

CORPORATE EMISSIONS DISCLOSURE IN EAST ASIA

An analysis of the transparency of listed companies and emissions disclosure trends in Japan, China, and Hong Kong SAR

O KEY TAKEAWAYS

CONTENTS

Key takeaways	1
Getting to financed emissions	2
Corporate emissions disclosure by	
geography and sector	4
Japan (Nikkei 225™)	4
China (CSI 300™)	5
Hong Kong (Hang Seng Index™)	7
The state of environmental disclosure regulation	8
Japan	8
China	10
Hona Kona	12

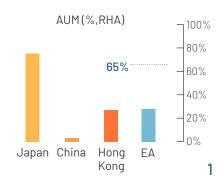
Corporate emissions disclosure regulation in East Asia (EA) is lagging behind the needs of progressive asset owners and asset managers implementing mandates to reduce financed emissions and climate risk. From a lack of data, to unclear guidance, to concerns on alignment to global reporting standards, much improvement is needed.

- 1. **Japan** is following international trends for environmental disclosure, implementing frameworks aligned to The Task Force on Climate-Related Financial Disclosures (TCFD). The announcement that Japan will implement mandatory disclosure of greenhouse gas (GHG) emissions and climate risk will move it towards the front of the pack globally. This builds on the foundation of high levels of voluntary disclosure and the adoption of target setting frameworks like the Science-Based Targets initiative (SBTi). Having said that, announcements on mandatory disclosure have not been followed up with any significant detail or consultation and it remains to be seen if that will happen in this year's corporate reporting cycle.
- 2. China is charting its own course in a market where many large cap companies are unprepared to adopt mandatory environmental disclosure frameworks. Voluntary corporate emissions disclosure is too weak of a step at this point to facilitate the government's 30/60 pledge. Local climate risk and GHG emissions frameworks are being design, but are piecemeal and not yet mandatory across multiple stakeholders. We believe China has no choice but to leapfrog voluntary disclosure and move to mandatory regulation as soon as possible.
- 3. **Hong Kong** underlined its international market status by being an early mover on disclosure, especially through the financial sector. It is clearly aligned to TCFD and will mandate this approach from 2025, but this lacks urgency and current levels of disclosure are poor. It has an imperative to set more urgent deadlines for mandatory disclosure which will set a positive example for China and the region.

We believe that voluntary corporate emissions disclosure has proven to be insufficient especially for asset owners and asset managers who want to calculate financed emissions. The emergence of groups like the Net Zero Asset Managers initiative, as a response to the climate crisis underlines the demand for mandatory disclosure.

Figure 1 Corporate emissions disclosure, leading indices in East Asia (EA)







The need for mandatory frameworks is made clear in Figure 1, showing that a passive manager covering leading listed companies in Japan, China, and Hong Kong would only be able to calculate financed emissions for about 28 percent of AUM in East Asia, at best (far right hand column), assuming all Scope 3 disclosures made by these companies are complete and exhaustive – which is far from the reality. We look at this in more detail in Section 3.

We illustrate the challenge in East Asia with two reference lines: MSCI analysis of the MSCI ACWI Investable Market Index at 25 percent of constituents¹ - which equals 147 companies in this context - and Blackrock's financed emissions disclosure at 65 percent of AUM.²

The design of these mandatory frameworks should be driven by asset owners, asset managers, and net zero policy makers to align to global standards on coverage and scope and to enable financed emissions calculations as the cornerstone of any regulation.

- For asset owners and asset managers in the region, China is a priority across the board. The absence of data is concerning and prevents informed decision making. Mandatory disclosure based on the GHG Protocol and the Partnership for Carbon Accounting Financials (PCAF)-equivalent for financed emissions should be the target. We believe investor engagement and stewardship on China's regulations can help to create a critical pathway for policy makers and push companies to improve the quality and quantity of their reporting.
- 2. As East Asia moves from voluntary to mandatory reporting, from "trust me" to "show me", key regulatory frameworks are being designed for the medium-term in the next 12 months. For **policy makers and regulators**, a focus on exhaustive disclosure of Scope 3 subcategories, particularly Scope 3 investment and financed emissions, must be a key focus to achieve national net zero pledges. The current bar is too low for investors' climate risk assessment needs. This should recognise that asset owners and managers want China to align as closely as possible to global financial reporting, climate risk frameworks, and GHG accounting norms to have common global standards that allow for adequate climate risk assessment.

O GETTING TO FINANCED EMISSIONS

Background

Corporate emissions disclosure is the cornerstone of climate risk and emissions reduction strategies.

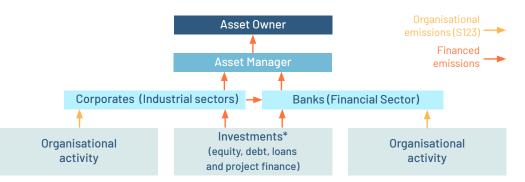
The need to reduce emissions by 45 percent in 2030 based on 2010 levels is the shared concern of asset owners, asset managers, policy makers, and corporations (based on a 1.5 degrees Celsius pathway as defined by the The Intergovernmental Panel on Climate Change (IPCC)). The net zero and climate risk commitments of asset owners and managers continue to multiply. While we understand that climate risk is "the other side of the coin" to GHG emissions, corporate emissions disclosure is the cornerstone of both.

In the analysis below we discuss the quantity and quality of corporate emissions disclosure and reporting, rather than climate risk as a whole. Here, we focus on emissions reduction and standards such as the GHG Protocol and the Global GHG Accounting and Reporting Standard for the Financial Industry developed by PCAF which covers financed emissions. We take the perspective of asset owners and managers that are driving towards their own disclosure of GHG emissions in their investment portfolios - their financed emissions. We highlight this in Figure 2.



From GHG emissions at source to asset owners

* GHG Protocol, Scope 3 Investments = PCAF (The Global GHG Accounting and Reporting Standard for the Financial Industry)



Every asset owner, who sits at the top of the financed emissions chain, needs:

- The organisational emissions of corporations and banks e.g. emissions coming from their operations
- The financed emissions of corporations in industrial sectors e.g. their investments in projects or joint ventures
- The financed emissions of corporations in the financial sector e.g. loans to corporations or their projects

With these GHG emissions - for every industrial and financial corporation - asset owners and managers will calculate their share of the total value of these corporations and present their financed emissions.

In Table 1 we present a summary of the GHG accounting frameworks by country which we explore in more detail in Section 4 e.g. which type of listed company these apply to and where gaps are present.

Table 1
Alignment of GHG
Accounting across
East Asia for corporate
emissions

		Current alig	ınment
		Organisational emissions	Financed emissions
Japan	Financial Services Agency Ministry of Economy, Trade, and Industry, Ministry of the Environment	GHG Protocol National inventory of Japan	GHG Protocol(≡PCAF)
China	Ministry of Environment and Ecology (MEE)	Proprietary, based on GHG Protocol (Scope 1 and 2 for key emitting sectors in ETS only) ³	No detail at present ⁴
	China Securities Regulatory Commission (CSRC)	No detail at present ⁵	No detail at present
	People's Bank of China (PBOC)	GHG Protocol (Scope 1, 2 and 3 (investment) for financials) ⁶	GHG Protocol (for certain asset types)
Hong Kong	Hong Kong Stock Exchange (HKEX), Securities and Futures Commission (SFC), Hong Kong Monetary Authority (HKMA)	GHG Protocol (Scope 1 and 2 and Scope 3 "where appropriate")	GHG Protocol(≡PCAF)



The data gaps and assets under management (AUM)

Leading passive managers calculate financed emissions for 65% of AUM worldwide but this would be 28% for large cap EA equity The reality is that there is still a lack of adequate data. For example, Blackrock's TCFD report for 2021 underlines the nature of "exclusions due to insufficient data", "underreporting", and "estimated emissions [which] may not accurately reflect the actual emissions of any given company". Blackrock is clear this is because while "many companies are measuring and publicly reporting their emissions, which facilitates the type of high-quality data that investors need to effectively calculate climate-related portfolio metrics...many corporations have not yet begun their emissions reporting journey." Blackrock provides financed emissions data for 65 percent of AUM worldwide, while our analysis suggests a passive manager covering leading listed companies in Japan, China, and Hong Kong would be able to calculate financed emissions for about 28 percent of AUM in East Asia, at best, and this assumes all Scope 3 disclosures made are complete. While these may not be like-for-like comparisons, it is an example of serious data gaps in East Asia.

Here, we look at this corporate "journey", providing a snapshot of the corporate emissions disclosure landscape in Japan, China, and Hong Kong, both from a regulatory and sectoral standpoint. It is designed for those that are invested in these markets to help them to recognise the key trends – like the movement towards mandatory disclosure driven by financial regulators – as well as the existing coverage and gaps in voluntary disclosure that exist at present.

CORPORATE EMISSIONS DISCLOSURE BY GEOGRAPHY AND SECTOR

In this section we analyse the three leading equity indices of Japan, China, and Hong Kong SAR - the Nikkei 225, CSI 300, and Hang Seng Index, respectively. As discussed above, this means we are covering companies that in the medium-term will have to be ready for mandatory disclosure regulation across the region. We outline the situation for each country and assess this level of readiness.

We present a hierarchy - from high to low transparency of the following metrics:

Table 2
Disclosure coverage
metrics

Metric	Meaning	Quality of disclosure
S123 & S3's	Scope 1, 2, and 3 and Scope 3 subcategory GHG emissions	HIGH
CO2 & S3's	Generic CO2 emissions (direct and indirect emissions) and Scope 3 emissions	
S123	Scope 1, 2, and 3 GHG emissions only	
C02	Generic CO2 emissions only (direct and indirect emissions)	
S12	Scope 1 and 2 GHG emissions only	
Other	Low to no reporting	LOW



This aims to set out the levels of current corporate emissions disclosure that is made voluntarily in the region via annual and sustainability reports from high- to low-quality. Here, we show the number of companies by coverage and sector (ordered by the estimated Scope 1 and 2 emissions of the latter).

We also show the use of the Carbon Disclosure Project (CDP) for reporting and the use of the GHG Protocol for calculation.

Lastly, we present the percentage of companies in each respective index reporting against each subcategory of Scope 3 emissions.

JAPAN (NIKKEI 225™)

Listed companies' adoption of the ambition and guidance of global initiatives such as TCFD and use of the GHG protocol have made Japan the regional leader. The high levels of disclosure extend to the quality of reporting with some Scope 3 subcategory coverage. The market has good rates of disclosure via CDP but much lower stated use of the GHG protocol, leaving room for improvement.

Upstream Scope 3 disclosure is now done by the majority of firms across the country, while downstream lags behind. In the latter, of most concern for asset owners and managers will be the investment category where financed emissions of projects that are carbon-intensive, like coal and gas-fired power plants (not covered in Scope 1), will be almost impossible to follow. This underlines the need for mandatory disclosure to cover Scope 3 subcategories exhaustively, not just disclosure for its own sake.

A passive asset manager would be able to calculate financed emissions for about **75 percent of AUM in Japan** at best (scoring at least metric S123 and assuming all Scope 3 disclosures made are complete).

Japan: high levels of disclosure extend to the quality of reporting with some Scope 3 subcategory coverage.

Table 3
Disclosure coverage, Japan
the number of companies by
coverage and sector (ordered
by the estimated Scope 1 and 2
emissions of the latter

	S123 & S3's	CO2 & S3's	S123	C02	S12	Other	S12 %	CDP reporting	GHG Protocol
Nikkei 225	89	57	4	43	7	25	100%	84%	37%
Materials	12	10	-	7	3	3	45%	14%	4%
Utilities	5	-	-	-	-	-	16%	2%	0%
Industrials	16	16	-	16	-	6	13%	19%	8%
Energy	2	1	-	1	-	-	7%	2%	0%
Consumer Discretionary	15	8	3	1	-	1	6%	12%	7%
Consumer Staples	8	4	1	7	-	-	5%	6%	2%
Technology	15	7	-	2	-	4	4%	11%	8%
Communications	4	1	-	1	1	6	1%	4%	2%
Financials	5	6	-	5	2	4	1%	6%	2%
Health Care	4	3	-	3	-	1	1%	4%	3%
Real Estate	3	1	-	-	1	-	0%	2%	0%

Source: Bloomberg, TA analysis



Figure 3 Scope 3 in detail, Japan

the percentage of companies reporting against each subcategory of Scope 3 emissions

Source:

Bloomberg, TA analysis

Upstream

- 55 Purchased Goods and Services
- 52 Capital Goods
- 53 Fuel- and Energy-Related Activities not Included in Scope 1 or Scope 2
- 46 Upstream Transportation and Distribution
- 53 Waste Generated in Operations
- 49 Business Travel
- 53 Employee Commuting
- 9 Upstream Leased Assets

Downstream

- 23 Downstream Transportation and Distribution
- 13 Processing of Sold Products
- 42 Use of Sold Products
- 39 End-of-Life Treatment of Sold Products
- 10 Downstream Leased Assets
- 3 Franchises
- 12 Investments
 - % All figures are percentages

CHINA (CSI 300™)

At the corporate-level (annual reports and sustainability reports in the public domain), CSI 300 companies are far behind global and regional leaders.

China: corporate emissions disclosure is insufficient quality and quantity. Readiness and regulation need to align globally.

There is some limited disclosure of Scope 1 and 2 emissions but in reality, the market is not transparent and while there is some readiness for voluntary disclosure and some reporting to CDP as a vehicle, the ambition is far behind that of policy makers. Anecdotal evidence from industry associations suggests a lack of readiness from corporations.

There is next to no use of the GHG protocol in Scope 3 reporting in the public domain in China. Net zero policy makers, regulators, and asset owners and managers would have an impossible task to monitor the nature of Scope 3 emissions and we urge that the upcoming CSRC disclosure regulation be designed to this level of detail.

A passive asset manager would be able to calculate financed emissions for about **3 percent of AUM in China** at best (scoring at least metric S123 and assuming all Scope 3 disclosures made are complete).

Table 4

Disclosure coverage, China

the number of companies by coverage and sector (ordered by the estimated Scope 1 and 2 emissions of the latter)

	S123 & S3's	CO2 & S3's	S123	C02	S12	Other	S12 %	CDP reporting	GHG Protocol
CSI 300	4	-	2	19	65	210	100%	8%	1%
Materials	-	-	-	1	8	25	42%	0%	0%
Utilities	-	-	-	-	1	7	22%	0%	0%
Energy	-	-	-	2	4	6	17%	1%	0%
Industrials	-	-	1	8	6	26	11%	0%	0%
Health Care	-	-	-	2	9	27	2%	0%	0%
Consumer Discretionary	1	-	-	2	6	17	1%	1%	0%
Consumer Staples	-	-	-	1	3	22	1%	1%	0%
Technology	1	-	-	1	6	38	1%	1%	0%
Communications	-	-	-	1	2	5	1%	0%	0%
Financials	2	-	1	1	16	33	1%	3%	0%
Real Estate	-	-	-	-	4	4	0%	0%	0%

Source: Bloomberg, TA analysis



Scope 3 in detail, China

Given that Scope 3 accounting based on the GHG Protocol has little to no traction in China, emissions data on Scope 3 subcategories is insufficient. More generally, the absence of Scope 3 data is "chicken and egg". Chinese listed companies have not been encouraged to fully adopt the GHG protocol nor are they doing this voluntarily while parallel regulation is evolving. While the regulations are being built on the same principles as the GHG Protocol, it is not yet clear for listed companies how to handle Scope 3 emissions (see Section 4 and Table 7 below). Furthermore, using CDP, which is itself closely aligned to TCFD and, by definition, the GHG Protocol is also a challenge.

In this context, we are not presenting line by line data (with all of these categories at 0% or 1% of the CSI 300) but we do underline the fundamental requirement of asset owners and managers - that they will not want a GHG emissions accounting framework to be vastly different from the GHG protocol. Like any other accounting standard, it is important to be able to compare metrics like-for-like, not least for listed companies in leading equity indices.

HONG KONG (HANG SENG INDEX™)

Compared to its neighbours, Hong Kong is stuck in the middle. Its international market standing is driving high ambition and comprehensive regulation, which positioned it as an early adopter. But in practice, this has not yet led to meaningful levels of corporate emissions disclosure across the market, with inconsistent take up.

Hong Kong: financials are driving TCFD but emissions reporting gaps are clear

CDP reporting and GHG Protocol coverage appear to have some traction and the financial sector is a leader here, similarly to other geographies, as it adopts TCFD. However, like China, Scope 3 emissions reporting by subcategory is a major concern, especially Scope 3 investment and financed emissions. We hope this translates into improved performance in other sectors over the next corporate reporting cycle as mandatory reporting is on the horizon by 2025.

A passive asset manager would be able to calculate financed emissions for about **27 percent of AUM in Hong Kong** at best (scoring at least metric S123 and assuming all Scope 3 disclosures made are complete).

Table 5Disclosure coverage,
Hong Kong

the number of companies by coverage and sector (ordered by the estimated Scope 1 and 2 emissions of the latter)

	S123 & S3's	CO2 & S3's	S123	C02	S12	Other	S12 %	CDP reporting	GHG Protocol
Hang Seng	13	-	5	2	32	12	100%	28%	11%
Energy	-	-	-	-	4	-	52%	3%	0%
Utilities	1	-	-	-	3	-	14%	2%	2%
Financials	5	-	1	-	3	3	12%	9%	3%
Communications	1	-	-	-	2	2	7%	2%	2%
Consumer Staples	-	-	1	-	4	2	5%	2%	0%
Consumer Discretionary	2	-	-	1	6	1	4%	3%	2%
Industrials	-	-	2	-	1	-	3%	2%	2%
Real Estate	4	-	1	1	5	1	1%	3%	2%
Materials	-	-	-	-	1	-	1%	0%	0%
Technology	-	-	-	-	2	1	0%	3%	0%
Health Care	-	-	-	-	1	2	0%	0%	0%

Source: Bloomberg, TA analysis



Figure 4

Scope 3 in detail, Hong Kong

the percentage of companies reporting against each subcategory of Scope 3 emissions

Upstream

- 3 Purchased Goods and Services
- 2 Capital Goods
- 3 Fuel- and Energy-Related Activities not Included in Scope 1 or Scope 2
- 2 Upstream Transportation and Distribution
- 14 Waste Generated in Operations
- 5 Business Travel
- 5 Employee Commuting
- 0 Upstream Leased Assets

Downstream

- O Downstream Transportation and Distribution
- O Processing of Sold Products
 - 2 Use of Sold Products
- 0 End-of-Life Treatment of Sold
 Products
 - 0 Downstream Leased Assets
 - 0 Franchises
- 0 Investments
 - % All figures are percentages

O THE STATE OF EMISSIONS DISCLOSURE REGULATION

The following section provides an overview of Japan, China, and Hong Kong's current emissions disclosure regulations and what to expect from each market in the near future. This section is intended to act as a reference for compliance officers and portfolio managers looking to understand the detail and timeline of disclosure regulation in East Asia.

JAPAN

Japan was an early mover in the region on corporate emissions disclosure, introducing a mandatory greenhouse gas accounting and reporting system in 2005, which required corporations who consume more than 1,500 kl (crude oil equivalent) of energy per year or emit more than 3,000 t-C02 per year to report their GHG emissions against seven types of greenhouse gases stipulated in the Kyoto Protocol.^{8, 9}

The Japanese government has also developed Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain based on the GHG Protocol and set up a "supply chain emissions" information platform, ¹⁰ aiming to encourage companies to account for and disclose their Scope 3 emissions. As each industry has its own conditions in supply chain emissions accounting, the Japanese government has developed supplementary guidelines by industry. The disclosure coverage in these guidelines includes Scope 1, 2, and 3 emissions. The divisions of the supply chain other than the reporting company's own activities (upstream and downstream) are further subdivided into 15 categories and specific accounting methods are indicated for each category. ¹¹

Efforts to promote voluntary disclosure have most recently culminated into Japan Exchange Group's (JPX) Corporate Governance Code¹² which requires certain listed companies to enhance climate-related financial disclosures based on the TCFD recommendations, with effect from June 11, 2021 and Practical Handbook for ESG Disclosure¹³ which encourages listed companies to improve disclosure by following existing global frameworks (see Table 6). Prior to this, the Ministry of Economy, Trade, and Industry (METI) published the Guidance on Climate-related Financial Disclosures 2.0¹⁴ to present the first steps for the implementation of TCFD and the Ministry of Environment



published Environmental Reporting Guidelines¹⁵ which require reporting on the financial impact pertaining to any major environmental issue identified by the reporting entity.

The Tokyo Stock Exchange updated its "TDnet" (Timely Disclosure network) system¹⁶ in 2019, which notifies investors of releases of company information to allow the disclosure and publication of ESG information via the system to improve access.

Table 6
Corporate environmental
disclosure system
in Japan

Framework	Supervised Entities	Regulator	Requirement	Alignment
Greenhouse Gas Accounting and Reporting	Entities who consume more than 1,500 kl (crude oil equivalent) of energy per year or emit more than 3,000t-C02 per year must report their GHG emission levels	Ministry of the Environment	Mandatory	National inventory of Japan, IPCC guidelines
Supply chain Emissions Information Platform	Domestic and foreign corporations	Ministry of the Environment	Voluntary	GHG Protocol ISO/TR 14069 CDP
Carbon Emission Trade Market Disclosure	Entities who participate in the carbon emission trade market	Subnational Government	Mandatory	NA
Guidance on Climate-related Financial Disclosures 2.0	Companies and financial institutions	Financial Service Agency, Ministry of economy, trade, and industry	Voluntary	TCFD
Stock Exchange Disclosure	Listed companies	Financial Service Agency	Voluntary	TCFD

What to expect in the near term

The number of Japanese firms committed to reporting using TCFD guidance has grown significantly, from 44 to 527 in 2021. As a result, Japanese companies are the largest group of TCFD supporters worldwide, making up almost one quarter of the total.¹⁷

A new initiative to require climate risk disclosure from FSA is expected to cover around 4,000 companies, including those listed on the Tokyo Stock Exchange, and will likely be enforced from April 2022. ¹⁸ While this is a positive step, there remains a lack of detail from regulators on how companies will be expected to carry this out.

The International Financial Reporting Standards Foundation (IFRS) is expected to finalise the details of its framework on global sustainability reporting standards, which will be based on TCFD's, by June 2022, and Japan is expected to align its policy to this framework.



CHINA

China's data gap is coming to a head with regulators finally pushing for better corporate emissions disclosure. The Ministry of Ecology and Environment (MEE), China Securities Regulatory Commission (CSRC), and People's Bank of China (PBOC) all regulate disclosure for different types of companies and financial institutions.

In 2021, MEE and CSRC both updated frameworks requiring certain types of companies to adhere to stricter environmental disclosure regulation (See Table 7):

- Power companies included in China's carbon emission trading schemes (ETS) are explicitly required by MEE to disclose annual carbon emissions and accounting methodologies.¹⁹
- Listed companies and bond issuers that were subject to environmental penalties in
 the previous year must disclose environmental information related to investment
 and financing transactions. But for now, neither MEE nor CSRC has an official
 external notice elaborating on the detailed requirements on corporate emissions
 disclosure.
- Key polluting entities identified by MEE must disclose more environmental aspects annually including GHG emissions. More sectoral guidelines are to be developed.

Currently, it is only mandatory for certain types of companies to disclose GHG emissions, namely key polluting entities identified by MEE, power companies currently included in China's Emissions Trading Scheme (ETS), and listed companies and issuers that were fined in the last reporting year.

But as emissions disclosure is a new provision by MEE from December 2021, implementation is a work in progress.²⁰ For other listed companies, CSRC encourages disclosure of actions taken to reduce GHG emissions in annual reports.

On annual and sustainability reporting itself, Syntao Green Finance estimated (for 2020) that 27 percent of all A-share companies in China issued ESG reports, and of those, 86 percent were CSI 300 constituents. ²¹ But whilst many corporations are publishing ESG reports, the bulk of information remains qualitative, inconsistent, and unassured, according to JP Morgan, with quantitative metrics being particularly rare for environmental data. ²²



Table 7Corporate environmental disclosure system in China

Regula	atory instruments	Companies covered	Disclosure information	Format	Alignment
MEE	Corporates' environmental information disclosure rule (Dec 2021) ²³ Supporting format criteria (Dec 2021) ²⁴	Listed companies and bond issuers that were subject to certain environmental penalties in the previous year	Eight categories for annual disclosure: basic information environmental management pollutant generation carbon emissions planning for environmental emergencies environmental violations interim environmental disclosure other environmental information required by laws and regulations	Yearly envi- ronmental disclosure report, plus interim disclosure	Based on GHG Protocol ²⁶ , ²⁷
		Other entities identified by MEE, including key polluting entities ²⁵	Relevant listed companies and bond issuers must disclose investment and financing transactions related to climate change. Key carbon emitters included in the national carbon ETS are required to mandatorily disclose carbon emissions and their accounting methodology.		
CSRC		Listed companies	Key polluting entities (many of which are stateowned) are under stricter obligations to disclose more detailed information in annual reports. Listed companies must disclose environmental penalties received during the reporting period following 'comply or explain' approach. Listed companies are "encouraged" to disclose actions taken to reduce carbon emissions to support China's carbon peak and carbon neutrality target	A stan- dalone section of environ- mental and social issues in the annual report	NA
PBOC	Green finance evaluation plan for banks (May 2021) ²⁸	China's 24 major banks including national development banks and commercial banks	Banks' climate stress testing and climate risk management was included as indicators for macro prudential management	Quarterly since Q3 2021	NA
	Working document on enhancing environmental information disclosure for green finance pilots ²⁹	Commercial banks, asset owners, asset managers, and insurance companies	Financial institutions are encouraged to disclose their financed environmental impacts including climate risk management system and CO2 emissions (Scopes 1, 2, and 3). The disclosure work will start in green finance pilot regions ³⁰ . Scope 3 financed emissions accounting applies to certain asset types.	Annual reporting via special report or CSR report (not	Based on TCFD and GHG Protocol ³¹
	Guidance of environmental information disclosure for financial institutions (Aug 2021) ³²			mandatory)	



What to expect in the near term

More companies from other high-emitting sectors (petrochemical, chemicals, building materials, iron and steel, non-ferrous metals, paper, aviation) will be included in the ETS over time, which will require mandatory reporting of carbon emissions. At present, China's ETS only covers approximately 2,000 companies from the power sector. Scope 1 and 2 emissions are required to be disclosed, along with a transparent accounting methodology, but there remains no explicit requirement on Scope 3 disclosure.

We believe a strengthened emissions disclosure policy framework in China is likely in the coming years, with ESG disclosure taking form and corporate emissions disclosure becoming the norm. However, at present, steps taken by Chinese regulators are small and cautious:

- As China's A shares are included in global indices such as MSCI, China's regulators are
 moving to strengthen ESG disclosure. In January 2022, the Shanghai and Shenzhen
 Stock Exchanges updated their guidance on evaluating information disclosure for
 listed companies.^{33 34} The rewards for progressive disclosure will be regulatory
 references for listed companies' refinancing, M&A, and other capital market
 activities.
- To support China's 'dual carbon' targets (an emissions peak by 2030 and carbon neutrality by 2060), CSRC aims to strengthen carbon emission disclosure for listed companies (PBOC, CBIRC, and CSRC published the 14th FYP for financial standardisation and also referenced strengthening environmental disclosure for listed companies).³⁶ 36
- China's major banks are encouraged by the central bank to strengthen financed
 emissions accounting and climate risk management (still in a pilot stage and not
 mandatory, as shown in Table 7). This will, in turn, necessitate the need for listed
 companies to disclose emissions.
- China has expressed interest in being the host country for the new International Sustainability Standards Board (ISSB), which is an initiative from IFRS, once it launches. It is unclear how these overarching global standards will apply compared to China's local standards if adopted.³⁷

HONG KONG

The Hong Kong Stock Exchange (HKEX) is a leader in the region on environmental disclosure, requiring companies to publish ESG information annually and introducing a 'comply or explain' provision in 2016. These requirements have tightened over the years and Hong Kong's Green and Sustainable Finance Cross-Agency Steering Group (The Steering Group)³⁸ introduced a mandatory requirement for listed companies and financial institutions to disclose in accordance with TCFD standards by 2025.

The introduction of TCFD as the sole and mandatory framework will hopefully provide a roadmap for non-HK listed Chinese companies to follow suit, as well as become a model for Chinese regulators to simplify their increasingly complicated set of regulations. However, the implementation of TCFD should not obfuscate the need for more robust corporate emissions disclosure regulations. We also believe that the 2025 deadline can be brought forward due to Hong Kong's existing experience and resources for companies.



Regulator(s)	Main regulators that work in collaboration on disclosure for companies listed on HKEX: Hong Kong Stock Exchange (HKEX) Securities and Futures Commission (SFC) Hong Kong Monetary Authority (HKMA)				
Regulatory Instruments	 Appendix 27 ESG Reporting Guide³⁹ Guidance on Climate Disclosures⁴⁰ 				
Companies Covered	Listed companies on HKEXHong Kong-based financial firms				
Alignment	TCFDGHG Protocol				
Disclosure Information Required	The Steering Group announced TCFD-aligned disclosures from relevant sectors are to be mandatory by 2025.41				
	The ESG Reporting Guide highlights four KPIs, which companies need to disclose data and also create and disclose targets for each: Emissions Energy use Water use Waste reduction				
	 Emissions disclosure requirements include: Types of emissions and relevant data Scope 1 and 2 GHG emissions, and "where appropriate", intensity Scope 3 GHG emissions "where appropriate" Description of emissions targets and steps taken to achieve targets Policies related to emissions Compliance with relevant laws that relate to emissions Explanation on the methodology, assumptions, and/or calculation tools used to calculate emissions 				
Requirement	 Mandatory disclosure and a 'comply or explain' provision TCFD-aligned climate disclosure is to be mandatory for all listed 				

What to expect in the near term

Table 8

in Japan

Corporate environmental information disclosure system

HKEX's most recent change to emissions disclosure, mentioned above, requires disclosing Scope 1 and 2 emissions, with Scope 3 emissions disclosure only required 'where appropriate', which is yet to be defined. This took effect for companies with a fiscal year commencement after July 1, 2020.^{42 43}

companies and financial firms by 2025

In July 2021, HKMA issued draft guidance for certain authorised institutions (i.e., banks, restricted licence banks, and deposit-taking companies) should make climate-related disclosures aligned with the TCFD recommendations.⁴⁴

Also in 2021, HKEX and SFC began looking into whether they would adopt the IFRS Foundation's climate disclosure standard, ISSB, in addition to mandating that all disclosures are aligned with TCFD by 2025. 45 46 The November 2021 Guidance on Climate Disclosures began to incorporate specific recommendations from TCFD. 47



LOOKING FORWARD

Environmental policy change is happening fast in East Asia and with previously unthinkable levels of ambition.

We expect trends in mandatory corporate emissions disclosure to follow this speed and scale - for current regulations to be tightened and target deadlines to be expedited in the medium-term.

With new mandatory and voluntary disclosure regulations going live in the next year, Transition Asia will continue to track sectoral progress, leaders and laggards, and the policy making ambition that is driving this crucial step to achieving greater and more immediate progress on climate action.

For more information on what we do go to www.transitionasia.org or contact lauren@transitionasia.org



Data and disclaimers

Data analysis

Each corporate scores only once - against the highest metric possible (see Table 2 above).

CDP Reporting analysis is the most recent data available on Bloomberg, often before the latest fiscal year and where the score is >0 (the equivalent of a CDP Climate Score > F, where F is no disclosure).

GHG Protocol percentages are for corporations which have disclosed their GHG accounting methodology to CDP and are available on Bloomberg.

Percetanges are rounded and sums of individual percentages will have rounding errors to totals

Disclaimers

All data is sourced from Bloomberg and uses the BICS industry classification This analysis is for informational purposes only and does not constitute investment advice, and should not be relied upon to make any investment decision.

The Nikkei 225 is a registered trademark of Nikkei Inc.

The CSI 300 is a registered trademark of the China Securities Index Co. Ltd.

The Hang Seng Index is a registered trademark of Hang Seng Data Services Limited.

Glossary

AUM	Assets Under Management
CBIRC	China Banking and Insurance Regulatory Commission
CDP	Carbon Disclosure Project
CSR	Corporate Social Responsibility
CSRC	China Securities Regulatory Commission
ETS	Emissions Trading Scheme
FSA	Financial Services Agency
GHG	Greenhouse Gas
HKEX	Hong Kong Stock Exchange
НКМА	Hong Kong Monetary Authority
IFRS	International Financial Reporting Standards Foundation
IPCC	Intergovernmental Panel on Climate Change
ISSB	International Sustainability Standards Board
JPX	Japan Exchange Group
MEE	Ministry of Environment and Ecology
METI	Ministry of Economy, Trade, and Industry
PBOC	People's Bank of China
PCAF	Partnership for Carbon Accounting Financials
SBTi	Science-Based Targets initiative
SFC	Securities and Futures Commission
TCFD	Task Force on Climate-Related Financial Disclosures



Endnotes

- 1 Bokern, D. (2022, March 9). Reported Emission Footprints: The Challenge is Real. MSCI. https:// www.msci.com/www/blog-posts/reported-emissionfootprints/03060866159?utm_source=esg&utm_ medium=email&utm_campaign=net-zero-newsletter-03-19
- 2 2021 TCFD Report. Blackrock. https://www.blackrock.com/corporate/literature/continuous-disclosure-and-important-information/tcfd-report-2021-blkinc.pdf
- 3 企业温室气体排放核算方法与报告指南 发电设施 (2021年修订版).(2021, December). 中华人民共和国生态环 境部. http://www.mee.gov.cn/xxgk2018/xxgk/xxgk06/202112/ t20211202_962776.html
- 4 企业环境信息依法披露格式准则.(2022, January). 中华人民共和国生态环境部. http://www.mee.gov.cn/xxgk2018/xxgk/xxgk06/202112/t20211202_962776.html
- 5 证监会发布修订后的上市公司年度报告和 半年度报告格式准则. (2021, June 28). 中国证券监督 管理委员会. http://www.csrc.gov.cn/csrc/c100028/ cb25156c4913f4c9ea6b658cad8011f17/content.shtml
- 6 积极推动金融机构碳核算试点. (2021, November 30). 中国金融杂志 https://mp.weixin.qq.com/s/wJeMqBHozTzG_fY8uApoQA
- 7 2021 TCFD Report. Blackrock. https://www.blackrock.com/corporate/literature/continuous-disclosure-and-important-information/tcfd-report-2021-blkinc.pdf
- 8 新システム「省エネ法・温対法・フロン法電子報告システム(通称: EEGS(イーグス))」の稼働予定について.(2021, October 29). Ministry of the Environment Government of Japan. https://ghg-santeikohyo.env.go.jp/
- 9 平成 29 (2017) 年度温室効果ガス排出量の集計結果 https://ghg-santeikohyo.env.go.jp/result
- 10 Green Value Chain Platform. Ministry of the Environment Government of Japan. https://www.env.go.jp/earth/ondanka/supply_chain/gvc/en/
- 11 Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain. (2012, March). Ministry of the Environment and Ministry of Economy, Trade and Industry. https://www.env.go.jp/earth/ondanka/supply_chain/ gvc/en/files/GuideLine.pdf
- 12 Revisions of Japan's Corporate Governance Code and Guidelines for Investor and Company Engagement. (2021, April). Financial Services Agency. https://www.fsa.go.jp/en/news/2021/20210406.html
- 13 Practical Handbook for ESG Disclosure. (2020,

- March 31). Japan Exchange Group. https://www.jpx.co.jp/english/corporate/sustainability/esg-investment/handbook/b5b4pj000003dkeo-att/handbook.pdf
- TCFD Guidance 2.0 published. (2020, July 31). Ministry of Economy, Trade, and Industry. https://www.meti.go.jp/english/press/2020/0731_002.html
- 15 Environmental Reporting Guidelines 2018. (2019, April 12). Ministry of the Environment. https://www.env.go.jp/policy/j-hiroba/kigyo/2018Guidelines_E20190412.pdf
- 16 TDnet. Japan Exchange Group. https://www.jpx.co.jp/english/markets/paid-info-equities/reference/05.html
- 17 Why Japan is leading the TCFD wave. (2020, March 24). London School of Economics and Political Science, Grantham Research Institute. https://www.lse.ac.uk/granthaminstitute/news/why-japan-is-leading-the-tcfd-wave/
- 18 Japan to require 4,000 companies to disclose climate risks. (2021, October 5). Nikkei Asia. https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Japan-to-require-4-000-companies-to-disclose-climate-risks
- 19 MEE, the prime competent authority for regulating ETS in China, published a consultation paper on GHG emissions accounting methods for the power sector in December 2021, in which scope 1 and 2 accounting are required. http://www.mee.gov.cn/xxgk2018/xxgk/xxgk06/202112/t20211202_962776.html
- 20 MEE requires relevant entities to disclose environmental information for the previous fiscal year (from January 1 to December 31 of the previous year) by 15th March the following year and to report interim environmental information within 5 working days from the receipt of relevant legal documents.
- 21 An Evolving Process: Analysis of China A-share ESG Ratings 2020. (2020, June 30). Syntao Green Finance. http://www.syntaogf.com/Menu_Page_EN.asp?|D=8&Page_ID=359
- 22 Overcoming the ESG data challenge in China. JP Morgan. https://am.jpmorgan.com/be/en/asset-management/institutional/investment-strategies/sustainable-investing/esg-china/
- 23 企业环境信息依法披露管理办法. (2021, December 21). 中华人民共和国生态环境部. http://www.mee.gov.cn/xxgk2018/ xxgk/xxgk02/202112/t20211221_964837.html
- 25 MEE and municipal environmental bureaus annually updated the catalogue of key polluting entities, and information can be accessed publicly (http://permit.mee.gov.cn/perxxgkinfo/syssb/xkgg/xkgg!getRegisterInfo.action, https://www.mee.gov.cn/gkml/hbb/bgt/201712/t20171201_427287.htm)



- 26 MEE's standard was further developed based on NDRC's standards, which referred to GHG Protocol, http://openstd.samr.gov.cn/bzgk/gb/newGbInfo?hcno=C3AD3D9EA0DA87FEA0344B960CDF0073
- 27 工业企业污染治理设施污染物去除协同控制温室 气体核算技术指南. (2017, September). 中华人民共和国生 态环境部. http://www.mee.gov.cn/gkml/hbb/bgt/201709/ W020170914353687190487.pdf
- 28 银行业金融机构绿色金融评价方案. (2022, June 9). 中国人民银行. http://www.pbc.gov.cn/tiaofasi/144941/3581332/4265383/index.html
- 29 积极推动金融机构碳核算试点. (2021, November 30). 中国金融杂志 https://mp.weixin.qq.com/s/wJeMqBHozTzG_ fY8uApoQA
- China's central government decided to name Zhejiang, Jiangxi, Guangdong, Guizhou, and Xinjiang as green finance pilots. These regions, each with a different focus, will be allowed with more room for financial reform and innovation, to explore and gather "green finance experience". http://www.gov.cn/zhengce/2017-06/14/content_5202609.htm
- 71 积极推动金融机构碳核算试点. (2021, November 30). 中国金融杂志. https://mp.weixin.qq.com/s/wJeMqBHozTzG_fY8uApoQA
- 32 金融机构环境信息披露指南. (2021, August 4). 全国金融标准化技术委员会版权所有. https://www.cfstc.org/jinbiaowei/2929436/2980678/index.html
- 33 上海证券交易所上市公司自律监管指引第9号——信息披露工作评价.(2022, January 7). 上海证券交易所. http://www.sse.com.cn/lawandrules/sselawsrules/stock/main/listing/c/c_20220107_5679275.shtml
- 34 深圳证券交易所上市公司自律监管指引第11 号——信息披露工作考核.(2022, January 7). 深圳证券交易所. http://www.szse.cn/lawrules/rule/stock/general/supervise/t20220107_590557.html
- 35 研究推动上市公司加强碳排放信息披露. (2022, February 21). 环球. https://hope.huanqiu.com/article/46u7NNLK100
- 36 金融标准化"十四五"规划. (2022). 中国人民银行. http://www.pbc.gov.cn/ goutongjiaoliu/113456/113469/4467138/2022020818374845311. pdf
- Thang, Y., Wang, L., & Wang, S. (2021, September 21). Beijing Seeks to Host Global Board for Sustainability in Corporate Reporting. Caixin Global. https://www.caixinglobal.com/2021-09-29/beijing-seeks-to-host-global-board-for-sustainability-in-corporate-reporting-101782198.html

- The Steering Group is co-chaired by the Hong Kong Monetary Authority and the Securities and Futures Commission. Other members include: Environment Bureau, Financial Services and the Treasury Bureau, Hong Kong Exchanges and Clearing Limited, the Insurance Authority, and the Mandatory Provident Fund Schemes Authority.
- 39 Appendix 27 Environmental, Social and Governance Reporting Guide. HKEX Rules and Guidance. https://en-rules. hkex.com.hk/rulebook/environmental-social-and-governance-reporting-guide-0
- 40 Reporting on TCFD recommendations Guidance on Climate Disclosures. November 2021. https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/guidance_climate_disclosures.pdf?la=en
- 41 Strategic Plan to Strengthen Hong Kong's Financial Ecosystem to Support a Greener and More Sustainable Future. Green and Sustainable Finance Cross-Agency Steering Group, 17 Dec. 2020, www.hkma.gov.hk/media/eng/doc/key-information/press-release/2020/20201217e4a1.pdf.
- Questions relating to environmental, social and governance reporting. (2021, October 8). HKEX. https://en-rules. hkex.com.hk/sites/default/files/net_file_store/HKEX_FAQ_18. pdf
- Are investors sensitive to climate-related transition and physical risks? Evidence from global stock markets. (2022, December 10). Hong Kong Monetary Authority. https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2021/RM08-2021.pdf
- 44 Supervisory Policy Manual: Climate Risk Management. Hong Kong Monetary Authority. https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/GS-1_for_consultation_20Jul2021.pdf
- Green and Sustainable Finance Cross-Agency Steering Group reaffirms commitment to develop Hong Kong as a green finance hub. (2021, November 5). Hong Kong Monetary Authority. https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/GS-1_for_consultation_20Jul2021.pdf
- 46 Cross-Agency Steering Group announces next steps to advance Hong Kong's green and sustainable finance strategy. (2021, July 15). Hong Kong Monetary Authority. https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/GS-1_for_consultation_20Jul2021.pdf
- 47 Reporting on TCFD recommendations Guidance on Climate Disclosures. November 2021. https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/guidance_climate_disclosures.pdf?la=en