronger typhoons and heavier rainfall episodes.

We are also increasing our efforts to raise awareness of environmental issues and change behaviours through campaigns using the MTR Mobile app, ad spaces in our platforms and properties, as well as other channels.

What are MTR's social priorities?

Our most fundamental priority is the safety of our passengers, staff and the communities we serve. Our board has set social inclusion, as well as advancement and opportunity, as priorities going forward. MTR is committed to promoting equal opportunities and offering a supportive workplace free from discrimination based on gender, sexual orientation, disability, age, race or ethnicity. MTR also places great emphasis on training opportunities for our employees.

As Hong Kong faced economic challenges from COVID-19, MTR helped to support the community by offering discounted fares for travellers, as well as rental concessions for our tenants.

How does MTR approach ESG reporting?

MTR has been publishing sustainability reports every year since our initial public offering (IPO) in Hong Kong 20 years ago. Our reports fulfil not only the disclosure requirements of the HKEX ESG Reporting Guide but also those of the Global Reporting Initiative (GRI) Standards: core option and the TCFD recommendations covering governance, strategy, risk management, and metrics and targets. We also disclose climate-related information through our publicly available CDP response.

Do you see tangible benefits from MTR's ESG efforts?

In addition to reducing ESG-related risks, we see benefits in the capital markets. Our AAA ESG rating from MSCI is the highest in our global industry sector. Our investor base is expanded by MTR's inclusion in a number of respected sustainability indices (e.g. Dow Jones Sustainability Indices, FTSE4Good).

MTR is a green finance pioneer in Hong Kong. We published our Green Bond Framework and issued our first Green Bond in 2016. We also included other forms of green financing, e.g. bank loans, when we published our Green Finance Framework in 2018. In total, we have raised HKD16.8 billion from green finance arrangements to fund projects that improve energy efficiency, enhance railway services and conserve nature.

In August 2020, MTR issued a \$1.2 billion* green bond, the largest ever single tranche Green Bond for corporates in Asia Pacific. With strong

*Figures listed are in USD.

demand from institutional and green investors in Hong Kong, Asia and Europe, the issuance was oversubscribed by 200%, allowing the final issue price to be tightened by 42 basis points from initial guidance.

We also realize energy cost savings from various energy efficiency and renewable energy initiatives. For example, we have achieved significant reductions on our rail operations' energy consumption per passenger-km, as well as energy consumed by chillers in our stations. We are increasing our renewable energy generation with new solar panel installations.

How is your organization set up for your ESG efforts?

Our chairman leads the board-level Corporate Responsibility Committee, which sets the strategic direction on ESG issues and includes the chief executive officer and corporate affairs director. The corporate affairs director chairs the Corporate

Responsibility Steering Committee, which drives implementation of ESG-related initiatives across all of the MTR divisions. The Transformation Office acts as the project management office (PMO) for our various initiatives.

Our head of sustainability and senior manager – corporate responsibility both report to the corporate affairs director. They are responsible for implementing corporate-wide ESG initiatives, with support from across the organization.

The head of sustainability is responsible for developing MTR's climate change strategy, reviewing climate risk mitigation measures and coordinating among business units to ensure activities are consistent with that strategy. She is responsible for updating and reporting the climate change risks map to the enterprise risk committee annually. She also manages the disclosure of climate-related issues such as CDP and the TCFD recommendations.

2

Insights from the ESG journey in China

Corporate ESG reporting in China is at an inflection point, with a surge of activity from regulators, exchanges, investors and corporate leaders. Companies such as MTR and Ping An are already seen as leaders in ESG reporting, while many others are just beginning their journey.

Below are six key insights from discussions among China-based ESG practitioners and proponents in workshops convened by the World Economic Forum, as well as a roadmap with practical steps for corporate issuers.



1 Board-level commitment

Every company engaged in the Forum-facilitated expert discussions identified board-level commitment as the primary and indispensable key to ESG success. Whether the initial motivation comes from personal convictions, investor expectations, regulatory requirements or a vision for long-term value creation, this is usually the first meaningful step on the ESG journey. Once they have decided to make ESG a top priority, company leadership must then communicate their commitment to all levels of their organization,

and assign resources and accountability for ESG performance and reporting.

The board must take responsibility for setting strategy and integrating ESG into the business plan, and needs a process to identify key risks and take appropriate mitigation steps. An ESG or sustainability committee can oversee issues such as labour practices, anti-corruption, climate risks and decarbonization, but the board must maintain oversight and provide guidance.²

2 Long-term growth and stakeholder interests

For companies that have rapidly grown from start-ups, the ESG journey often requires graduating from a founder-driven focus on quarterly revenue growth to a purpose-driven strategy that considers a wide range of stakeholders and their interests. Investors are increasingly a key driver of this progression.

This might entail short-term costs such as hiring ESG professionals or setting up internal ESG key performance indicator (KPI) measurement and reporting systems. But the long-term benefits will come through areas such as improved risk management, identification of ESG-related opportunities, enhanced brand value for consumer-related businesses, lower cost of capital (via

ESG-index inclusion or green financing) or efficiency gains resulting from reduced emissions, waste or resource consumption. In addition, a reputation for sustainability and social responsibility can attract and retain talent from a generation of employees who prefer working at organizations whose values are aligned with their own.

The concept of stakeholder capitalism is covered in more detail in the World Economic Forum white paper [Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation](#). This is part of a broader movement on converging metrics that will continue to evolve.³

3 Beyond traditional CSR

Many companies developed their CSR activities during the past decade, making a positive impact on their communities through volunteer programmes or by funding and organizing charitable foundations. Efforts were focused on community education, poverty alleviation, environmental protection and other important issues. CSR activities are not necessarily integrated into a company's core business or growth strategy and are often managed by a stand-alone department such as corporate communications.

While these efforts are unequivocally good, the evolution into today's ESG approach involves the full integration of environmental, social and governance considerations into risk analysis and important business decisions. Examples include integrating labour practices into supplier assessment or ensuring the data privacy and information security of consumers. The integration of ESG can help identify opportunities, as well. The ESG approach also provides investors with more complete information about the risks and sustainability of business models, enhancing capital allocation.

4 Materiality – the relevance of ESG to achieving strategic goals

When facing new ESG reporting requirements, some companies may take a compliance-driven, box-ticking approach. The result can be a report with statistics covering the full range of ESG metrics, including many that are not relevant to the activities of the business. Such reports bring little value to investors, the company or its wider community of stakeholders.

Companies can achieve better results by conducting materiality assessments and making strategic decisions to focus on the most relevant issues and setting out detailed plans and targets to incentivize performance and measure progress. According to researchers, companies that focus

on those ESG issues that are material to their business perform better than companies whose ESG efforts are spread out over both material and non-material issues.⁴

The HKEX provides a number of guidance materials to the market, such as “How to Prepare an ESG Report, a Step-by-Step Guide to ESG Reporting”, “Leadership Role and Accountability in ESG: Guide for Board and Directors” and “Making Inroads into Good Corporate Governance and ESG Management”.⁵ Companies can take a more granular approach by using other tools, such as the Sustainability Accounting Standards Board (SASB) Materiality Map @.

Materiality table from HKEX

	Consumer discretionary	Consumer staples	Healthcare	Energy	Financials	Industrials	Information technology	Materials	Properties and construction	Tele-communication	Utilities
A1 Emissions	●	●	●	●		●	●	●	●	●	●
A2 Use of resources	●	●	●	●		●	●	●	●	●	●
A3 Environment and natural resources	●	●		●		●		●	●		●
A4 Climate change		●	●	●	●	●		●	●	●	●
B1 Employment	●	●	●	●	●	●	●	●	●	●	●
B2 Health and safety	●	●	●	●		●	●	●	●		●
B3 Development and training			●		●		●	●		●	
B4 Labour standards	●	●	●	●	●	●	●	●	●	●	●
B5 Supply-chain management	●	●		●		●			●	●	●
B6 Product responsibility	●	●	●		●	●	●		●	●	●
B7 Anti-corruption	●	●	●	●	●	●	●	●	●	●	●
B8 Community investment			●	●	●	●			●		●

● Very likely to be material to issuers in the industry ● Likely to be material to issuers in the industry

Source: HKEX, How to Prepare an ESG Report, a Step-by-Step Guide to ESG Reporting

5 Capacity-building and coordination

As companies ramp up their ESG reporting to meet requirements from regulators and investors, a commonly cited challenge is a shortage of ESG professionals to drive the process, and lack of ESG knowledge across business units, subsidiaries and business partners. Most people are aware of concepts related to environment, diversity, inclusion or labour rights, but additional communication or training might be needed to manage the associated risks or expand

employees' understanding of ESG to include evolving issues of climate, data privacy etc.

Companies often hire ESG professionals into a group-level ESG project management office to coordinate across functions and set up data-collection and reporting systems. At the same time, these experts advise the board-level ESG or sustainability committee on strategy and risk management.

6 Sustainability in supply chains

There are increased demands for supply-chain sustainability practices and disclosure, particularly from global brands and European-based corporate customers. Manufacturing companies are under pressure to upgrade their sustainability practices

by, for example, following GRI Sustainability Reporting Standards, setting science-based carbon reduction targets or achieving a minimum sustainability rating (e.g. a Silver rating from EcoVadis).

Practical steps for corporates on the ESG journey

Quick wins	Near term	Longer term
Strategy		
<ul style="list-style-type: none"> – Review industry megatrends and peer performance – Identify opportunities created by ESG movement – Embed ESG into your vision and growth strategies 	<ul style="list-style-type: none"> – Assess the business and financial impacts of ESG movements on your company and your value chain – Conduct Task Force on Climate-Related Financial Disclosures (TCFD) scenario analysis of resilience to climate risks and opportunities across different time frames; disclose progress on an annual basis 	<ul style="list-style-type: none"> – Wind down and exit business practices and business lines with high ESG and climate risks – Deep-dive TCFD scenario analysis and quantification of financial impacts of climate change on your business; disclosure, at least annually, where relevant
Targets		
<ul style="list-style-type: none"> – Where carbon emissions are material, prioritize carbon target-setting through feasibility assessment of numeric targets 	<ul style="list-style-type: none"> – Make group-wide efforts for setting goals/targets across ESG indicators – Where carbon emissions are material, commit to set net-zero or science-based targets (e.g. drawing on Science Based Targets initiative)⁶ 	<ul style="list-style-type: none"> – Track achievements, revise for significant changes and ratchet up ambition where needed – Link management compensation to ESG goal/target achievements
Transformation		
<ul style="list-style-type: none"> – Develop a roadmap to accelerated growth and a sustainable business model 	<ul style="list-style-type: none"> – Take steps to transform business models and value chains – Engage employees, customers and suppliers to align with your ESG and climate strategy – Pilot solutions and better practices aligned with ESG and climate risks and opportunities 	<ul style="list-style-type: none"> – Scale ESG and climate solutions with proven traction towards the company's vision and growth strategies – Optimize market opportunities and be a market leader in low-carbon and climate-resilient products and services
Risk and oversight		
<ul style="list-style-type: none"> – Define accountability of committees and roles for ESG and climate – Identify material ESG issues to your business (e.g. drawing on materiality tools from HKEX or SASB) – Build understanding of key climate risks and opportunities following the TCFD framework 	<ul style="list-style-type: none"> – Ensure board oversight on ESG and climate-related issues, with ESG risks reviewed as part of enterprise-wide risk management programme – Set up processes to identify, assess and manage ESG and climate risks 	<ul style="list-style-type: none"> – Demonstrate board commitments with tangible responses to current and evolving ESG and climate issues – Monitor ESG and climate risks with quantitative measures, refine processes and mitigate risks on an ongoing basis
Performance measurement and reporting		
<ul style="list-style-type: none"> – Set out reporting boundaries of your organization aligned with material ESG and climate risks using ESG framework guidance (e.g. GRI) – Design ESG scorecard to monitor performance and initiatives and align with rating agency expectations 	<ul style="list-style-type: none"> – Engage with rating agencies, e.g. respond to ratings questionnaires – Integrate ESG performance into regular stakeholder communications such as investor and analyst updates – Obtain third-party assurance over ESG data (ISEA 3000) 	<ul style="list-style-type: none"> – Track progress against strategy and roadmap, course correct as needed – Report against World Economic Forum's Measuring Stakeholder Capitalism core and expanded metrics where relevant

Source: PwC

Richard Sheng, Secretary of Board of Directors and Brand Director, Ping An Insurance Group

What have been the main drivers behind Ping An's ESG efforts?

The first driver is balancing the interests of all stakeholders, including employees, the environment, society and shareholders. The second is maintaining the long-term sustainable development of the group, as good corporate governance and management underpin sustainable, long-term value creation of an organization. The third driver is the increasingly stringent regulatory requirements and growing investor demands related to ESG.

What have been the key stages of your company's ESG journey so far?

Our ESG and sustainable development path can be divided into three 10-year periods:

The first period focused on building a corporate governance and management system to international standards, creating a solid foundation for our long-term development. The second period focused on fulfilling our social responsibilities and contribution to our country and society, including non-profit education, Red Cross activities and disaster relief activities.

During the third period, especially the past three years, clearer ESG requirements have emerged from the international and domestic markets. Ping An has promoted ESG-centred sustainable development and established a suitable organizational structure, policy system and technology platform. We have now begun establishing technology-enabled ESG standards and tools for other Chinese companies.

In 2021, Ping An is committed to supporting China's strategy to achieve carbon neutrality and fulfil its commitments under the Paris Agreement. To this end, we plan to launch a group-wide "Green Finance" project to become a pioneer and leader in that field.

Managing this across so many subsidiaries sounds quite difficult. Who in the organization is driving the overall ESG reporting?

As an integrated financial and technology group, Ping An has a diversified business structure and more than 30 companies, so integrating ESG information disclosure and reporting into our strategy and different businesses is a complex project. As a group listed in Shanghai and Hong Kong, we must meet the disclosure requirements of the exchanges and other regulators in both locations. Furthermore, investors and third-party ESG rating agencies have different information requirements to analyse our ESG performance.

Our approach has three main parts. The first is the ESG management and organizational structure from top to bottom. The Investor Relations and ESG Committee sits under the group's board of directors and acts as the senior management team for ESG. It reviews our ESG strategies on a regular basis, formulates short-, medium- and long-term plans, and coordinates the member companies through the group's ESG office.

The second is the policy procedure. The ESG management policies and information disclosure requirements are issued by Ping An's ESG office on a regular basis to guide and review the ESG practices, statistics and other information of relevant functional departments and subsidiaries of the group.

The third is exploiting our technology advantages to simplify procedures and improve efficiency. We began development of an artificial intelligence (AI)-ESG platform in 2018 to facilitate group-wide automated information collection and online management. As a result, our annual reporting periods in 2019 and 2020 were shortened by 22 days and 40 days respectively compared to 2018.

What is Ping An doing to integrate ESG into its investment analysis and decision processes?

Our Responsible Investment Policy is built around the following key principles: ESG integration; active ownership; theme-oriented investment; prudence and information transparency. Under these principles, all of our subsidiaries formulate their investment manuals based on asset attributes and investment procedures, setting out how to apply different principles and strategies in different asset classes.

We use the ESG concept to directly guide risk management and asset allocation. For example, investment in listed companies is generally subject to the principles of prudence and the ESG inclusion method (based on fundamental analysis); private equity is generally subject to the principles of theme-oriented investment and prudence; and the active shareholder method can be used for investments with director seats when it comes to ESG communication and supervision. Moreover, to include the group's ESG assets in the standard risk management procedure, Ping An has internally established a set of ESG evaluation criteria, and made AI-empowered tools available.

Currently, our ESG rating system can provide ESG scores for 3,900 A-share companies every quarter. This provides our investment managers with necessary data and tools so they can include ESG

information in the investment process. This way, the ESG information is included just like other financial data for the measurement of the target value.

Many companies see ESG functions as nothing more than a compliance activity. Has Ping An seen any tangible benefits from this level of ESG integration?

At Ping An, ESG is more than just a response to market concerns and compliance with the disclosure rules of the exchanges. ESG is a response to the questions raised by our society and environment that goes beyond improving corporate governance.

ESG helps to enhance Ping An's brand reputation and overall competitiveness. At the level of our individual businesses, ESG enables better investment management and performance. ESG

integration helps companies reduce risks, such as liquidity and asset impairment. ESG theme-oriented investment helps us discover more targets with green premiums.

Furthermore, the process of establishing our ESG standards and systems based on our experience and technology has enabled the group to provide intelligent tools and services to more companies to improve their ESG management and to financial organizations for the ESG integration of their investment portfolio.

Our commitment to improving the ESG level of Chinese companies allows us to create a better domestic business and investment environment, to create better interaction between society and the environment and to achieve sustainable development at the societal level.

3

Regulators: how they are driving ESG reporting

OUTLOOK

Market participants expect that regulators will issue new ESG reporting requirements for mainland China-listed companies. New ESG reporting requirements could bring a step-change increase in publicly available corporate ESG information and would be the biggest driver of ESG reporting in mainland China.

Mainland China's ESG reporting requirements can use international experience and investor demand. Given HKEX and others' experience and the strong investor demand, mainland China faces a more receptive market sentiment than was the case in 2016 for HKEX.

Chinese companies are predominantly listed in Hong Kong, Shanghai and Shenzhen, with a smaller number listed in other locations. Their ESG reporting is influenced by the regulatory requirements in each location where they are listed.



ESG reporting in Hong Kong

A commonly cited issue with corporate ESG reporting is that many of the world's largest financial centres do not have mandatory requirements or standards. Companies are usually left to decide for themselves which information to disclose and how to measure it. The result is a lack of comparable ESG information, and a tendency for companies to disclose only data that is easy to report and reflects favourably on them.

Hong Kong has been making commendable efforts to address these issues by requiring increasingly specific ESG disclosures. HKEX began highlighting the topic of ESG reporting in Hong Kong's capital markets in 2012. After years of market engagement and awareness building, listed companies were required to publish ESG reports beginning in 2016.

Hong Kong's requirements apply to all listed companies, from the largest to the smallest. Ease of reporting was a consideration in designing the requirements, and HKEX has published extensive guidance and training materials so that even smaller listed companies with limited resources can comply. In contrast, the ESG reporting requirements of the EU Non-Financial Reporting Directive are mandatory only for companies with more than 500 employees.⁷

In December 2019, HKEX announced further upgrades to its ESG reporting requirements, effective from July 2020. The latest version aims

to enhance the board's ESG leadership role and accountability. Disclosure of a board statement is required to communicate the board's oversight of ESG issues as well as its strategy and management approach to evaluate ESG-related issues, including material risks to the business.

Specific requirements relating to materiality analysis of ESG issues, reporting boundaries and forward-looking environmental impact targets were also introduced as provisions to help the board take ownership in monitoring and driving continuous improvement in ESG performance. Moreover, Hong Kong's regulators recently announced that climate-related disclosures aligned with the TCFD recommendations will be mandatory for financial institutions and all relevant sectors, including asset managers and insurers, by 2025.⁸ A summary of the HKEX ESG reporting requirements is provided in the Appendix.

Beyond listing rules, HKEX recently launched the Sustainable and Green Exchange (STAGE) – a catalytic enabler for green finance across Asia. STAGE is an online platform that addresses issues such as data availability, accessibility and transparency. It provides opportunities for issuers to increase the visibility of their financial products that meet certain sustainable and green standards across asset classes. It also gives investors the information they need to make informed decisions and provides all stakeholders with regular news, events and opportunities related to green finance.

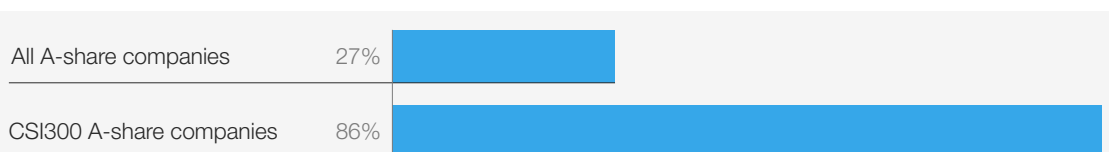
ESG reporting in mainland China

There is a mix of required and voluntary ESG reporting in mainland China. For example, the China Securities Regulatory Commission (CSRC) requires companies on the Ministry of Environment and Ecology's list of heavy polluters to disclose details of their pollution and pollution control measures.⁹ The Shanghai Stock Exchange, to offer another example, requires listed companies to report information related to environmental impact such as regulatory investigations, sanctions etc. that might affect their share price. It requires

companies involved in areas such as thermal power generation, steel, cement, electroplated aluminium or mineral production to report on their resource consumption, pollution, pollution control measures and targets, etc.¹⁰

The Shanghai Stock Exchange's Science and Technology Innovation Board (aka the Star Market) requires companies to report how they fulfil their social responsibility and, when appropriate, to report on corporate social responsibility,

Percentage of A-share companies issuing ESG reports



Note: As of 15 June 2020; includes reports labelled as "sustainability", "CSR" etc.

sustainability and/or environmental responsibility,¹¹ although issuing an ESG report remains voluntary.¹²

In February 2021, the CSRC issued a market consultation that proposed a revision to investor relations guidelines. It added ESG information to a list of issues on which listed companies should update investors.¹³

The Shanghai Stock Exchange and the Shenzhen Stock Exchange have issued guidance on voluntary ESG reporting since 2008 and 2006, respectively. Both are members of the UN Sustainable Stock Exchanges Initiative, alongside HKEX.¹⁴

There is a positive trend of voluntary reporting. As of mid-2020, 1,021 A-share companies¹⁵ (i.e. Shanghai- and Shenzhen-listed issuers) had published annual ESG reports,¹⁶ up from 371 companies in 2009.¹⁷ Of these, about 130 A-share companies have dual listings in Hong Kong,¹⁸ where ESG reports are required.

The largest A-share companies are more likely to issue ESG reports. Some 86% of the CSI300¹⁹ companies had published reports as of mid-2020,²⁰ nearly matching the 90% rate among S&P 500 companies.²¹

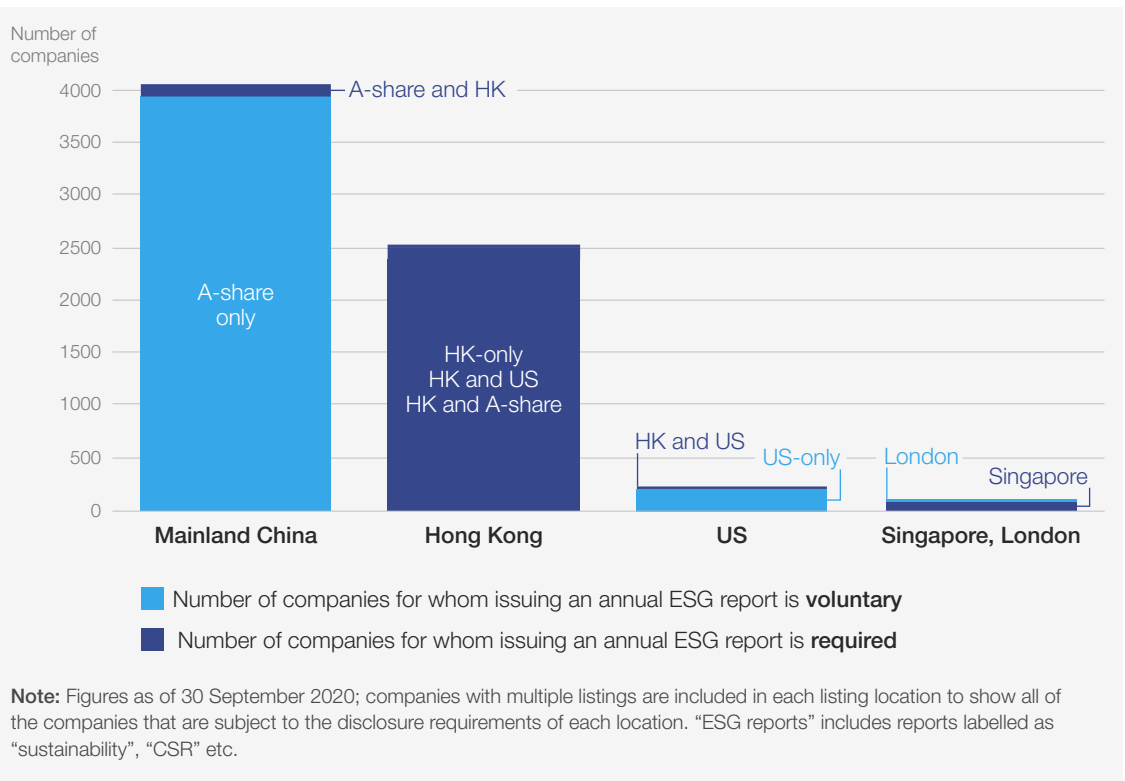
Other major listing locations of Chinese companies

There are more than 200 Chinese companies listed on the major US stock exchanges, many with dual listings in Hong Kong and mainland China.²² The US does not require listed companies to issue an ESG report, although they are generally required to disclose all material risks.

The disclosure requirements for companies listed in Hong Kong, Singapore and London have different areas of focus and depth, potentially

making meaningful global peer benchmarking of ESG performance challenging. Singapore-listed companies are required to provide descriptions of sustainability practices that reference: a) ESG factors; b) policies, practices and performance; c) targets; d) their sustainability reporting framework; and e) their board statement. Issuers in the UK are required to disclose information relating to environmental and employee matters to the extent necessary for an understanding of the business.²³

Number of Chinese companies listed in major market locations



Sources: Bloomberg, PwC analysis

Alex Xiang, Vice-President International Business, Xiaomi

What has been driving Xiaomi's ESG efforts?

At Xiaomi, ESG/CSR issues are addressed and managed at three levels. At the foundation, Xiaomi, as a business entity, operates to comply with all requirements, whether legislation and regulations or conditions laid out by our clients. Xiaomi extends its responsibility beyond its own operations by exerting influence on its supply chain – we want to ensure that our suppliers meet legal requirements with regard to the environment, health and safety and labour rights. At the second level, we work to be a good corporate citizen by undertaking philanthropic activities such as making donations and disaster relief. At the top level, we are exploring how Xiaomi, as a business, can create social value. For example, it is Xiaomi's mission to "make quality technology accessible to everyone". With this in mind, Xiaomi has been enhancing accessibility features in its smartphones and other ecosystem products for users with disabilities. Another example is the earthquake alert system in our smartphones and TVs, which provides an emergency warning up to 10 seconds before a seismic wave arrives.

Our ESG corporate reporting efforts accelerated with our IPO in 2018. The HKEX's ESG disclosure requirements are increasing. And, since 2019, our investor relations team has been receiving increasingly frequent ESG enquiries from investors and rating organizations.

What are the main ESG-related challenges in your industry?

With our business scope including smartphones, the artificial intelligence of things (AIoT), internet services and lifestyle products, our responsibilities are expansive. We have a large network of suppliers that manufacture our products, mainly in China but also in India and Indonesia. We have shipped hundreds of millions of smartphones around the world; and there are more than 200 million other devices connected to our internet of things (IoT) platform. We have more than 300 million active users online. In addition to our manufacturing suppliers, we also have an international community of developers.

Environmental protection, business ethics and labour practices are all areas in which we need our suppliers to meet industry standards and follow all of the relevant regulations. In addition to protecting workers and the environment, ensuring good practice in our supply chain protects our brand and limits the risk of manufacturing disruptions.

Our electronics manufacturing supply chain is diverse, with large companies that serve international brands, as well as smaller private companies.

As an international internet services provider and IoT platform, we also need to focus on information security and user privacy. We need to meet industry standards, as well as privacy requirements in more than 60 countries. And we are continuously updating our systems to address the latest security threats.

How does Xiaomi address ESG in its manufacturing and online ecosystems?

Following relevant laws and industry standards is the minimum requirement. In addition, Xiaomi has set up its own supplier social responsibility code of conduct and supplier social responsibility agreement that specify our ESG management requirements for suppliers. These cover 13 dimensions, including business ethics, the environment and labour rights. Every year, we conduct social responsibility audits on selected key suppliers. When risks are identified, we set a deadline for rectification, monitor progress and provide coaching.

We also manage and control information security in our supply chain. Supplier selection includes information security review and approval. Xiaomi conducts strict privacy compliance assessment on ecosystem products before they can be launched. These include assessments by our lawyers and engineers, as well as automated assessment processes.

To help identify any issues, we also have multiple whistle-blowing channels, including a 24/7 reporting platform that is open to global staff, customers, investors and partners and covers 60 languages.

As part of our commitment to improve the ecosystem, we have invested in more than 290 ecosystem partners and provided supply-chain financing to more than 400. Regulators and investors are currently focused on large, listed companies' ESG performance, but we need to raise the standards for small and midsize companies, as well.

Xiaomi also works to optimize the operations of its offices, stores and data centres, as well as its product design and packaging to reduce energy consumption, GHG emissions and the use of plastics and other resources.

How is ESG management organized in your company?

Our board has overall responsibility for ESG. Operationally, we have a social responsibility management team, which involves multiple businesses and departments in guiding and coordinating the overall ESG practices of the company. In each department across the group, we have either dedicated personnel or points of contact for ESG and social responsibility-related issues. The social responsibility team closely engages with them to ensure that all specific issues are properly addressed.

Do you face any challenges in ESG reporting?

The biggest reporting challenges relate to non-financial metrics for which disclosure requirements are relatively new. These might not have been previously incorporated in our enterprise resource planning (ERP) and day-to-day operations management, so we need to develop new measurement and reporting processes across multiple departments and geographies. We need to educate staff on the new concepts. In some cases, an industry standard has not yet been agreed upon.

4

Investors: how they are driving ESG reporting

OUTLOOK

Domestic asset owners and managers are upskilling and integrating ESG; and international asset owners and managers' influence will likely increase. Signatories to PRI are on the rise and PRI's own requirements are becoming more demanding. Moving into a new decade, institutional investor ownership will likely increase as global indices increase their inclusion of A-share companies²⁴ and as regulators allow more cross-border participation in the mainland China equities markets.

Public pension and sovereign wealth funds with significant AUM and top-down decision-making structures could create major stimulus for domestic ESG assets. China's National Council of Social Security Fund issued its first ever request for proposal (RFP) for a global responsible investing equities mandate in September 2020. This might signal the start of an ESG trend for mainland China's public pension and sovereign wealth funds,²⁵ which rank among the world's largest.

The growth of China's middle class and generational shifts are likely to move investment towards ESG products over time. The growth of China's middle class could lead to an increase in demand for professionally managed funds. Combined with younger generations' growing focus on environmental and social issues, this could foster long-term growth for mainland China's ESG-themed investment products.



Shareholder types in Chinese companies' major listing locations

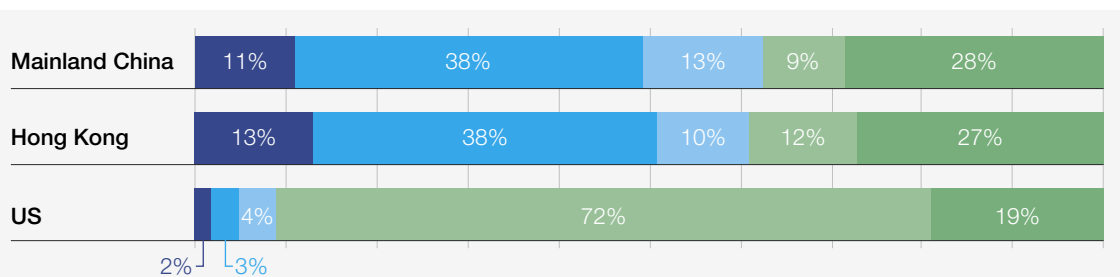
Listed Chinese companies have a variety of shareholder and investor types, each of which has its own characteristics and can influence corporate ESG reporting.

According to an Organisation of Economic Co-operation and Development (OECD) report published in 2019, the largest shareholder category for listed companies in mainland China

and Hong Kong is the public sector, with nearly 40% ownership. The second largest category is "others including retail investors", accounting for more than 25% ownership.²⁶

For US-listed companies, institutional investors hold more than 70% ownership. The second largest ownership share is held by "others including retail investors".²⁷

Ownership of listed companies by type of shareholder and listing location (market capitalization-weighted average)



- **Private corporations:** Listed and unlisted private companies, their subsidiaries, joint ventures and operating divisions
- **Public investors:** Direct ownership by central governments, local governments, public pension funds, state-owned enterprises (SOEs) and sovereign wealth funds
- **Individuals including family offices:** Physical persons that are either controlling owners or members of a controlling family or block-holders and family offices
- **Institutional investors:** Pension funds, insurance companies, mutual funds and hedge funds. Institutional investors' holdings are recorded according to their domicile country, which can be different from the domicile country of the beneficial owner
- **Others including retail investors:** Investors that are not required to disclose their holdings

Note: Data as of 31 December 2017; Source: De La Cruz, A., A. Medina and Y. Tang (2019), "Owners of the World's Listed Companies", OECD Capital Market Series, Paris.²⁸

State-owned enterprises (SOEs)

One reason for the high level of public-sector ownership in China is the number and size of its SOEs. An SOE is generally defined as a company whose de facto controlling shareholder is a government entity. According to the data provider Wind, there are more than 1,200 SOEs listed in Shanghai and Shenzhen, including about 400 central (national government-related) SOEs and about 800 local (local government-related) SOEs.

There are more than 300 SOEs listed in Hong Kong, of which more than half are central SOEs.²⁹ About 100 SOEs are listed in more than one location.³⁰

Government entities acting as SOE shareholders are attuned to the national environmental and social welfare priorities and long-term perspective – important factors in driving ESG reporting and performance.

Public-sector investment funds

China's public-sector pension and sovereign wealth funds have significant power to demand ESG performance and reporting from those listed companies in which they invest. Among this group, the Hong Kong Monetary Authority (HKMA) is leading the way as the first public-sector asset owner in China to sign the PRI.³¹

China's government-backed basic pension programme and National Social Security Fund (NSSF) together account for nearly 80% of mainland China's pension assets.³² An ESG focus would be well aligned with their long-term investment horizon and their role in supporting retirees' income and well-being.

Domestic asset owners and asset managers

Five asset owners and 89 investment managers in Hong Kong and mainland China have signed the PRI, and now account for nearly 3% of the asset owners and investment managers that have signed the PRI globally.³³ Institutional investors are estimated to hold roughly 10% ownership share of companies listed in Hong Kong and mainland China.³⁴

Some of these institutional investors are actively promoting better ESG performance and reporting among Chinese companies. Examples of leading practices adopted by PRI signatories include:

- HKMA, as the manager of the Exchange Fund of Hong Kong, announced a series of responsible investment measures in 2019, including the adoption of a principle that gives priority to green and ESG investments if the long-term return is comparable to other investments on a risk-adjusted basis³⁵
- Mainland China's Ping An, one of the world's largest insurance companies, is playing a leadership role with regard to both ESG reporting and ESG investing. The company

is integrating ESG factors into its investment analysis and decision-making processes across its insurance, banking, trust and asset management businesses

- Starquest Capital is an RMB fund of funds that invests in venture capital and private equity funds, and incorporates ESG into its investment process. Starquest evaluates potential investments with an ESG committee³⁶ and promotes awareness of ESG issues such as low-carbon transition, employee safety and data privacy

In a 2019 survey of asset managers in Hong Kong, 56% of respondents regarded ESG factors as a source of financial risk and considered at least one ESG factor in their investment decisions. Some 29% consistently integrated ESG factors into their investment and risk management processes, while 19% had processes in place for the management of climate-related risks. These numbers are expected to increase significantly as nearly two-thirds of those surveyed planned to strengthen their ESG practices during the next two years.³⁷

Hong Kong asset managers surveyed by the Securities and Futures Commission



Source: Securities and Futures Commission of Hong Kong

International asset owners and asset managers

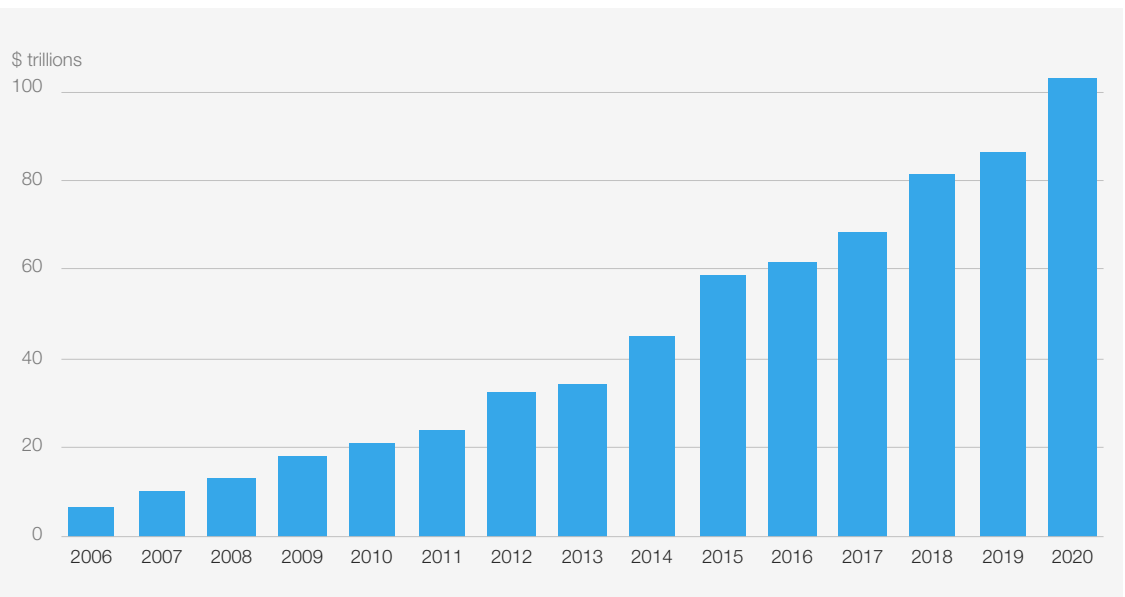
The 10 largest asset management companies worldwide are PRI signatories, with combined AUM of more than \$30 trillion.³⁸ Eight of these are US-based and two are based in Europe. In line with the PRI and their focus on managing long-term risks and returns, many of them are taking an increasingly active ownership approach, via voting and direct engagement, in order to drive better ESG performance and disclosure – especially in terms of climate risks and TCFD reporting.³⁹

Globally, the AUM of asset owners and asset managers that have committed to the PRI surpassed \$100 trillion in 2020, an increase of 75% over 2015. PRI signatories have committed to incorporating ESG issues into their investment analysis and decision-making processes, as well as to be active owners and to incorporate ESG issues into their ownership policies and practices, and to seek appropriate disclosure on ESG issues by the entities in which they invest.⁴⁰

Large asset managers often have their own dedicated ESG teams that analyse companies' disclosures as well as subscribing to ESG data from third-party sources. They also rely on questionnaires as a key source when gathering information on, for instance, industry-specific ESG issues (e.g. data privacy for retail, employee safety for construction and conflict minerals for electronics manufacturers) and companies' approaches to managing ESG risks.

Their ownership levels of A-shares, however, remain low. As of early 2019, mainland China's stock market was the second largest in the world, accounting for 8% of global equity market capitalization, while A-shares accounted for only 0.2% of global equity funds' holdings.⁴¹ Foreign and Hong Kong investors account for about 4% ownership of shares (by value) that are listed in Shanghai and Shenzhen.⁴²

Assets under management by PRI signatories



Source: PRI

Global indices and ESG ratings in China

Ownership of A-shares by international institutional investors is expected to increase as their inclusion in global indices grows. In 2018, the MSCI Emerging Market (EM) Index began including mainland China-listed large-caps, then, in 2019, began including mainland China-listed mid-caps. As of August 2020, the overall weight of Chinese companies and A-shares in the MSCI EM Index was about 41% and 5% respectively.⁴³ The MSCI EM Index contains more than 700 China constituents,⁴⁴ of which 474 were A-shares at the end of 2020.⁴⁵

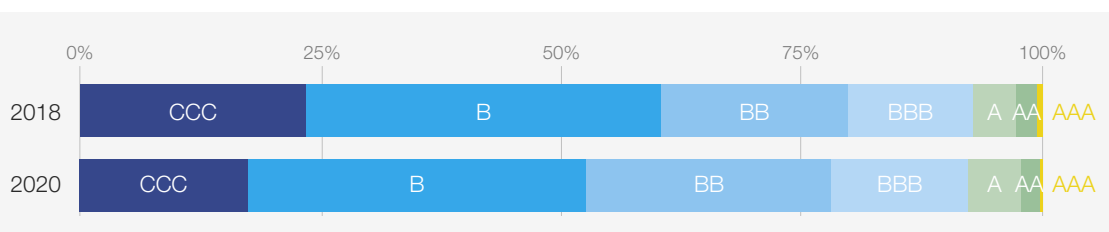
FTSE Russell began to include A-shares in its global equity indices in 2019, and by June 2020 had included 1,051 large-, mid- and small-cap China A-shares in the FTSE Emerging All Cap Index.⁴⁶ In September 2019, about 1,100 China A-shares,

including large-, mid- and small-caps, were added to the S&P Emerging Broad Market Index (BMI).⁴⁷

There are several organizations providing ESG ratings in China, including MSCI, SynTao Green Finance, China Alliance of Social Value Investment (CASVI), Sino-Securities Index and FTSE Russell. Their ratings help investors analyse ESG performance and may also affect companies' inclusion in ESG-related indices and funds.

MSCI assigns ESG ratings to around 700 Chinese companies. Their ESG ratings are normalized globally by industry. Between 2018 and 2020, the MSCI ESG ratings for Chinese companies improved, but the majority are still at the lower end of the seven-tier AAA-CCC scale.⁴⁸

Distribution of MSCI ESG ratings for Chinese companies⁴⁹



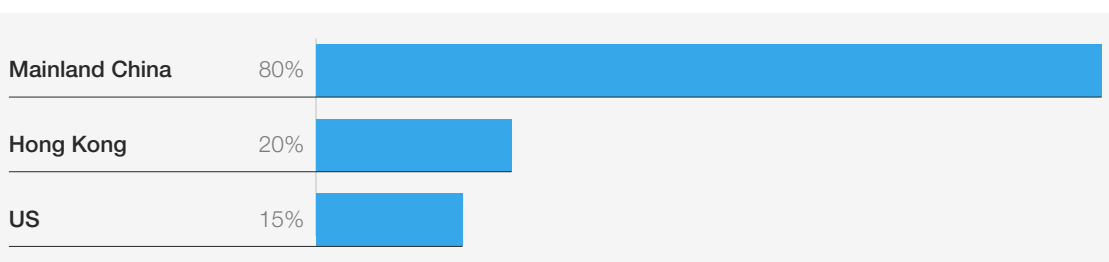
Source: MSCI, PwC analysis

Retail investors

Researchers in the People's Bank of China School of Finance at Tsinghua University analysed billions of trades from a major securities exchange in mainland China and found that retail investors accounted for

80% of the trading volume during the years 2016–2019.⁵⁰ In contrast, retail investors account for only about 20% of trading volume in Hong Kong⁵¹ and 15% in the US.⁵²

Retail investor share of equity trading volumes by location of exchange



Sources: Zhang Xiaoyan, HKEX, Bloomberg

The researchers note that retail investors in China can be characterized as frequent traders, not long-term shareholders.⁵³ Their focus on short-term profits stands in contrast to pension funds or insurance companies, whose investment horizons can stretch into the next century. Generally, long-term shareholders value ESG reporting and performance more than short-term investors because ESG value creation is primarily a long-

term proposition. The dominant share of trading activity by retail investors could hinder strong ESG performance being fully reflected in share prices on mainland China exchanges.

The Forum's Insight Report China Asset Management at an Inflection Point⁵⁴ discusses changes in China's investment ecosystem, including the implications for ESG products, in greater detail.

Amy Fong, Chief Operating Officer and ESG Leader, FountainVest Partners

What are the drivers of FountainVest's ESG efforts?

We are one of the largest China-focused PE funds and have a highly international investor base. During the past 12 months, nearly all of our potential investors and limited partners have asked about our ESG policies. Many of our limited partners have their own dedicated ESG teams.

We also believe that improving our portfolio companies' performance on ESG issues will drive increased returns on our investments.

How does FountainVest integrate ESG into its investment processes and engagement with its portfolio companies?

We have an ESG due diligence framework and a pre-investment ESG checklist. Before we invest, companies must sign an ESG undertaking, and we ask them to provide ESG KPIs so that we can monitor their progress. We also have a pre-exit ESG due diligence checklist.

During the past year, we have been benchmarking ourselves against private equity (PE) industry best practices. We rate well against our peers in Hong Kong and mainland China, but we are always working to improve.

We have our own ESG committee, which I chair. It also includes our chief executive officer, head of portfolio management and other deal team and functional heads. We are hoping to create an ESG network among our portfolio companies and increasing our ESG-related engagement with them.

What are some key steps in the ESG journey for pre-IPO companies?

First, you need to have buy-in and leadership from senior management; the board needs to set the direction and demonstrate commitment. They need to identify which ESG factors are relevant to their business. Management needs to educate their staff on ESG concepts and their importance to their company's success. Next, the company needs to assign resources to drive initiatives and KPI reporting.

We start out by asking our portfolio companies for 5–10 ESG KPIs that are tailored to their business. The initiatives and KPIs become more sophisticated as they move forward on their ESG journey.

Companies sometimes ask us which standards or frameworks they should work towards. For those in China with PE investors, a Hong Kong IPO is a common aspiration. So it is logical for Chinese companies to set up their ESG approach according to the HKEX ESG Reporting Guide. Whether or not they eventually list in Hong Kong, they will be using the same locally developed framework as many of their China peers. This facilitates better comparability, benchmarking and investor engagement.

What are the challenges that you see?

Smaller companies lack the resources to hire an ESG specialist, so this will likely be assigned as an officer's secondary role. In my case, for example, I am both the chief operating officer and the ESG leader for our firm. Companies need to ensure accountability for leading ESG, but also reward those who take on these responsibilities.

COVID-19 has had a large impact on many businesses. Many companies that are struggling for short-term survival lack the resources for ESG initiatives right now. Some of our portfolio companies, for example, have asked to report annual KPIs this year instead of quarterly.

Many people focus on the environmental aspect of ESG. How do you engage companies on the social and governance issues?

Even though the "S" and the "G" are not always top of mind compared to climate change and pollution, it only takes a discussion or two to create greater awareness of the full scope of ESG.

People are all aware of concepts such as diversity and inclusion, workplace accidents, employee health and well-being etc. But they might not associate these with ESG until we have our first discussion. In terms of governance, people understand why anti-corruption measures are important; they understand why it is important to have board-level leadership and accountability.

Do you expect the current emphasis on ESG to continue in China?

Demands for better ESG performance and reporting are currently coming from many angles. The HKEX requirements, the World Economic Forum IBC's Stakeholder Capitalism Metrics, and institutional investors are all pushing companies in a similar direction, especially with their alignment on TCFD. There is a positive snowball effect: if your company's competitors are all publishing ESG reports, then you need to issue your own, as well.

5

China's 2060 carbon neutral goal: ESG reporting could set a strong foundation for climate transition

OUTLOOK

China's 2060 carbon neutral goal will provide added impetus to ESG reporting. The goal, along with the aim of peaking CO₂ emissions before 2030, will likely drive reporting on two fronts: more detailed decarbonization plans and targets, and increased alignment with TCFD recommendations.

The announcement will drive investment and corporate action. This clear policy direction, combined with enhanced corporate reporting, will help investors channel funds to those companies that are climate-resilient and on track for transitioning to a lower-carbon business model.



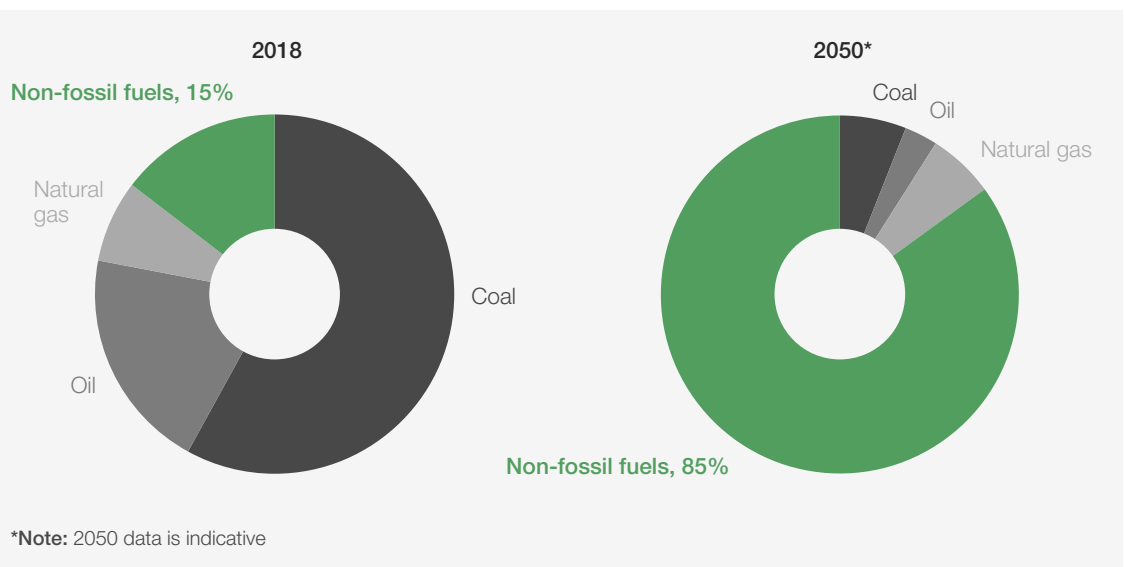
Transformation and funding requirements

China's 2060 carbon neutral goal and its aim to have CO2 emissions peak before 2030 will intensify the focus on climate-related corporate reporting and transformation. Quality reporting can guide capital flows, while helping regulators to monitor progress and make timely policy decisions.

The country's 2060 carbon neutral goal,⁵⁵ announced by President Xi Jinping in September 2020, advances China's low-carbon policy support since the Paris Agreement. In the recently announced 14th Five-Year Plan, China has introduced new targets to reduce, by 2025, energy intensity by 13.5% and carbon intensity by 18% from 2020 levels. The same plan also announced China's commitment to increasing the proportion of non-fossil sources in its energy mix to approximately 20% by the end of 2025.⁵⁶

According to Tsinghua University's Institute of Climate Change and Sustainable Development (ICCS), China's non-fossil fuel share of total energy production will need to increase from about 15% to more than 85% by 2050 in order to achieve this goal. At the same time, the share of electricity in end-use consumption will need to increase from the current 25% to about 68%.⁵⁷ Industrial sectors that cannot be electrified will need to transition from fossil fuels to low-carbon alternatives such as green hydrogen. Negative emissions technologies, such as carbon capture and storage, will also need to be developed and adopted on a large scale.

China's primary energy mix by source



Sources: BP, Tsinghua University Institute of Climate Change and Sustainable Development

The ICCSD estimates that these transitions would require more than RMB170 trillion (\$26 trillion) in energy infrastructure investment across the energy, industrial, transport and building sectors.⁵⁸ The rapid rise of China's electric vehicle (EV) and renewable energy sectors during recent years demonstrates the potential for climate policy to drive investment and growth.

China-EU cooperation on work towards a "common ground taxonomy" for sustainable

investments is indicative of the increasing collaboration and alignment that could facilitate cross-border green financing activities to accelerate the climate transition.

Developing a sound ESG reporting system that provides comparable emission data and climate-related practices would set a strong foundation for China's journey towards a low-carbon economy.

What role does ESG play in Envision's strategy?

With decarbonization bringing great opportunities for our business, ESG is fundamental to our strategy. Envision is the number two wind turbine manufacturer in China, and number five in the world. In 2018, we acquired AESC, an EV battery manufacturer with factories in the US, Europe and Japan, and are now adding a fourth factory in Wuxi, China. We are developing AIoT platforms to better use energy storage while efficiently matching intermittent renewable energy production with intermittent demand.

Our customers aim to reduce or eliminate their carbon footprint, so they will need ESG data, analysis and reporting to manage their own footprint and energy efficiency. Focusing on ESG practices also helps us to better manage our own data and operations, including the energy consumption and emissions of our own operations, as well as those of our supply network. All of this data helps to fuel our constant innovation.

We need to be a leader by decarbonizing our own operations and products. As a member of RE100 (a global renewable electricity initiative), we have committed to sourcing 100% of our electricity from renewable sources by 2025; this is a big challenge for EV battery manufacturing.

We are working with third-party experts to assess and report our Scope 3 emissions, and to set a net zero goal for Scope 1, Scope 2 and Scope 3 carbon emissions. This will require us to find solutions for difficult industries such as cement and steel, both of which are used in our wind turbines.

What are the major challenges to China's low-carbon transition?

Decarbonization requires the complete transformation of the economy. A project of this

scale requires more than technology; it needs strong policy direction to guide markets and new investment across all sectors.

China's policy goal of achieving peak carbon by 2030 and carbon neutrality by 2060 provides very clear direction. Investment will flow to sustainable energy solutions while carbon-intensive energy sources and industrial methods will be phased out.

The next big challenges will involve laying out KPIs for industry sectors and provincial governments. The grid will need to be transformed for distributed generation and storage capacity, and to bring power to consumers from locations rich in wind and solar. Innovation will be needed in electricity spot markets and power purchase agreements. Cities will need smart, data-driven AIoT energy management platforms.

Creating green energy market mechanisms, such as emissions trading and green energy certificates will be another big challenge. These markets need to operate and interconnect, on a national or global scale, to prevent double counting and to facilitate cross-border reporting and comparability. These require broad agreement on standards, certification requirements and audits.

What are the biggest ESG challenges faced by companies in China?

Compared to Europe, China still needs to develop widespread ESG-related expertise. Even though major Chinese companies in relevant industries all understand and support decarbonization, most still require additional specialized expertise to collect, analyse and report ESG-related data.

Measuring and reporting companies' Scope 3 carbon emissions will require standardized metrics throughout the supply chain and will demand a level of transparency that many companies will find challenging.

Conclusion

China's environmental, social and governance (ESG) ecosystem is maturing rapidly, requiring local and global stakeholders to recognize some important nuances. While regulators, investors and policy-makers are actively raising the bar for sustainable corporate performance, Chinese business leaders increasingly understand the importance and benefits of measuring performance not only through financial indicators but also with ESG metrics. Some businesses are already seizing the commercial and strategic opportunity to become leaders and early movers in ESG measurement and disclosure; this is not only in response to pressure from investors and capital providers to communicate and report on their ESG approach, but also because strong ESG practices can pave the way to more resilient businesses and even open up entirely new markets for sustainable products and services.

Important hurdles remain for the mainstream to embrace ESG frameworks. This is true in China and globally. More ongoing capacity-building will be needed to overcome these hurdles. Many business actors are eager to gain a better understanding of what they should be doing but are not sure where to look for guidance. Quality data generation and accessibility remains a major challenge. More work needs to be done to address this, and it is our sincere hope that a common set of disclosures such as those described in the [Stakeholder Capitalism Metrics](#) may eventually prove useful in establishing consistent, material and achievable steps along the path towards a more sustainable economy for

regulators, investors and companies alike. We will continue to support the efforts of other important multilateral bodies, such as the International Financial Reporting Standards (IFRS) Foundation, in establishing global and universal sustainability reporting standards.

The World Economic Forum and PwC, along with the many contributors and participants in this valuable discussion so far, encourage all relevant stakeholders to further advance the adoption of meaningful metrics and reporting mechanisms in China and globally. Experts participating in this initiative frequently highlighted the need for a roadmap that can help businesses plan their ESG journey. Different businesses will have different starting points on this roadmap, but a common framework will ensure all actors are working towards the same outcome and can learn from one another on the way. Sharing best practices and examples of how different organizations have solved common challenges can serve as an additional tool to accelerate ESG adoption and spread innovations in ESG practices.

The ever-growing focus on ESG performance and reporting presents an enormous opportunity for Chinese businesses. The world is eager to hear from leaders about how they will shape China's growing global footprint and how they contribute to the communities in which they operate. It is now incumbent on all stakeholders to embrace this opportunity and become champions of ESG in China.

Appendix

Overview of HKEX ESG disclosure requirements

Mandatory disclosure requirements

Board statement

- A disclosure of the board’s oversight of ESG issues
- The board’s ESG management approach and strategy, including the process used to evaluate, prioritize and manage material ESG-related issues
- How the board reviews progress made against ESG-related goals and targets, with an explanation of how they relate to issues affecting the issuer’s businesses, including risks to these businesses

A description or explanation of the application of the following reporting principles in the preparation of the ESG report:

- **Materiality:** The ESG report should disclose: (1) the process to identify and the criteria for the selection of material ESG factors; (2) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer’s stakeholder engagement
- **Quantitative:** Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed
- **Consistency:** The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison

Reporting boundary

A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change

“Comply or explain” provisions

General disclosure of information on:

- The policies, and
- Compliance with relevant laws and regulations that have a significant impact on the company relating to the environmental and social topics listed below.

Environmental

Emissions

- Emission types and amounts
- Direct (Scope 1) and energy indirect (Scope 2) GHG emissions amounts and, where appropriate, intensity
- Emissions targets and steps taken to achieve them
- Hazardous and non-hazardous waste produced (amount and intensity)
- How hazardous and non-hazardous wastes are handled, reduction target(s) and steps taken to achieve them

Use of resources

- Direct and/or indirect energy consumption by type, in total and intensity
- Energy efficiency targets and steps to achieve them
- Water consumption and intensity
- Issues with sourcing water, water efficiency targets and steps taken to achieve them
- Packaging material used for finished products, and amount per unit

The environment and natural resources	<ul style="list-style-type: none"> – Policies on minimizing the issuer’s significant impacts on the environment and natural resources – Significant impacts of activities on the environment and natural resources and the actions taken to manage them
Climate	<ul style="list-style-type: none"> – Policies on identification and mitigation of significant climate-related issues that have affected, and that may affect, the issuer – Significant climate-related issues that have affected, and that may affect, the issuer, and the actions taken to manage them
Social	
Employment practices	<ul style="list-style-type: none"> – Workforce composition by gender, employment type (e.g. full- or part-time), age group and geography – Employee turnover rate by gender, age group and geography
Health and safety	<ul style="list-style-type: none"> – Work-related fatalities (three years) – Lost days due to work injury – Occupational health and safety measures, implementation and monitoring
Development and training	<ul style="list-style-type: none"> – Percentage of employees trained by gender and employment category (e.g. senior management, middle management) – Average training hours completed per employee by gender and employment category
Labour standards	<ul style="list-style-type: none"> – Employment practices review to avoid child and forced labour – Steps taken to eliminate such practices when discovered
Supply-chain management	<ul style="list-style-type: none"> – Number of suppliers by geography – Supplier engagement practices, their implementation and monitoring methods, and number of suppliers for which they are implemented – Practices to identify environmental and social risks in the supply chain, and their implementation and monitoring – Practices used to promote environmentally preferable products and services, and their implementation and monitoring
Product responsibility	<ul style="list-style-type: none"> – Percentage of products sold/shipped that were subject to recalls for health/safety reasons – Number of product/service-related complaints and how they were handled – Practices to observe and protect intellectual property rights – Quality assurance and recall procedures – Consumer data protection and privacy policies, and their implementation and monitoring
Anti-corruption	<ul style="list-style-type: none"> – Number and outcomes of concluded legal cases for corrupt practices brought against the issuer or its employees – Preventive measures and whistle-blower procedures, their implementation and monitoring – Anti-corruption training description
Community investment	<ul style="list-style-type: none"> – Focus area of contributions (e.g. education, environment, labour, health, culture) – Resources contributed to the focus areas

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