ESG data in China

RECOMMENDATIONS FOR PRIMARY ESG INDICATORS

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This technical report is a follow-up from the joint programme 'Fiduciary Duty in the 21st Century' by the PRI, UNEP FI and The Generation Foundation, and the recommendations of the report 'Investor Duties and ESG Integration in China'.

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EXECUTIVE SUMMARY AND POLICY RECOMMENDATIONS

This report aims to provide recommendations for China's future, mandatory environmental, social and governance (ESG) disclosure framework, prepared by its financial regulators. These recommendations, supported by discussions with Chinese and international stakeholders, intend to inform the China Securities Regulatory Commission (CSRC), the China Institute of Finance and Capital Markets (CIFCM) and its domestic stock exchanges on the following questions:

- What are international investors' expectations on China's ESG disclosure framework?
- Are international ESG disclosure standards compatible with China's corporate and investment landscape?
- What indicators should be part of China's ESG disclosure framework?

To answer these questions, the research team has analysed investors' needs regarding ESG data on Chinese domestic-listed companies and carried out a mapping exercise on existing disclosure practices in China and overseas.

Our research shows that both international and Chinese corporate ESG data disclosure practices lead to reporting based on a similar set of ESG indicators. However, the ESG data disclosed by companies is not standardised and not readily comparable across markets, industries and portfolios.

Work being undertaken by the CSRC is seeking to resolve this challenge.

Our main conclusion is as follows:

In order to provide usable and comparable ESG data to investors, **companies should be required to report on a standardised set of primary ESG disclosure indicators.** Primary ESG indicators correspond to key data points illustrating performance on the most common ESG topics. Making disclosure of basic ESG indicators mandatory for all listed companies will support:

- building a reliable ESG data series, which can be supplemented by other indicators over time;
- the provision of useful information to both Chinese and international investors to make investment decisions by integrating standard ESG data;
- enhanced management and board oversight of performance on key ESG issues within listed companies;
- and increasing investment in green and sustainable assets.

Setting a mandatory ESG data disclosure framework will contribute positively to the ongoing ESG disclosure standardisation process on an international level, including through the Corporate Reporting Dialogue. China can play a key role in terms of bringing ESG data standardisation to the global stage.

Our key recommendation is that the CSRC should introduce regulation, clarifying that ESG factors are financially material. Moreover, making it mandatory for all Chinese listed companies to disclose information on a standardised set of ESG indicators, could give the Chinese market long-term motivation for enhanced and high quality reporting on key ESG issues.

This regulation should include the following features[1]:

- a set of primary standardised indicators that are reported both in China and in international/national disclosure frameworks, that allow for comparability across industry sectors, portfolios and time-series;[2]
- a reporting methodology that specifies the scope, methods of calculation, minimum reporting thresholds, board oversight, monitoring and enforcement mechanisms, as well as guidance on how to assure the quality of reporting by third party auditors;
- publication of ESG data alongside financial indicators, based on the same reporting scope. Such data should be published in corporate annual reports, under the supervision of the board and should be linked to companies' business models, their corporate strategy (including financial and sustainability objectives and thresholds) and risk factors. Finally, ESG data should be analysed and explained in comparison to sectoral averages and historical performance;
- publication of all reported ESG data is made accessible to all investors (available free of charge, accessible online and available in a timely manner).

This research focuses on primary ESG indicators as the basic building blocks for the processes of ESG reporting and ESG integration.

We recommend a set of ESG indicators, which are widely reported by both international companies and Chinese companies, based on analysis of the most commonly reported ESG indicators by CSI300 companies. We also recommend that these quantitative metrics are complemented by related information on governance, strategy and risk management to explain quantitative performance, in order to make these metrics useful to investors.

Fig.1: Recommended indicators for China's mandatory ESG disclosure framework, mapped to SDGs, existing regulations and market practices

ESG TOPIC	PRIMARY INDICATORS	RELEVANT SDG[3]	RELEVANT REGULATIONS OR REPORTING PRACTICES
GHG emissions	Total GHG emissions (scope 1,2,3) in tonnes[4]	SDG 13 – Climate Action SDG 9 – Industry, Innovation and Infrastructure	Paris Agreement The 13th Five-year Plan for Controlling GHG Emissions[5]
Air pollutants	Air emissions of NOx, SOx, POP, VOC, HAP, PM in kg[6]	SDG 3 – Good Health and Well-being SDG 11– Sustainable Cities and Communities	Environment Law (2015)
Water	Total water withdrawal (m^3) % of water recycled	SDG 3 – Good Health and Well-being SDG 6 – Clean Water and Sanitation SDG 11– Sustainable Cities and Communities SDG 12 – Responsible Consumption and Production	Environment Law (2015)
Energy	Total energy consumed (GWh) % of renewable energy	SDG 7 – Affordable and Clean Energy	Environment Law (2015)
Waste (water, solid, hazardous)	Total waste from operations (tonnes) % of hazardous waste % of waste recycled Water emissions of Nitrogen, Phosphorus, Persistent Organic Pollutants, and Oxygen Demand (kg)	SDG 6 – Clean Water and Sanitation SDG 12 – Responsible Consumption and Production SDG 14 – Life below Water SDG 15 – Life on Land	Environment Law (2015)

1 This report will be followed by a short policy paper on best practice on ESG disclosure, expected in 2019.
2 The PRI has developed guidance with other investor groups on quality of reporting: https://www.unpri.org/news-and-press/pri-icgn-launch-discussion-paper-on-corporate-esg-reporting/3753.article.
3 This can be complemented with SDG indicator-level mapping: https://unstats.un.org/sdgs/indicators/indicators-list/
4 The reporting boundary of GHG emissions should also be disclosed (whether its Financial Control, Operational Control or Equity Share)
5 The plan issued by the State Council in 2016 put forward the establishment of GHG emission information disclosure system and encouraged companies to disclose GHG emissions information voluntarily, based on which, provincial-level regulations were issued such as http://www.sndrc.gov.cn/newstyle/pub_newsshow.asp?id=1027911&chid=100405 and http://fgw.sc.gov.cn/sfgw/ydqhbh/2018-03/01/content_69c8da3feee94dd49e373b5f89d449fc.shtml
6 For definitions see https://www.globalreporting.org/standards/gri-standards-download-center/gri-305-emissions-2016/

ESG TOPIC	PRIMARY INDICATORS	RELEVANT SDG	RELEVANT REGULATIONS OR REPORTING PRACTICES
Workforce	Workforce composition by gender Training hours per employee *Wages paid*[7]	SDG 1 – No Poverty SDG 5 – Gender Equality SDG 4 – Quality Education SDG 10 – Reduced Inequalities	Voluntary reporting by listed companies
Health and safety	Injury rate (TRIR) Fatality rate (for direct and contract employees)	SDG 8 – Decent Work and Economic Growth SDG 3 – Good Health and Well-being	COSHA (China occupational safety and health association) Member Convention
Governance quantitative indicators	% of women on the Board Decentralization of authority President/CEO CEO pay ratio	SDG 16 – Peace, Justice and Strong Institutions	Corporate Governance Code (2018)

Our research shows that **there is already expertise and competency on ESG disclosure in China**, with leading companies voluntarily reporting key ESG datapoints. Standardised ESG indicators, as part of a comprehensive ESG disclosure framework, will support the allocation of more capital to sustainable economic development.

Evidence demonstrates that mandatory disclosure regulations are more impactful than voluntary guidelines and can also create market efficiencies, as today companies are responding to multiple voluntary frameworks. Mandatory regulation will not only help to codify terminology (for greater consistency), it will also level the playing field on existing best disclosure practices rewarding first movers and the best social and environmental performers. To expand market uptake, the CSRC should support capacity building, investor education and encourage peer exchange on ESG reporting.

Standardised ESG data will act as a bridge to facilitate the two-way opening of China's investment market and allow the implementation of the Guidelines for Establishing a Green Financial System. The proposed indicators are relevant both for Chinese companies (based on data already required or voluntarily reported) and international investors, as they are also widely reported internationally and are mapped to international frameworks.

In addition to the primary indicators proposed in this report, we recommend the CSRC consider developing:

- industry-specific and activity-based disclosures including sector and activity-relevant material ESG issues;
- corporate accountability on general economic contribution (including taxes, wages, local development and investment);
- context-based performance assessment of ESG disclosure and targets to show how Chinese companies are aligning their strategies with globally agreed sustainability goals;
- forward-looking and scenario-based ESG disclosures, in alignment with the TCFD framework.[8]

7 This indicator has been included to ensure full coverage of SDGs, including SDG1 and 10.
8 These proposals are being discussed at other workstreams such as the UK-China TCFD working group and can be further developed with regards to ESG indicators and disclosure in subsequent research.

ESG INDICATORS, DISCLOSURE FRAMEWORKS AND INTEGRATION: DEFINITIONS

The following section provides definitions on ESG topics and ESG indicators. It discusses how ESG indicators fit into ESG disclosure frameworks and how such information is being used by investors to make informed investment decisions, taking into account all value drivers, including ESG factors.

Defining ESG indicators

Evidence shows that there is a clear business case for ESG reporting for investors and companies.[9] While multiple ESG reporting solutions and frameworks exist and continue to be developed, aligning key ESG indicators will benefit both companies and investors by reducing reporting misalignment, facilitating data comparability, and promoting the wider adoption of ESG integration.

ESG topics, or factors, are defined as specific environmental, social or governance topics or issues that can affect corporate and investment performance. They are numerous and ever-changing and include, for example: climate change, waste and pollution, health and safety, bribery and corruption.[10]

An *ESG indicator*, as discussed in this report, is specifically defined. It can be either quantitative or qualitative, but in both cases returns a specific value which, when reported by different entities, can be compared across time, industry sectors and portfolios.

Box 1 presents different ESG indicators that relate to the topic of water.

What we refer to as a *primary ESG indicator* is a datapoint that represents the key performance on a given ESG topic. Additional, specific ESG indicators can be derived from this primary ESG indicator. In the example given in Box 1, the primary ESG indicator is total water withdrawal.[11] ESG data comparability is hindered when companies choose to report on different indicators for the same ESG topic.

9 Investor agenda for corporate ESG reporting, PRI, 2018 https://www.unpri.org/news-and-press/pri-icgn-launch-discussion-paper-on-corporate-esg-reporting/3753.article

10 See https://www.unpri.org/pri/what-is-responsible-investment

11 A unique primary ESG indicator may not provide the level of detail needed to assess certain aspects of corporate performance (ex. in the case of water, knowing the total withdrawal does not inform on how much water is consumed, discharged, recycled, or how much of it is withdrawn in water stress areas). However, when a primary indicator is precisely defined, required and reported by companies, it provides a first key set of ESG data that can be effectively used by investors, and offer direct comparability across industries, portfolios and markets. Additional, more specific indicators can either be calculated (ex. water intensity) or further required for disclosure based on this data point (% of water discharged and recycled).

Box 1: Defining an ESG topic and indicators. The example of water in the GRI Standards[12]:

The GRI reporting standard "Water and Effluents" sets out disclosure requirements on the **topic of water**. This standard includes disclosures on the related management approach and topic-specific, quantitative disclosures:

- Management approach disclosures
    - Interactions with water as a shared resource
    - Management of water discharge-related impacts
- Topic-specific disclosures
    - Water withdrawal
    - Water discharge
    - Water consumption

Topic-specific disclosures ask for **specifically defined quantitative information**. For example, on water withdrawal, the following indicators are required:

a. Total water withdrawal from all areas in megaliters, and a breakdown of this total by the following sources, if applicable:

i. Surface water;
ii. Groundwater;
iii. Seawater;
iv. Produced water;
v. Third-party water.

b. Total water withdrawal from all areas with water stress in megaliters, and a breakdown of this total by the following sources, if applicable:

i. Surface water;
ii. Groundwater;
iii. Seawater;
iv. Produced water;
v. Third-party water, and a breakdown of this total by the withdrawal sources listed in i-iv.

c. A breakdown of total water withdrawal from each of the sources listed in Disclosures 303-3-a and 303-3-b in megaliters by the following categories:

i. Freshwater (≤1,000 mg/L Total Dissolved Solids);
ii. Other water (>1,000 mg/L Total Dissolved Solids).

d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.

Source: GRI

12 See https://www.globalreporting.org/standards/gri-standards-download-center/

ESG disclosure frameworks

In order for ESG data to be 'meaningful' – and to avoid companies treating ESG disclosure reporting as a box ticking exercise – such reporting has to be integrated within corporate processes and performance assessments. Moreover, it will play a role in measuring and understanding overall corporate performance, business risks and opportunities, both by companies and investors.

The Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) defined four components that companies should consider when reporting on climate-related performance:

1. governance
2. strategy
3. risk management
4. metrics and targets

While the TCFD framework has been designed specifically for financial climate-related disclosures, the disclosure structure based on those four components is common to most reporting frameworks.

Primary ESG indicators, as metrics, are therefore only one aspect of the corporate reporting process.

In order to provide meaningful information, ESG metrics need to be associated with targets, or thresholds. Although these are basic data points, primary indicators are needed to build more complex analyses, including investment strategies, corporate performance analysis etc., and are essential for sustainable investments.

What are the uses of ESG data by investors?

In the *ESG Integration Framework*[13], the PRI defines three levels of integration of ESG data and analysis by investors. These are:

- Research, including analysis and engagement
- Security valuation
- Portfolio management, construction and asset allocation

There is no singular ESG integration technique. Each investment firm defines its own unique approach and methodology. However, all ESG integration techniques do use some type of ESG information, including quantitative ESG metrics. For example, primary indicators are fed into research processes where analysts compare traditional financial data with ESG data; forecasting financials, adjusted for ESG information, during equity valuations, in addition to calculating the ESG profile of a portfolio (i.e., quantifying the water or carbon footprint of an individual company).

If the primary ESG metrics that feed into these analyses are not standardised or comparable, a fundamental input in the ESG integration process is flawed. Although there are techniques to estimate some types of missing or untrustworthy data (for example, CO_2 emissions can be estimated with average industry and CO_2 country data), the lack of reliable ESG metrics published by companies weakens the ESG integration process, thereby negatively impacting the potential to develop a sustainable financial market.

13 See https://www.unpri.org/the-esg-integration-framework/3722.article

INVESTOR NEEDS, IN TERMS OF ESG DISCLOSURE FROM LISTED COMPANIES

ESG reporting informs investors about corporate performance. Investors look for information on corporate strategy and objectives, execution process, major risks, key performance metrics and progress over time.[14] **To ensure an efficient ESG integration process, ESG data needs to be standardised. It also needs to be comparable across industry sectors, time and portfolios, using internationally recognised disclosure frameworks and utilise the same segmentation principles as those used in financial statements.**[15]

Investor expectations for an ESG disclosure framework

Investors have common expectations on ESG reporting in most markets, although depending on the type of investor the use of ESG data may vary.[16] Both in China and globally, investors increasingly believe that ESG factors will affect share prices in the long term. According to the 2017/18 CFA-PRI survey, 65% of global analysts (61% in China) believe that governance issues will affect share prices by 2022. Environmental and social issues accounted for 52% and 46% of analyst responses (53% and 47% respectively in China).[17]

Discussions held within China to understand what investors expect to be the most important features of the country's upcoming ESG disclosure framework found overall consensus on the key characteristics, as follows:

- **Data comparability and standardisation**: companies should use standard indicators and refer to existing international and regional frameworks. Comparability with the Hong Kong Listing Rule requirements (appendix 27) was quoted;
- **Clear scope of reporting and transparent methodology**: applicable to all indicators of the disclosure framework and aligned with existing methodologies to ensure consistency over time;
- **Data stability over time**: companies should use the same scope and methodologies to build coherent time series so that investors can compare an individual company's data to its historical performance;
- **Integration of pre-existing ESG data**: this should include alignment with existing requirements at stock exchanges;
- **Data accessibility**: analysts should be able to access all published data and have access to that data in raw format, including data already reported through existing channels, such as government data repositories;
- **Strategic approach**: material ESG indicators need to be anchored in corporate strategy. Companies need to understand why they have to monitor and report on these issues and respect the fact that ESG data needs to be explained in the context of corporate performance. Investors want to avoid a box-ticking and compliance-only-driven approach;
- **Oversight by senior management**: in addition to management of ESG reporting by dedicated staff, senior management should also be accountable for the report. This is to ensure good quality control and to demonstrate the company has a sound understanding of ESG issues and how they relate to its corporate strategy (including data analysis and explanation of quantitative metrics compared to sector averages and historical performance);
- **Strong enforcement**: consider penalties for misreporting;
- **Verified through basic assurance standards**.

While the list of ESG issues and uses of ESG information varies among investors, data comparability, standardisation and stability over time are deemed to be key features; even if the reporting framework includes only a limited number of indicators.

14 R.Sullivan, *Valuing corporate Responsibility. How do investors really use corporate responsibility information?* (2011)
15 Investor Agenda for Corporate ESG Reporting, PRI and ICGN, 2018
16 See https://docs.wbcsd.org/2018/10/The_ESG_disclosure_judgement_handbook.pdf
17 See https://www.unpri.org/investor-tools/the-cfa-institutes-esg-survey/2739.article . See also 2019 PRI/CFA report on APAC region https://www.unpri.org/investor-tools/ESG-integration-in-asia-pacific-markets-practices-and-data-/4344.article

Challenges with non-standardised ESG data

A lack of standardisation with ESG data makes it difficult for investors to integrate ESG information in their investment decision-making. Low quality ESG data is deemed as the main barrier to ESG integration in financial analysis.[18] According to the PRI/CFA survey, the main factors limiting investors' ability to use ESG data are:[19]

- Lack of appropriate quantitative information (55%)
- Lack of comparability across firms (50%)
- Low data quality and lack of assurance (45%)

In the case of China, non-standardised voluntary ESG data disclosure leads to the following issues:[20]

- ESG data is mostly policy-based, not quantitative;
- Data sets are varied in scope and material issues across companies;
- Non-standardised data cannot be aggregated;
- Lack of quantitative data impedes stress-testing in climate risk assessment scenario work, such as that led by the TCFD pilot in China;
- Voluntary or comply-or-explain frameworks can lead to cherry-picking and data manipulation. Companies tend to report data based on what is already available and omit material non-public information in their disclosures;
- Reporting is inconsistent, with no explanation on how ESG data changes over time;
- Potential legal barriers in disclosing ESG data without clear regulatory guidance.

While both Chinese and international investors believe ESG issues affect corporate performance, in China, fewer investors integrate ESG issues in equity analysis. Globally, governance issues are 'often/always' integrated into equity investment analysis by 56% of investors; this compares to 37% for environmental issues and 35% for social issues. By contrast, in China 33% of investors 'often/always' integrate G issues, while only 7% integrate E and S issues.[21]

Mandatory versus voluntary?

Evidence demonstrates that mandatory disclosure regulations are more impactful than voluntary guidelines. A 2016 PRI study on the 50 largest economies found that government-led mandatory ESG reporting improves corporate risk management.[22] As analysed by the WBCSD, "information a company is obliged to report in conformance with mandatory requirements is more likely to be prepared according to a recognized standard and to support assurance activities"[23].

A mandatory reporting framework requiring disclosure of standardised primary ESG indicators, and responding to the investor expectations quoted above, will support ESG integration in investment decision making on a broader scale in China.

18 Beyond the Balance Sheet, IFC, 2018
19 CFA/PRI Survey, 2017/18 https://www.cfainstitute.org/-/media/documents/survey/esg-survey-report-2017.ashx
20 Based on feedback collected by the project team among investors in China in 2018, related disclosure work at PRI, and KPMG assessment in The ESG Journey begins, 2018
21 See https://www.unpri.org/investor-tools/the-cfa-institutes-esg-survey/2739.article
22 See PRI's Global Guide to Responsible Investment Regulation https://www.unpri.org/download?ac=325
23 See https://docs.wbcsd.org/2018/10/The_ESG_disclosure_judgement_handbook.pdf

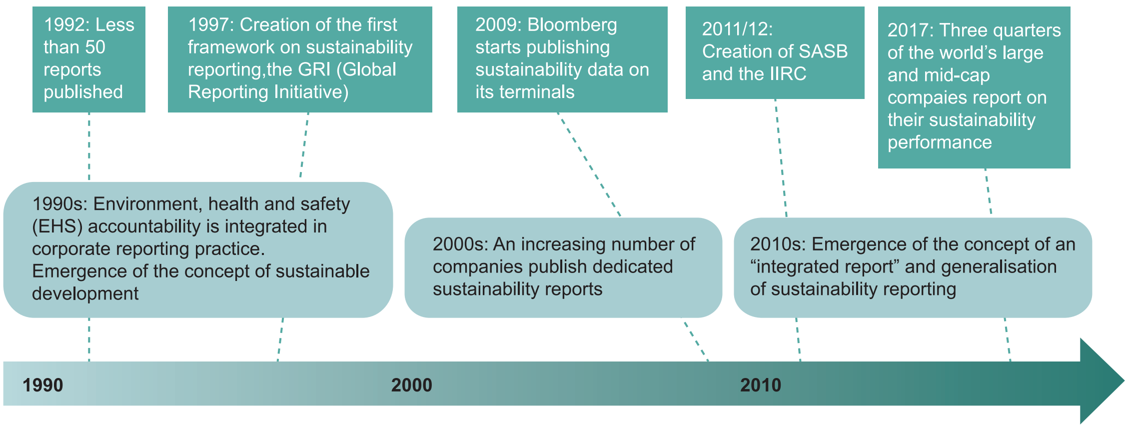
OVERVIEW OF INTERNATIONAL ESG DISCLOSURE FRAMEWORKS AND COMMONLY REPORTED ESG INDICATORS

This section provides a brief history of ESG disclosure and the converging market practice around commonly reported primary ESG indicators.

ESG disclosure to account for externalities and sustainable development

International ESG reporting frameworks have been developed since the 1990s, including the Global Reporting Initiative created in 1997, the CDP and the UN Global Compact in 2000, the International Integrated Reporting Council (IIRC) in 2011 and the Sustainability Accounting Standards Board (SASB), which launched in 2012.

Fig.2: History of ESG reporting practice and frameworks



Source: GRI, KPMG.

These frameworks have all been developed based on the increasing consensus that:

- ESG issues affect corporate performance;
- companies need to account for externalities to their stakeholders, and
- economic development needs to be aligned with broader social and environmental goals.

In China, a similar vision drives the development of a mandatory environmental framework: building an ecological civilisation and a green financial system will require accounting for negative externalities and promoting an environmentally friendly economy.

Existing frameworks: from financial materiality to societal impact

More than 1,000 reporting requirements, guidance and supporting materials have been developed by different national and supranational bodies over the past 25 years, according to CDSB.[24] Different expectations have shaped the most prominent disclosure frameworks:

- Investors have increasingly considered material ESG issues to play a part in corporate performance, and some reporting frameworks, such as SASB, have been designed with financial materiality in mind. SASB provides a limited number of indicators for each industry, on the basis that they are related directly to corporate financial performance.[25]
- Other frameworks, such as the GRI Standards, account for a broader set of issues and allow for reporting to a broader set of stakeholders (including governments, employees, customers etc.).
- Adoption of the UN Sustainable Development Goals in 2015 has provided a globally agreed list of the world's most pressing environmental, social and economic issues, focusing on business external impacts and risks to people and the environment that affect not only investor portfolios but also value chains and the broader objectives of society.[26]

The convergence of ESG metrics

The current trend is towards shared standards at the international level. The Corporate Reporting Dialogue aims to establish a common ground between different reporting frameworks, stretching from financial materiality to broader societal impact.[27] One of the key takeaways of the Global Investor Organisations Committee is for companies to disclose standardised ESG information at a basic level, based on current ESG frameworks and indicators.[28]

For large asset owners (universal owners), corporate performance and the global Sustainable Development Goals are connected:[29]

- The costs from environmental or climate-related events that have been identified as universal concerns will come back into investors' portfolios as risk premia, taxes, inflated input prices and physical costs associated with disasters.
- Social concerns, such as poverty and inequality, can lead to societal and political unrest and instability. This can also create business risks that could reduce future cash flows and dividends.
- Macro financial or even systemic risks that may materialise from the failure of corporations to achieve the SDGs could have major negative consequences for financial returns.[30]

The increased practice of ESG integration among investors and the widespread practice of ESG reporting among corporations have led to the adoption of similar metrics across markets. According to the IFC, eight environmental and social topics are reported through similar indicators across ESG reporting frameworks, financial analysis frameworks, information providers, regulatory and investor reporting initiatives.[31] This analysis is confirmed by the World Business Council for Sustainable Development and the Reporting Exchange database[32], analysing national and stock exchange-led reporting requirements. The most common primary indicators are presented below in Fig.3.

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24 In addition, 900 resources, methodologies, tools and guidance documents that are influencing companies approaches to ESG disclosure. Sources: CDSB, WBCSD.
25 In total, however, SASB has over 1000 indicators for 77 sector standards.
26 *The SDG Investment Case*, PRI, 2017 https://www.unpri.org/sdgs/the-sdg-investment-case/303.article
27 See https://corporatereportingdialogue.com/
28 Investor Agenda for Corporate ESG Reporting, PRI and ICGN, 2018 https://www.unpri.org/news-and-press/pri-icgn-launch-discussion-paper-on-corporate-esg-reporting/3753.article
29 Addressing Investor Needs on SDG reporting, PRI, 2018 https://www.unpri.org/news-and-press/the-sdgs-in-corporate-reporting-what-matters-to-investors-ten-recommendations-to-meet-investor-needs-on-sdg-reporting/3433.article
30 Although primary ESG indicators provide a basic performance assessment on such topics, forward-looking scenario-based analysis is needed to fully capture such risks.
31 Beyond the Balance Sheet, IFC 2018
32 See www.reportingexchange.com

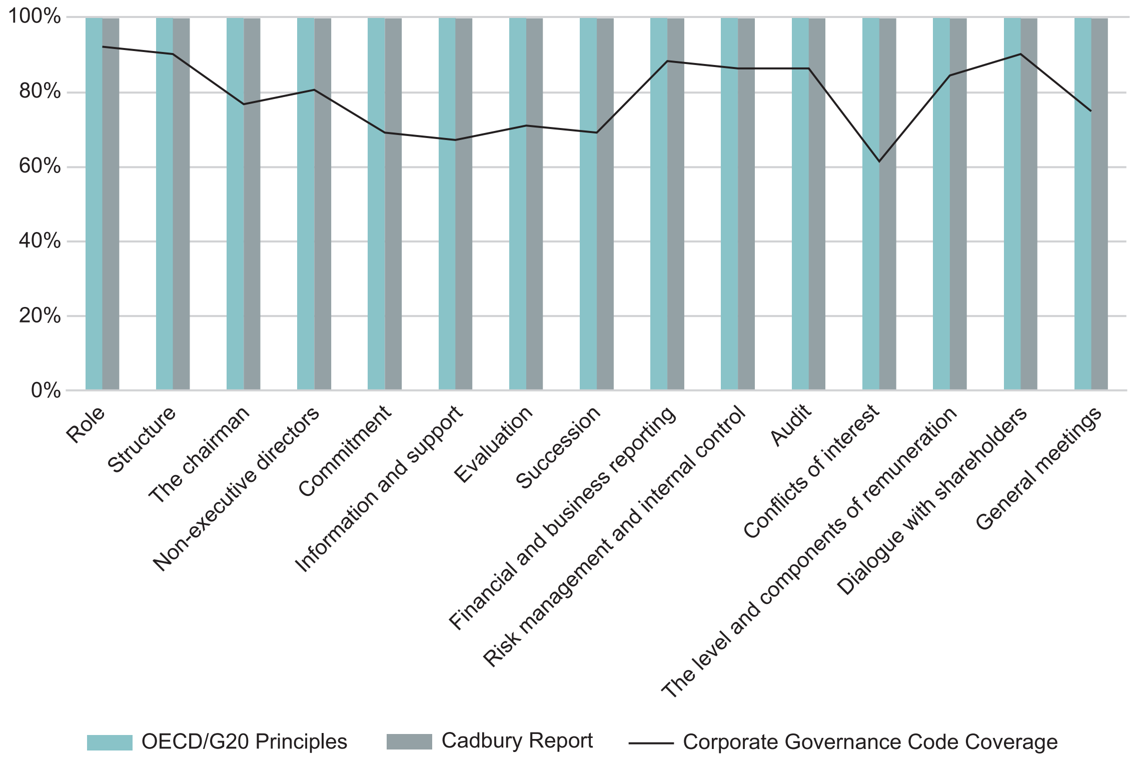
Fig.3: Most common primary environmental and social indicators

ESG TOPIC	RELATED INDICATORS	FREQUENCY OF USE IN MARKETS	FREQUENCY OF REPORTING REQUIREMENTS
GHG emissions	GHG emissions (scope 1,2) in tonnes GHG intensity (GHG/sales)	92%	68%
Water use	Water used (m^3) % of water recycled % of water used in water stress areas Water intensity (water use/sales)	92%	63%
Energy efficiency and mix	Energy consumed (GW) % of renewables Energy intensity (energy consumed / sales)	85%	64%
Waste (water, solid, hazardous)	Waste from operations (tonnes) % of hazardous waste % of waste recycled Waste intensity (waste / sales)	77%	87%
Workforce composition and diversity	Workforce composition by gender	69%	40%
Employee health and safety	Injury rate (TRIR) and fatality rate for direct and contract employees	100%	84%
Recruitment / Turnover	Voluntary and involuntary employee turnover rate by major employee category	62%	24%
Collective bargaining agreements	% of active workforce covered under collective bargaining agreements	62%	30%

Frequency of use represents a selection of E & S metrics with high reporting frequency (IFC, *Beyond the Balance Sheet,* 2018). The reporting requirements column shows the percentage of countries out of 70 included in the Reporting Exchange database with reporting requirements on the subject matter, including national frameworks (WBCSD, The Reporting Exchange, data as of 02.05.2019 https://www.reportingexchange.com/).

There is a similar convergence on corporate governance topics. Research by the WBCSD on 52 national corporate governance codes found that most corporate governance codes reference 70% or more of governance subject topics and are aligned with international codes, such as the G20/OECD Corporate Governance Principles and the ICGN's Global Governance Principles, as shown in Fig.4. [33]

Fig.4: Most reported governance topics



Research based on 52 national corporate governance codes. Source: WBCSD, The Reporting Exchange, data as of Q1 2018. https://docs.wbcsd.org/2018/03/CDSB_Report_to_Corp_Governance.pdf

33 See https://www.wbcsd.org/Programs/Redefining-Value/External-Disclosure/The-Reporting-Exchange/Resources/Corporate-governance-and-harmonization

Analysis on three specific examples of ESG disclosure requirements, two backed by stock exchanges (Hong Kong and Malaysia) and one government-led (France) shows a convergence around the same common metrics. Fig.5 details common environmental and social metrics in those frameworks, regrouped by GRI Standards.

Fig.5: Common E&S indicators between three ESG disclosure frameworks and GRI Standards

HONG KONG	MALAYSIA	FRANCE
Energy		
KPI A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility) KPI A2.3 Description of energy use efficiency initiatives and results achieved	Total energy consumed (kWh/MWh). Use of renewable energy (kWh/MWh Energy intensity – kWh/MWh per employee / man-hours / square meter Amount of reduction in energy consumption achieved as a result of conservation and efficiency initiatives	Sustainable use of resources: energy consumption, measures taken to improve energy efficiency and the use of renewable energies
Water		
KPI A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Percentage of water recycled and reused Total volume of water used	Sustainable use of resources: water consumption and water supply in accordance with local constraints
Emissions		
KPI A1.1 The types of emissions and respective emission data KPI A1.2 Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Scope 1, 2 and 3 emissions in tonnes of CO_2 equivalent NOX emissions in g/Nm^3 per product or operating hour SOX emissions in g/Nm^3 per product or operating hour Particulate emissions (mg) per operating hour (from measurement)	Climate change: greenhouse gas emissions Pollution and waste management: measures to prevent, reduce or repair discharges into the air, water and soil seriously affecting the environment;
Waste		
KPI A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). KPI A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). KPI A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Total weight or volume of hazardous waste generated Total weight or volume of non-hazardous waste generated Total weight or volume of waste sent to landfill for disposal Ratio of waste to production Ratio of waste (e.g. empty fruit bunches; kernels) repurposed and disposed Amount of drilling waste and strategies for treatment and disposal Oil spills	Pollution and waste management: measures to prevent, reduce or repair discharges into the air, water and soil seriously affecting the environment;
Occupational Health and Safety		
KPI B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored KPI B2.1 Number and rate of work-related fatalities KPI B2.2 Lost Days due to work injury	Number of work-related injuries per annum Rate of work-related injuries per annum Number of work-related fatalities (includes employees and contractors) Accident frequency rate Severity rate	Health and safety: the balance sheet of the agreements signed with the trade unions or the representatives of the personnel with regard to health and safety at work Health and safety: accidents at work, in particular their frequency and seriousness, as well as occupational diseases

HONG KONG	MALAYSIA	FRANCE
Training and Education; employee retention		
KPI B3.2 The average training hours completed per employee by gender and employee category.	Labour practices: Average hours of training per annum per employee by employee category. Labour practices: Total number of employee turnover (broken down by employee type) during the reporting period, by: (a) age group; (b) gender.	Training: the total number of training hours
Diversity, Equal Opportunity and Non-discrimination		
KPI B1.1 Total workforce by gender, employment type, age group and geographical region Aspect B1: Employment General Disclosure	The percentage of employees per employee category in each of the following diversity categories: (a) gender; (b) age group; and (c) ethnicity. Number of discrimination incidents	Promotion and observance of the provisions of the fundamental conventions of the International Labour Organization relating to: the elimination of discrimination in employment and occupation. Equal treatment: measures taken to promote the employment and integration of people with disabilities
Child Labour, Forced and Compulsory Labour		
KPI B4.2 Description of steps taken to eliminate such practices when discovered.	Number of child labour incidents. Number of forced or compulsory labour incidents	Promotion and observance of the provisions of the fundamental conventions of the International Labour Organization relating to: the effective abolition of child labour and the elimination of forced or compulsory labour

Only common topics and metrics to all three frameworks have been selected, and regrouped by GRI Standards' topics. Source: gri.org, legifrance.gouv.fr, HKEX and Malaysia stock exchange

OVERVIEW OF ESG DISCLOSURE IN CHINA

ESG disclosure in China is structured by mandatory disclosure requirements on pollutants, voluntary guidance by stock exchanges and voluntary ESG disclosure by listed companies through annual financial and sustainability reports. Although the mandatory part is limited to air, water and solid pollutants, overall ESG data reported is comparable to what companies report internationally. However, the lack of standards and limited access to mandatory data impede the quality of ESG data in China.

Policy requirements on ESG disclosure

Policies of environmental regulatory authorities

In the past decade, China's environmental regulatory authorities have successively issued several policy documents, which propose specific requirements on environmental information disclosure of listed companies:

- *Measures for the Disclosure of Environmental Information* (2007) requires enterprises who generate over-discharge of pollutants to publicly disclose environmental information.
- *Guidance on Strengthening Environmental Protection Supervision and Administration of Listed Companies* (2008) proposes that listed companies actively explore how to put in place a process to disclose environmental information.
- *Measures for the Disclosure of Environmental Information of Enterprises and Public Institutions* (2014) requires key polluters to disclose environmental information.

The amended *Environmental Protection Law* implemented in 2015 clarified the responsibility in environmental information disclosure on 'key pollutant discharging units'. According to article 55, key pollutant discharging units shall disclose the following to the public 'in an honest way for social supervision':

- the name of its main pollutants;
- discharge pattern;
- discharge concentration and total amount;
- over-discharge conditions and
- construction & operation of pollution control facilities.

As prescribed in article 62, if key pollutant discharging units contravene the provisions of the law by failing to disclose the environmental information, or disclosing said information dishonestly, the competent environmental protection department of the local people's government, at or above county level, shall order them to make this information public and impose a fine.

In December 2017, *Provisions on Managing the Lists of Key Pollutant Discharging Units* ("Provisions") was issued by the Ministry of Environmental Protection. It establishes five categories of key pollutant discharging units: water, atmosphere, soil, acoustic environment and other key pollutant discharging units.

The same company may belong to different categories of key pollutant discharging units for different kinds of discharged pollutants. Based on the Provisions, each year municipal environmental protection departments shall select companies and public institutions that discharge large amounts of pollutants - including toxic and harmful pollutants and other pollutants with high environmental risks - and determine the list of key pollutant discharging units in their respective administrative region for the next year.

Policies of financial supervision authorities

In 2016, seven ministries and commissions including The People's Bank of China published the *Guidelines for Establishing the Green Financial System,* which points out that a mandatory system for disclosing environmental information by listed companies shall be established.

The schedule outlined a phased roll out of work: firstly, those listed companies who belong to different categories of key pollutant discharging units listed by the former Ministry of Environmental Protection are mandated to disclose environmental information from 2017 onwards; secondly, "semi-compulsory" environmental information disclosure will be implemented in 2018, and enterprises failing to disclose relevant information must explain the reason(s) thereof; thirdly, all listed companies must disclose environmental information by 2020.

In 2016, the China Securities Regulatory Commission ("CSRC"), amended standards for the content and format of annual reports and semi-annual reports published by Chinese listed companies. Key pollutant discharging companies and the subsidiaries thereof, as published by environmental regulatory authorities, must disclose relevant environment information.

In December 2017, the CSRC issued *Standards for the Content and Formats of Information Disclosure of Companies*

Publicly Issuing Securities No.2 - Content and Formats of Annual Reports (Revised in 2017). This prescribes that if listed companies disclose environmental information in the form of interim reports during the annual reporting period, any subsequent progress or changes should be illustrated. Companies that do not belong to one of the five categories of key pollutant discharging units may disclose their environmental information by referring to the above requirements, and are required to fully explain the reason(s) if they fail to do so. Companies are also encouraged to voluntarily disclose any relevant information which is conducive to the protection of ecology, prevention of pollution and/or the performance of its environmental responsibilities.

In September 2018, the CSRC issued the amended *Code of Corporate Governance for Listed Companies in China* ("Code"). As per article 86, "*While maintaining the listed company's development and maximizing the benefits of shareholders, the company shall be concerned with the welfare, environmental protection and public interests of the community in which it resides and shall pay attention to the company's social responsibilities*."

According to article 87, "*A listed company shall truthfully, accurately, completely and timely disclose information as required by laws, regulations and the company's article of association*."

Policies of stock exchanges

In 2006, the Shenzhen Stock Exchange issued *Guidelines on Listed Companies' Social Responsibility*, requiring listed companies to actively fulfil their social responsibilities, assess the performance of their corporate social responsibilities on a regular basis and voluntarily disclose corporate social responsibility reports. In 2010, the *Guidelines on Standard Operating of Listed Companies* provided further guidance and standards for listed companies to disclose information on social responsibilities.

In 2015, the Shenzhen Stock Exchange issued *Guidelines on Standard Operations of Small and Medium-Sized Boards of Listed Companies*, which stipulates that when a listed company suffers a major environmental pollution problem, it shall, in a timely manner, disclose the cause of environmental pollution, the impact on the company's performance, the impact of environmental pollution and measures taken by the company to rectify the situation.

In 2008, the Shanghai Stock Exchange issued the *Notice on Strengthening the Social Responsibilities of Listed Companies* and the *Guidelines for the Environmental Information Disclosure of Listed Companies*.

Under these guidelines, listed companies are required to strengthen the fulfilment of social responsibilities and disclose their practices and achievements while fulfilling social responsibilities, in terms of employee safety, product liability, environmental protection, etc. It also proposes specific requirements for listed companies while disclosing environmental information.

At the end of 2008, the Shanghai Stock Exchange issued the *Guidelines for the Preparation of the Report on Performance of Corporate Social Responsibility*, which points out that listed companies shall disclose their work on facilitating environmental and ecological sustainability, such as how to prevent and reduce pollution, how to preserve water resources and energy, how to ensure sustainability and how to protect and improve the biodiversity of the region in which they reside and operate from.

ESG disclosure in China is therefore defined by three different sets of policies and guidance:

- The Environmental Protection Law has clarified the responsibility in environmental information disclosure of key polluting companies;
- The CSRC has issued policies regulating standards, content and formats for information disclosure of listed companies;
- The Shanghai Stock Exchange and Shenzhen Stock Exchange have successively issued guidelines on environmental and social information disclosure of listed companies, which further regulate aspects of environmental protection and pollution reduction disclosed by listed companies.

Voluntary ESG disclosure by listed companies

Overview

In August 2017, the former Ministry of Environmental Protection (currently the Ministry of Ecology and Environment)[34] announced that over 90% of state-owned listed companies[35] have disclosed environmental information. However, some companies still fail to partially disclose or fully disclose management information as per the regulations, or, if they do, their disclosures are either not standardized or focus only the positives and not the negatives.

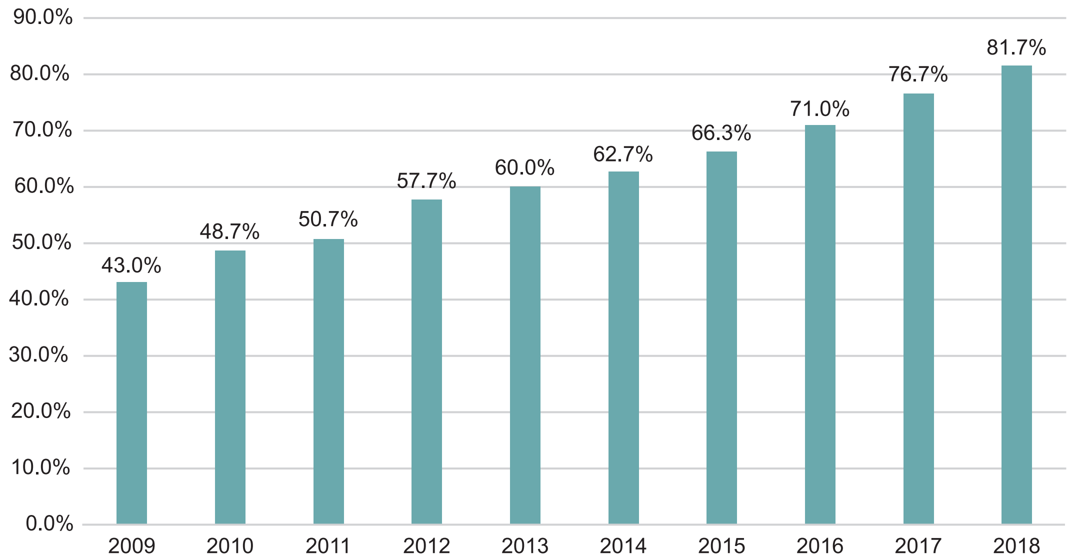
According to Shanghai Stock Exchange data, among 1,420 listed companies disclosing an annual report for 2017, 855 (over 60%) disclosed *some* environmental information; an increase of 235% on the previous year. Among them, 386 were categorised as key pollutant discharging units and 439 disclosed voluntarily.

In 2018, according to the Shenzhen Stock Exchange, 666 companies (32%) disclosed environmental information in their semi-annual report; a 40% increase on 2017. Some 215 listed companies voluntarily disclosed more environmental information in their semi-annual reports in 2018, including the establishment and implementation of environmental responsibility systems, investment in to environmental protection, the acquisition of environmental management system certificates and clean production verification.

Analysis of CSI300 voluntary ESG data disclosure

The following analysis focuses on the CSI300, the stock market index based on the top 300 companies listed on the Shanghai and Shenzhen stock exchanges, and voluntary ESG data disclosure practices through the medium of annual sustainability reports. By end of September 2018, 82% of CSI300 index constituent stock companies had published some ESG data and analysis on their 2017 performance.

Fig.6: Growth of voluntary ESG disclosure through sustainability reports of CSI300 companies



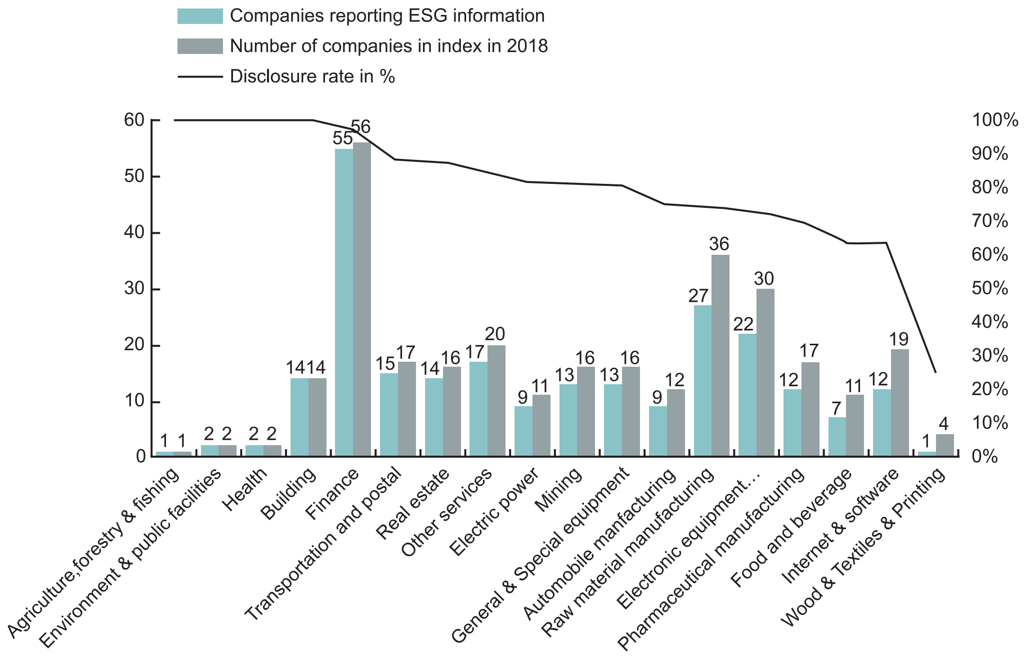
Source: SynTao Green Finance, SynTao's MQI Database

34 Ministry of Environmental Protection and CSRC jointly regulate the disclosure of environmental information, Shanghai Securities News, Aug. 22, 2017. http://news.cnstock.com/news,bwkx-201708-4119159.htm

35 Environmental regulatory authorities at all levels will regularly determine national key monitored pollutant discharging units ("national-controlled units") and provincial key monitored pollutant discharging units ("provincial-controlled units"), etc; in *Environmental Protection Law*, key pollutant discharging units are required to disclose information, which will be determined by local government and publicised as per the relevant regulations. National-controlled units, provincial-controlled units and key pollutant discharging units are similar but different concepts, they have something in common, but they are not quite the same. National-controlled units, provincial-controlled units, key pollutant discharging units and listed companies also have something in common, but the affiliation is more intricate, which pose more challenges for environmental regulatory authorities and financial supervision authorities to conduct synergy regulation of environmental information disclosure of listed companies. According to the statistics, in 2017, over 160 listed companies belong to national-controlled units.

Among CSI300 index constituent stock companies, those in the manufacturing industry (including pharmaceuticals, technical hardware and equipment manufacturing, automobile production, etc.) were found to have issued the most CSR reports, accounting for 43% of the total. This was followed by the financial industry, which accounted for 19% of CSR reports issued. Between them, these two sectors accounted for more than half of CSR reports. In China, CSR reports have been the main repository of ESG information.

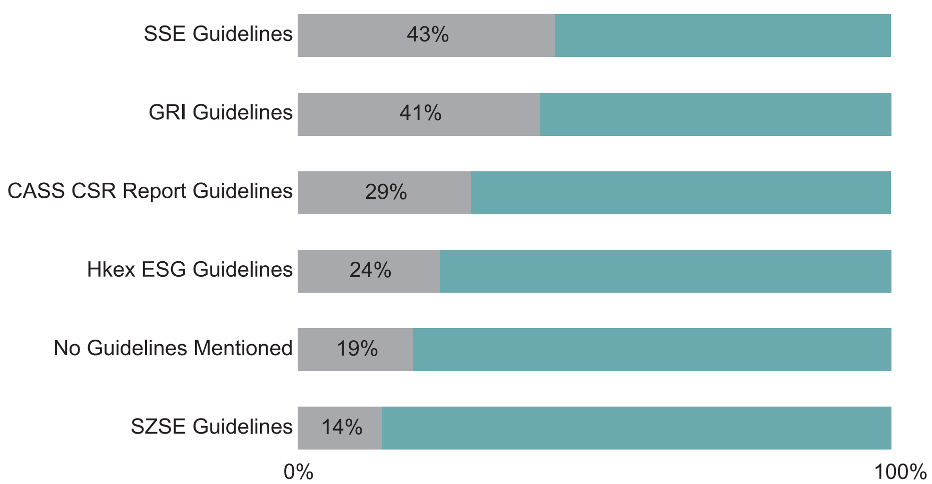
Fig.7: Statistics of ESG disclosure of CSI300 index constituent stocks by industry (2018)



Source: SynTao Green Finance, SynTao's MQI Database

The majority of published CSR reports are based on the guidelines of the Shanghai Stock Exchange, i.e. *Guidelines for the Preparation of the Report on Performance of Corporate Social Responsibility*. GRI Standards come second, with 41% of reports based on international standards.

Fig.8: Statistics of CSR report guidelines of CSI300 index constituent stocks (2018)



Source: SynTao Green Finance, SynTao's MQI Database

Commonly Disclosed ESG Indicators

Companies disclose governance indicators most frequently, with an average disclosure rate of 66.3%, followed by environmental indicators (40.4%), and social indicators (28.9%). The indicators reported above average for E, S and G topics disclosure are shown in the table below.

Fig.9: Most reported ESG topics by CSI300 companies (2018)

TYPE	TOPIC	FREQUENCY OF USE	CORRESPONDING GRI STANDARD
Environmental management: Average disclosure rate 44.6%	Environment management system certification	49%	GRI 103-2 Management policy
	Environmental management objective	81.6%	
	Policies on energy conservation and renewable energy application	77.7%	GRI 302-5 Reduce energy demand of product and service
Environmental data: Average disclosure rate 35.2%	Energy consumption and conservation	39.4%	GRI 302 Energy
	Tailpipe emission and reduction	38.9%	GRI 305 Emissions (GHG&waste gas)
	Wastewater discharge and reduction	46.4%	GRI 306 Waste(waste water&solid waste)
	Hazardous waste discharge and reduction	36.3%	
	Waste recycling	39.9%	
Social: Average disclosure rate 28.9%	Number of employees receiving vocational training each year and duration	66.1%	GRI 404 Training
	Donation	88.7%	-
	Prohibition of forced labour	32.6%	GRI 409 Forced labour
	Prohibition of child labour	32.3%	GRI 408 Child labour
	Anti-discrimination	41.7%	GRI 406 Anti-discrimination
	Number of female employees	35.5%	GRI 401 Employment
	Occupational health and safety	85.4%	GRI 403 Health and safety
	Fatality rate	54.7%	
	Lost time rate in accidents	38%	
Governance: Average disclosure rate 66.3%	Compensation of directors	97.4%	GRI 102-35 36 Compensation policy and compensation decision process
	Ratio of average compensation of employees and CEO compensation[36]	97.7%	
	Separation of President and CEO	97.6%	GRI 102-22 Top management unit and composition of its comittees
	Diversity of board of directors	75.8%	
	Independence of board of directors	97.2%	
	Independent remuneration panel	82.9%	
	Independent audit committee	88.4%	
	Independent nominating committee	86.4%	
	Thematic committees[37]	80.5%	
	Unqualified audit report	95.2%	GRI 102-56 External audit

Source: SynTao Green Finance

36 Ratio of average compensation of employees and CEO compensation are calculated as per two data disclosed by listed companies.

37 Listed companies are required to set up strategy committees, audit committees, nomination committees and compensation and appraisal committees in accordance with the code of governance for listed companies. This indicator examines the establishment of these committees.

The majority of highest disclosed indicators are related to governance. This is due to environmental and social indicators mostly being disclosed voluntarily by companies, whereas the disclosure of corporate governance indicators is mostly mandatory.[38]

The average disclosure rate of environmental indicators for CSI300 constituent stocks industries is 40.4%, among which the disclosure rate of environmental management indicators is 44.6%, while the disclosure rate of environmental data is 35.2%. This indicates that the qualitative disclosure rate is higher than it is for quantitative disclosures.

Fig.10 below shows the average disclosure rate by indicator and highlights which metrics reported above average.

Fig.10: Disclosure rate of environmental indexes of CSI300 constituent stock companies

TYPE OF CONTENT	INDICATOR / TOPIC	DISCLOSURE RATE
Environmental management Average disclosure rate 44.6%	Environment management system certification	49.0%
	Environmental management organization and HR allocation	37.1%
	Environmental management objective	81.6%
	Environmental protection training for employees	33.2%
	Internal and external communication on environmental issues	24.8%
	Policies on energy conservation and renewable energy application	77.7%
	Water conservation objective	37.4%
	Greenhouse gas emission management system	25.2%
	Green purchasing policy	35.5%
Environmental data Average disclosure rate 35.2%	Energy consumption and conservation	39.4%
	Energy intensity (energy consumption per unit of output value)	27.1%
	Total water consumption and conservation	31.6%
	Greenhouse gas emission and reduction	26.1%
	Wastewater discharge and reduction	46.4%
	Tailpipe emission and reduction	38.9%
	Hazardous waste discharge and reduction	36.3%
	Waste recycling)	39.9%
	Solid waste discharge and reduction	30.8%

Source: SynTao Green Finance

38 As per *Administrative Measures for the Disclosure of Information of Listed Companies* issued by CSRC in 2007, listed companies shall disclose the following in the periodic reports: major events occurred during reporting period and the impact on the company, issuance and change of corporate stock and bond, shareholding of major shareholders, composition of board of directors, titles and annual pay of senior managers, financial and accounting books, audit reports, etc. The above all belong to the scope of corporate governance indicators.

The average disclosure rate of social indicators for CSI300 constituent stock companies is 28.9%.

Fig.11 below shows the average disclosure rate by indicator and highlights which metrics reported above average.

Fig.11: Disclosure rates on social indicators by CSI300 companies

INDICATOR / TOPIC	DISCLOSURE RATE	AVERAGE DISCLOSURE
Freedom of association	3.9%	28.90%
Collective bargaining	25.2%	
Anti-forced labour	32.6%	
Prohibition of child labour	32.3%	
Equal pay for equal work	24.5%	
Anti-discrimination	42.3%	
Diversity promotion	17.4%	
Number of female employees	35.5%	
Employee turnover rate	13.2%	
Non-regular employee ratio	14.5%	
Number/time(s) of employees receiving vocational training each year and duration	66.1%	
Responsible supply chain management	13.2%	
Supply chain supervision system	25.2%	
Human rights	12.3%	
Enterprise foundation	19.7%	
Donation	88.7%	
Employee welfare activities	24.8%	
Occupational health and safety	85.4%	
Fatality rate	54.7%	
Proportion of working hours lost in accidents	38.0%	

Source: SynTao Green Finance

As mentioned before, according to the *Administrative Measures for the Disclosure of Information of Listed Companies* issued by the CSRC in 2007, listed companies shall disclose several corporate governance indexes, including board composition in their periodic reports. Among the disclosure of E, S and G indexes of CSI300 constituent stock companies in 2018, the overall disclosure rate of corporate governance indexes was relatively high, reaching 66.3%. However, whereas the disclosure rates of several indicators such as anti-corruption and bribery policies, reporting systems and board management are over 75%, the quality of those disclosures varies greatly.

Fig.12: Disclosure rates on corporate governance by CSI300 companies

INDICATOR / TOPIC	DISCLOSURE RATE	AVERAGE DISCLOSURE
Anti-corruption and bribery policies	65.8%	66.30%
Reporting system	25.8%	
Commitment to sustainable development	5.8%	
Tax payment	33.9%	
ESG information disclosure	80.0%	
Compensation of directors	97.4%	
Diversity of board of directors	97.6%	
Decentralization of authority of President & CEO	75.8%	
Independence of board of directors	97.2%	
Independent remuneration panel	82.9%	
Independent audit committee	88.4%	
Ratio of average compensation of employees and CEO compensation[39]	97.7%	
Board of directors & ESG	11.0%	
Auditing independence	6.5%	
Independent nominating committee	86.4%	
Unqualified audit report	95.2%	
Thematic committee	80.5%	

Source: SynTao Green Finance

39 Ratio of average compensation of employees and CEO compensation are calculated from data disclosed by listed companies.

Analysis by Bloomberg on the top 30 most reported metrics by listed companies in China, regrouped by primary ESG indicator/topic, indicates that similar key topics are generally being reported, as indicated by Fig.13.

Fig.13: Top 30 most reported metrics in China regrouped by primary ESG indicator/topic

TOPIC/PRIMARY INDICATOR	MOST REPORTED ESG METRICS IN 2018
Energy consumption in MWh	Total Energy Consumption
	Electricity Used
	Crude Oil/Diesel Consumption
	Natural Gas Consumption
GHG Emissions by scope in tonnes	Total GHG Emissions
	Total CO_2 Emissions
	GHG Scope 1
	GHG Scope 2
	GHG Scope 3
Total waste from operations in tonnes	Total Waste
	Waste Recycled
	Waste Sent to Landfills
Environmental fines	Environmental Fines (Amount)
	Number of Environmental Fines
Total water withdrawal	Total Water Withdrawal
	Total water use
Environmental management	ISO 14001 Certified Sites
Workforce composition	% Women in Workforce
	% Women in Management
	Number of Temporary Employees
	Employee Average Age
	% Employees Unionized
Donations	Community Spending
Training	Total Hours Spent by Firm - Employee Training
	Employee Training Cost
Turnover	Employee Turnover %
Employee safety	Lost Time Incident Rate
	Total Recordable Incident Rate
	Fatalities - Total
	Workforce Accidents - Employees

Source: Bloomberg

Comparison between most commonly reported quantitative metrics in China and internationally

Fig.14 shows a degree of similarity among metrics reported above average in China and internationally, despite a lower average reporting threshold for CSI300 listed companies.

Fig.14: Common E and S quantitative indicators and reporting frequency

ESG TOPIC	PRIMARY INDICATORS	REPORTING FREQUENCY INTERNATIONALLY	REPORTING FREQUENCY IN CHINA (CSI300)
GHG emissions	Total GHG emissions (scope 1,2,3) in tonnes	92%	26.1%
Air pollutants	Air emissions of NO_x, SO_x, POP, VOC, HAP, PM in kg[40]	NA	38.9%
Water	Total water withdrawal (m^3) % of water recycled	92%	31.6%
Energy	Total energy consumed (GW) % of renewable energy	85%	39.4%
Waste (water, solid, hazardous)	Total waste from operations (tonnes) % of hazardous waste % of waste recycled	77%	36.3-46.4%
Workforce	Workforce composition by gender Training hours per employee	69%	35.3-42.3%
Health and safety	Injury rate (TRIR) Fatality rate (for direct and contract employees)	100%	38-85.4%
Turnover	Employee turnover by category	62%	13.2%

Source: ICF, SynTao Green Finance

There is an increasing body of expertise in China among regulators, stock exchanges and listed companies, based on more than ten years of regulatory and market practice. The Chinese market is now ready for mandatory ESG disclosure that will integrate policy requirements and existing voluntary reporting practices. Including common standardised performance indicators in this framework will significantly improve the quality and quantity of ESG data in corporate reporting.

40 For definitions see https://www.globalreporting.org/standards/gri-standards-download-center/gri-305-emissions-2016/

GLOSSARY

CDSB	Climate Disclosure Standards Board
CSR	Corporate Social Responsibility
CSRC	China Securities Regulatory Commission
GRI	Global Reporting Initiative
ICGN	International Corporate Governance Network
IFC	International Finance Corporation
IIRC	International Integrated Reporting Council
OECD	The Organisation for Economic Co-operation and Development
PRI	The Principles for Responsible Investment
SASB	Sustainability Accounting Standards Board
TCFD	Task Force on Climate-related Financial Disclosures
UK PACT	UK Partnering for Accelerated Climate Transitions
UNEP FI	UN Environment Finance Initiative
WBCSD	World Business Council For Sustainable Development

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Opinions expressed in this report do not necessarily reflect the views of contributors and their institutions.

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