

ESG in China

Current State and Challenges in Disclosures and Integration

Ping An Digital Economic Research Center
Ping An Group ESG Office
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Executive Summary

For the global economy, 2020 marks a watershed year. The global response to the coronavirus crisis has highlighted the importance of how companies respond to social and environmental issues. It will likely fuel the wave of responsible investing that is already reaching the mainstream. As Chinese regulators begin to detail the mandatory disclosure requirements for listed companies on their environment-related information, Environmental, Social, and Governance (ESG), awareness, monitoring and disclosure in China are bound to accelerate. However, Chinese corporates will be challenged to meet stricter regulations and investor demands.

- 1. The scope and quality of disclosure among major Chinese companies still lag behind companies from developed markets, although disclosure rates have been improving.
 - An increasing number of Chinese companies now release annual ESG reports. In 2019, 85% of Chinese Securities Index (CSI) 300 companies did so, an improvement from 54% in 2013. However, among those companies that disclose ESG reports, only 12% have audited reports.
 - On average, the scope and quality of ESG disclosures among CSI300 companies in Mainland China rank the **lowest** among companies that are part of major stock market indices, including the ASX 200 (Australia), Hang Seng (Hong Kong), Nikkei 225 (Japan), S&P 500 (US), FTSE 100 (UK), and KOSPI 200 (Korea).
 - Even though more Chinese companies now release ESG reports, indicator-level coverage is subpar.
 For example, 52% of all ESG-related indicators on the Wind financial services database in China have a below 10% coverage rate for CSI300 companies: fewer than 10% of CSI300 companies have addressed these indicators in their ESG reports.
- 2. Chinese corporates face numerous barriers to high quality ESG disclosures, which make it difficult for investors to incorporate ESG factors in their investment decisions.
 - The multitude of guidelines lead to companies' confusion about what ESG information they need to disclose. Just among the 300 companies in the CSI300 index, there are a total of nine sets of guidelines, issued by a mix of financial regulators, non-financial regulators and stock exchanges with different aims. In addition, companies have to respond to requirements from ESG rating providers. Different rating providers have different frameworks and assessment processes for companies' ESG performance. As a result, there is dramatic divergence in their assessment of companies' performance, giving companies mixed signals. Among four ESG rating providers we analyzed, including China Alliance of Social Value Investment (CASVI), SynTao Green Finance, Sino-Securities Index, and FTSE Russell, the average pair-wise correlation is only 0.33. In comparison, credit ratings from Moody's and S&P have a correlation of 0.99.² This suggests different ESG rating providers are much less consistent in their evaluation of companies' ESG performance.
 - Companies lack guidance on what information is most material to their shareholders and their external ratings. Because of a lack of guidance on materiality, companies tend to report on indicators

¹ "Guidance on Building A Green Financial System" by The People's Bank of China, The Ministry of Finance, National Development and Reform Commission, The Ministry of Environment Protection, China Banking Regulatory Commission, China Securities Regulatory Commission, and China Insurance Regulatory Commission. August, 2016.

² Berg, Koelbel, and Rigobon, "Aggregate confusion: the divergence of ESG ratings." MIT Sloan School of Management Working Paper 5822-19; August 2019.

- that are the easiest to disclose rather than the most important. For example, companies have higher disclosure rates for qualitative indicators and those that are typically part of earnings reports.
- Companies have little to no processes for collecting high quality ESG data. Many companies have not set up streamlined internal data collection procedures to collect detailed ESG data. Manual collection across departments lead to low data quality and time-consuming processes. This is especially challenging in large companies with complex revenue streams and sub-divisions. In addition, companies report on ESG once a year and mainly to meet regulatory requirements. There is little monitoring and benchmarking with their industry peers. Often, they lack actionable insights on how to improve their performance.
- Companies lack expertise in indicators that require specific subject matter knowledge. Companies need more expertise in understanding indicator requirements. For example, one of the key environmental indicators is the "amount of carbon emissions." Companies often do not know how to calculate carbon emissions, especially when they must be categorized into Scope 1, 2 and 3 emissions, based on their source.³
- Companies lack understanding on the rationale behind certain indicators. Without fully understanding the rationale of certain indicators, companies' disclosures often do not meet expectations from regulators and investors. For example, the Hong Kong Stock Exchange requires disclosure of suppliers' geographic distribution. The rationale is that more localized supply and procurement networks will have less carbon emissions than global networks.

3. Recommendations to improve ESG disclosures

For the reasons outlined above, the value of company-driven, self-reported ESG disclosures of listed companies is limited for investors. The market needs to work towards more unified disclosure requirements, clearer indicator definitions and rationales, and more intelligent collection and reporting processes.

- Mainland China regulators should develop unified guidelines and converge on a set of the most material indicators that companies must disclose. While different issuing bodies differ in their objectives and scope, there should be a subset of specific and material indicators that are mandatory. Chinese regulators and stock exchanges should build on guidelines and recommendations from international organizations such as the Global Reporting Initiative (GRI) and the UN-supported Principles for Responsible Investment (PRI), and integrate local market considerations specific to Chinese companies. Regulators should also encourage companies to audit their ESG disclosures. ESG is an important complement to the governance of Chinese companies. Better ESG disclosures and performance can help improve the credibility and value of Chinese companies for global investors.
- Companies should leverage technological solutions to collect, monitor, and learn from its ESG data. Instead of a manual process, it should be automated across departments. Instead of an annual one-off exercise, it should be continuously monitored. Instead of confusion around what indicators to disclose, it should be a customized list based on the relevant guidelines, reducing the resources required to respond to different requirements. Ping An has leveraged its technological prowess to streamline and simplify its own ESG reporting process across more than 40 subsidiaries. Its AI-ESG platform mapped more than 500 indicators from different regulatory agencies and has helped Ping

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³ Scope 1 includes direct emissions from the activities of an organization or under its control. Scope 2 emissions include indirect emissions from electricity purchased and used by the organization. Scope 3 emissions include all other indirect emissions from activities of the organization, from sources that it does not own or control.

An to automate data collection, monitor changes, and generate actionable insights through industry peer comparison. As a result, Ping An's own annual ESG reporting process has been shortened by **22 days**, making it one of the first financial services companies globally to release its annual sustainability report this year.

- Rating providers should improve transparency on their methodologies and expand their ESG data sources to include alternative data that is not reliant on company disclosure, to improve objectivity and timeliness. Even though rating providers may not be able to disclose every detail of their methodologies due to intellectual property concerns, they could still be more transparent on their indicator scope and scoring framework. MSCI, for example, has the most detailed documentation on its methodology, which should be an industry standard. Providers should go beyond existing disclosure-based data to include non-disclosure based data, such as government announcements and news media reports, by leveraging advanced analytical capabilities such as natural language processing (NLP) and optical character recognition (OCR) to expand data coverage and improve timeliness. Providers should also focus on indicators that are material for investors, possibly by testing the impact of ESG indicators on medium- to long-term company valuations and reflecting that in their scoring models.
- Investors should incorporate ESG information into their investment decisions, develop ESG investment tools, exert shareholder influence and encourage better ESG disclosures from Chinese companies. Even though ESG investing is still in its early stages in China, various investment managers, including China Asset Management, Harvest Fund, Ping An, Southern Asset Management, and E Fund, have all started expanding their ESG-themed research and financial products. We suggest that investors implement ESG investing in three stages: First, investment managers can start from simpler processes, such as negative and positive screening, by leveraging several mainstream ESG rating providers in the market. Second, deepen analysis and application of ESG indicators and the ratings framework, analyze the impact of ESG indicators on investment decisions, and establish customized evaluation frameworks consistent with the investors' own investment styles. Third, fully integrate ESG factors into their own valuation models and develop targeted research on important ESG topics, such as climate change and demographic trends. Asset owners can also include external managers' ESG practices as part of their manager selection criteria. During company engagement, investors should encourage more specific and longer-timeline ESG data from companies. Only with clear expectations from both investors and regulators will companies be more motivated to improve their disclosures.

ESG in China in numbers

ESG disclosures

In 2019, 85% of 85% companies as part of CSI300 released an independent ESG report.

Among those with an ESG report, only 12% had an audited report.

52%

52% of all ESG indicators in the Wind database are reported by less than 10% of CSI300 companies.

ESG guidelines

Companies part of CSI300 follow 9 different sets of guidelines, with Global Reporting Initiatitye Sustainability Reporting Standards being the most frequently used.



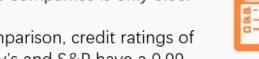
ESG ratings

Correlation between ESG ratings 0.33 among four providers¹ for CSI300 companies is only 0.33.

0.99

In comparison, credit ratings of Moody's and S&P have a 0.99





ESG at Ping An

500+

Ping An has mapped 500+ indicators from main guidelines and rating providers to measure its own ESG performance.

22 days

Ping An's AI-ESG platform has helped Ping An to automate data collection. monitor changes, and generate actionable insights, shortening its own annual ESG reporting process by 22 days.

¹ The four providers are China Alliance of Social Value Investment, SynTao Green Finance, Sino-Securities Index and FTSE Russell.

1. Current state of ESG disclosures in China

Due to stricter regulations and stronger investor demand, an increasing number of Chinese companies now release annual ESG reports. In 2019, 85% of CSI300 companies did so, an improvement from 54% in 2013. However, the proportion of companies with an audited ESG report has remained flat. Among the 85% of companies that disclosed ESG reports in 2019, only 12% have audited reports, roughly the same level as in 2013 (Figure 1).

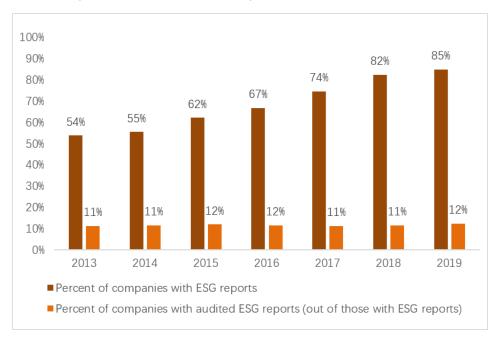


Figure 1: ESG Disclosure Among CSI300 Companies (2013-2019)

Source: Analysis of Wind data

Despite the positive trend, major Chinese companies still lag behind in ESG disclosure compared to companies in other major markets. The ESG movement has only recently started to gain traction in China, while major companies in developed markets started to publish dedicated sustainability reports 10 to 20 years ago.⁴ We analyzed the average Bloomberg ESG disclosure score for major stock market indices, including the CSI300 (China mainland), ASX 200 (Australia), Hang Seng (Hong Kong), Nikkei 225 (Japan), S&P 500 (US), FTSE 100 (UK), and KOSPI 200 (Korea) from 2013 to 2018.⁵ The average ESG disclosure score among CSI300 companies ranks the lowest among all seven indices (Figure 2). The proportion of CSI300 companies with audited ESG reports also ranks lower than others: only 11% of CSI300 companies had an audited ESG report in 2018 (Figure 1), compared to 47% of those listed on the Hang Seng Index.⁶

⁴ "ESG data in China: Recommendations for Primary ESG Indicators." UNEP Finance Initiative, PRI, SynTao Green Finance, and UK PACT. 2019.

⁵ Bloomberg's ESG disclosure score is a proprietary score that measures the amount of ESG data a company discloses publicly, not the company's ESG performance. It ranges from 0.1 to 100. Availability of each ESG data point contributing to the overall disclosure score is weighted based on its materiality and relevance to the company's industry sector.

⁶ Analysis of Bloomberg data.

50 45 40 35 30 25 20 15 Hong Kong Stock Exchange raises the 10 requirement of "suggested disclosures' 5 to "comply or explain" 2013 2014 2015 2016 2018 —ASX 200 (Australia) CSI300 (China mainland) — -Hang Seng (Hong Kong) -S&P 500 (US) FTSE 100 (UK) Nikkei 225 (Japan) -KOSPI200 (Korea)

Figure 2: Average Bloomberg ESG Disclosure Score for Major Stock Market Indices

Source: Analysis of Bloomberg data

The average disclosure score for Hong Kong's Hang Seng index rose rapidly starting in 2015. It suggests that stronger regulations are a major force in driving better ESG disclosures. It was in 2015 when the Hong Kong Stock Exchange (HKEX) issued a consultation paper that raised the bar of ESG disclosure – changing the requirement of "suggested disclosure" to "comply or explain", after which many companies listed on HKEX started releasing their first ESG reports. It is expected that the China Securities Regulatory Commission (CSRC) will start mandating disclosure of sustainability information for China's listed companies by the end of 2020, which we expect will significantly improve disclosure by Chinese companies.

While overall ESG disclosure among Chinese companies is still catching up to other markets, there is significant variation across industries. Close to 100% of financial companies released their ESG reports, while only 50% of telecommunication services companies did so (Figure 3). While it is important to increase disclosures, it is just as important to ensure quality disclosures. On this measure, the financial industry is also the best performing. Among financial companies who released ESG reports in 2019, 31% had their reports audited, much better than the CSI300's average level of 12% (Figure 3).

⁷ Gozde Celik, "ESG standards are going to be a challenge for Chinese companies." EqualOcean. April, 2020. https://equalocean.com/financial/20200419-esg-standards-are-going-to-be-a-challenge-for-chinese-companies

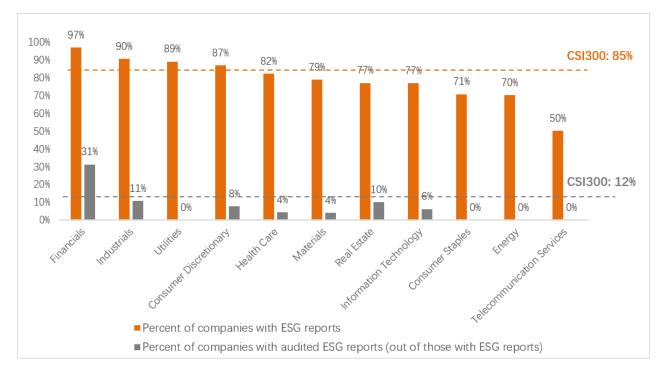


Figure 3: ESG Disclosure Among CSI300 Companies by Industry (2019)

Note: Industry classification is based on Wind's level 1 industry classification.

Source: Analysis of Wind data

Not only is there significant cross-industry variation, levels of disclosure also vary widely at the indicator level. We analyze the most and least frequently disclosed indicators for Environment (Table 1), Social (Table 2) and Governance (Table 3) by CSI300 companies in the Wind database.⁸ Notably:

- Even though more Chinese companies now release ESG reports, indicator-level coverage is subpar. 52% of all ESG-related indicators on the Wind financial services database in China have a below 10% coverage rate among CSI300 companies: fewer than 10% of CSI300 companies have addressed these indicators in their ESG reports. Even among the top 10 most frequently disclosed indicators, some have very low coverage. This implies that the challenge of ESG data availability cannot be solved merely by having more ESG reports. If many indicators remain unreported even among published reports, investors who want to incorporate comprehensive ESG signals would still face the challenge of missing data.
- Companies have better disclosures for qualitative indicators and indicators that are traditionally reported with earnings reports. For example, the top three Environment indicators "Whether there is discussion on climate change risks", "Whether it is a key polluting unit" and "Whether there is discussion on climate change opportunities" are all qualitative in nature. The top Governance indicators "Executive compensation", "Whether there is a chairman of the board of supervisors", "Employee shareholder ratio" and "Research and development costs" are all reported with earnings reports. Ease of reporting is an important factor in frequency of reporting.
- Information related to suppliers, such as the proportion of local suppliers and suppliers' ESG performance
 are infrequently reported, possibly due to incomplete information from suppliers, especially along ESG

⁸ It is important to note that this is not a list of all ESG indicators as each rating provider and each regulatory requirement may have a different list of indicators. It could also be that companies have disclosed information that failed to be captured by Wind's ESG database.

themes. Information on meeting attendance of boards of directors, audit committees and remuneration committees are also infrequently reported. However, it is unclear how material these indicators are.

It is important to note the list of indicators analyzed in this report are based on the list of ESG indicators available on the Wind database, which has several limitations:

- It is a limited list purely based on Wind's classification. Other data providers have different definitions of ESG indicators.
- It could be that companies have disclosed information that has not been captured by Wind's database.

For example, many governance indicators such as the "proportion of female board directors" are often disclosed in companies' annual financial reports, not necessarily ESG reports. Because these are not structured data, Wind's database may have not captured them fully, which results in a low disclosure rate.

Table 1: Most and Least Frequently Disclosed Environment Indicators Among CSI300 Companies with ESG Reports in Wind Database (2019)

Top 10		Bottom 10	
Indicator	Frequency	Indicator	Frequency
Whether there is discussion on climate change risks	100%	Amount of energy saved	6%
Whether it is a key polluting unit	100%	Amount of paper used	6%
Whether there is discussion on climate change opportunities	57%	Amount of electricity saved	5%
Total water usage	34%	Amount of water recycled and reused	4%
Total greenhouse gas emission	26%	Amount of total waste	3%
Total electricity usage	24%	Amount of general waste recycled	2%
Natural gas usage	22%	Amount of waste paper recycled	1%
Fuel usage	21%	Utilization rate of waste water	1%
Sulfur dioxide emission	19%	Waste water treatment capacity	1%
Hazardous waste volume	18%	Number of environmental violations	1%

Source: Analysis of Wind data

Table 2: Most and Least Frequently Disclosed Social Indicators Among CSI300 Companies with ESG Reports in Wind Database (2019)

Top 10		Bottom 10	
Indicator	Frequency	Indicator	Frequency
Standard unqualified opinion for	100%	Proportion of minority employees	8%
financial statements			
Whether there is customer	100%	Number of customer complaint	8%
feedback system			
Total number of employees	66%	Volunteer service hours	7%

Labor contract signing rate	37%	Number of working days lost due to work-related injury	6%
Number of new patents	31%	Work injury rate	2%
Proportion of female employees	26%	Occupational disease rate	2%
Medical insurance coverage	25%	Proportion of local procurement expenditure	1%
Per capita training hours	25%	Proportion of part-time workers	0%
Customer satisfaction rate	21%	Supplier localization ratio	0%
Staff turnover rate	15%	Number of suppliers assessed by ESG	0%

Source: Analysis of Wind data

Table 3: Most and Least Frequently Disclosed Governance Indicators Among CSI300 Companies with ESG Reports in Wind Database (2019)

Top 10		Bottom 10	
Indicator	Frequency	Indicator	Frequency
Executive compensation	100%	Proportion of female board directors	2%
Whether there is a chairman of the board of supervisors	100%	Board of supervisors meeting attendance	0%
Employee shareholder ratio	95%	Board of directors meeting attendance	0%
Research and development costs	75%	Number of board of directors who attend less than 75% of meetings	0%
Whether there is an equity incentive plan	57%	Nomination committee meeting attendance	0%
Number of board of directors meetings	54%	Percentage of board members with higher education	0%
Number of board of supervisors meetings	42%	Attendance of board meetings by independent directors	0%
Number of board of directors	29%	Proportion of independent directors	0%
Number of audit committee meetings	9%	Attendance at remuneration committee meetings	0%
Number of remuneration committee meetings	7%	Attendance at audit committee meetings	0%

Source: Analysis of Wind data

2. Challenges faced by Chinese corporates for broader and higher quality ESG disclosures

Globally, development of ESG concepts can be traced back to the 1990s, mainly led by non-profit organizations; in China, it is a recent phenomenon and mainly government-led. In the early stages,

policies in China mainly focused on information disclosure on environmental protection, pollution and green finance. The policies gradually expanded to management practices and the social impact of enterprises. These policies can be classified by different types of issuing bodies. In Figure 4, we outline a timeline of major ESG guidelines and regulations in China and overseas, by three types of issuing bodies:

- Non-financial regulators, such as the China Environmental Protection Agency
- Financial regulators, such as the China Securities Regulatory Commission
- Exchanges, such as the Shanghai Stock Exchange and the Shenzhen Stock Exchange

Figure 4: Timeline of Major ESG Guidelines and Regulations in China and Overseas

Dec 2005 - State Council promulgated the "Decision of the State Council on Implementing the Scientific Concept of Development and Strengthening Environmental Protection" (Guo Fa [2005] No. 39), requiring enterprises to disclose environmental information.

Sept 2006 - Shenzhen Stock Exchange issued the "Guidelines for Social Responsibility of Listed Companies", which requires listed companies to actively fulfill their social responsibilities, regularly evaluate the performance of corporate social responsibility, and voluntarily disclose corporate social responsibility reports.

China

May 2008 - Shanghai Stock Exchange issued the "Guidelines" for the Compilation of Social Responsibility Reports", which clarified what listed companies should disclose their work on promoting environmental and ecological sustainable development.

In Jan 2008, State-owned Assets Supervision and Administration Commission (SASAC) issued the "Guiding Opinions on the Implementation of Social Responsibilities of SOEs", which stipulates that qualified enterprises should regularly issue social responsibility reports or sustainable development reports.

Feb 2008 - the former **State Environmental Protection** Administration issued the "Guiding Opinions on Strengthening the Environmental Protection Supervision and Management of Listed Companies": listed companies should immediately disclose major events related to environmental protection that may have a greater impact on the trading prices of listed companies' securities and derivatives.

Sept 2010 - Ministry of Environmental Protection issued the "Guidelines for Environmental Information Disclosure of Listed Companies (Draft for Comment)", which included environmental accident disclosure for the first time for listed companies.

2012 - Hong Kong Stock Exchange issued the first edition of the "Guidelines on Environmental, Social and Governance Reports", recommending listed companies to issue ESG reports.

April 2014 - NPC Standing Committee revised "Environmental Protection Law", requiring companies to disclose pollution data to improve transparency.

Feb 2015 - Shenzhen Stock Exchange issued the "Guidelines for the Standardized Operation of Listed Companies", stating that in addition to previous guidelines issued in 2006, listed companies should immediately disclose reasons for serious environmental pollutions when they happen, including impact on company financial performance, environment, and counter-measures being deployed.

In 2015 - Hong Kong Stock Exchange issued the second edition of the "Environmental, Social and Governance Reporting Guidelines", which requires listed companies must disclose in their 2016 annual report 11 levels of general ESG indicators and 2017 annual report must disclose 12 key environmental indicators.

Sept 2018 - China Securities Regulatory Commission issued a revised "Guidelines for the Governance of Listed Companies", which established a basic framework for environmental, social responsibility and governance (ESG) information disclosure.

Dec 2017 - the China Securities Regulatory Commission promulgated the "Guidelines for Contents and Formats of Information Disclosure by Listed Companies No. 2(2017 Revision)", encouraging companies to voluntarily disclose relevant information that is conducive to protecting the ecology, preventing pollution, and fulfilling environmental responsibilities.

2008-2014 2015-2019 2000-2008

Overseas

In 1997, co-sponsored by the United States Non-Profit Environmental Economic Organization (CERES) and the United Nations Environment Program (UNEP), the Global Reporting Initiative (GRI) was established and released Sustainability Reporting Guidelines in 2000, 2002, 2006, and 2013 respectively. The fourth edition of the "Sustainability Reporting" Guidelines" involves labor practices, human rights, society Impact and product liability, etc. The guide is mainly for the preparation of sustainability reports by providing corresponding standards and content, However, this guide does not serve as a mandatory requirement.

As early as 2001, the International Standard Organization (ISO) began to conduct feasibility studies of international standards of social responsibility, and set up a social responsibility advisory group. In June 2004, it decided to develop an international "Social Responsibility" guide applicable to all social organizations, including the government. It was jointly developed by 54 countries and 24 international organizations, and the number of this guide is ISO26000.

UN-PRI was launched in 2006, and is a non-profit organization endorsed by the United Nations Environment Program Financial Initiative (UNEP-FI) and the United Nations Global Compact (UN-GC). The "Principle for Responsible Investment (PRI)" proposed by UN-PRI combines social responsibility, corporate governance and environmental protection. It is the first organization that proposed the ESG concept and rating structure to help investors understand the value of the environment, social responsibility and corporate governance.

Non-financial regulators

Financial regulators Stock exchanges

With so many guidelines and no unified standard, companies do not know which ones to follow and what ESG information they need to disclose. In 2019, among the 85% of companies in the CSI300 that released ESG reports, disclosures followed nine different sets of guidelines from a mix of government, stock exchanges, and academic/non-profit bodies (Table 4). The top three most frequently used are from the Global Sustainability Standard Board (123 companies), the Shanghai Stock Exchange (115 companies) and the Chinese Academy of Social Sciences (68 companies). See Table 6 in the Appendix for a summary of the key guidelines from the nine issuing bodies.

Table 4: Guidelines Followed by CSI300 Companies for ESG Disclosures

Guidelines-issuing body ¹	Number of CSI300 companies following guidelines ²	Percent of companies following guidelines (Out of CSI300 companies with ESG reports)
Global Sustainability Standard Board (GSSB)	123	65%
Shanghai Stock Exchange	115	61%
Chinese Academy of Social Sciences	80	42%
Hong Kong Stock Exchange	68	36%
Shenzhen Stock Exchange	64	34%
International Organization for Standardization	59	31%
General Administration of Quality Supervision, Inspection and Quarantine of China; Standardization Administration of China	36	19%
State-owned Assets Supervision and Administration Commission of the State Council	18	10%
China Federation of Industrial Economics	4	2%

Note: ¹ Guidelines issued may not be solely about ESG, but may include recommendations on ESG-related issues. ² Companies can follow multiple guidelines.

Source: Analysis of Wind data

There is a lack of guidance on the materiality of indicators. Companies are unclear which indicators matter most to their shareholders and their external ratings. This prompts them to report on indicators that are the easiest to disclose instead of the most important to disclose. For example, as shown in Tables 1, 2 and 3, companies have higher disclosure rates for qualitative indicators and indicators that are traditionally reported with earnings reports. Similarly, companies lack understanding on the rationale behind certain indicators. Without fully understanding the rationale of certain indicators, companies' disclosures often do not meet expectations from regulators and investors. For example, the Hong Kong Stock Exchange requires disclosure of suppliers' geographic distribution. The rationale is that more localized supply and procurement networks will

have less carbon emissions than global networks.

Even if companies had full information on what they should disclose, they still face gaps in expertise and operational efficiency. Annually, many companies go through a manual reporting process to collect ESG data across departments, without uniform understanding on indicator definitions or requirements. This results in low data quality and long reporting processes. Many ESG indicators require subject matter expertise in sustainability and social impact fields, for which many companies have not yet invested. For example, being able to report on Scope 1, 2, and 3 emissions often contributes positively to companies' ESG ratings. However, many companies do not know how to calculate emissions by scope from their operational data. Even with a clearly defined list of indicators to report, significant effort is required to set up internal processes to collect the data.

Finally, companies receive mixed signals from rating providers and they often do not know what the market expects of them or how they can improve performance. As ESG disclosure becomes more common, more global ESG ratings providers are expanding their China A-shares coverage and more Chinese providers have emerged. We examine the consistency of ESG ratings results between four providers — China Alliance of Social Value Investment (CASVI), SynTao Green Finance, Sino-Securities Index, and FTSE Russell (Table 5). The average pair-wise correlation is 0.33, which shows dramatic divergence between providers. In comparison, credit ratings from Moody's and S&P have a correlation of 0.99.9 This suggests different ESG rating providers are much less consistent in their evaluation of companies' ESG performance.

Table 5: Pair-wise Correlation Between ESG Ratings of Four Providers

	CASVI	SynTao	Sino- Securities	FTSE Russell
CASVI	1	0.43	0.38	0.29
SynTao	-	1	0.19	0.66
Sino-Securities	-	-	1	0.05
FTSE Russell	_	_	_	1

Average pair-wise correlation: 0.33

Source: Analysis of Wind data

The divergence between providers is even starker when looking at the distribution of CSI300 companies across ratings. While Sino-Securities rates more than 80% of CSI300 companies as "upper tier", CASVI rates 33% as such, and FTSE Russell and SynTao rate 0% and 1% respectively as "upper tier" (Figure 5).

⁹ Berg, Koelbel, and Rigobon, "Aggregate confusion: the divergence of ESG ratings." MIT Sloan School of Management Working Paper 5822-19; August 2019

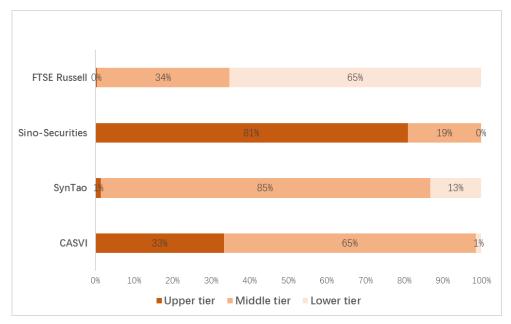


Figure 5: Distribution of ESG Ratings Among CSI300 Companies Across Four Providers (2019)

Source: Analysis of Wind data

Without indicator-level data from each provider, we cannot further quantifiably determine the sources of the disagreement; however, we expect the wide divergence to originate from the following sources:

- Differences in underlying data source and coverage: The starting point of data sources for almost all
 providers are companies' own disclosures. However, since such disclosures are limited, providers have to
 obtain data from non-disclosure-based sources, such as government announcements and news media
 reports. This data might not be captured by other rating agencies or even if they are, the amount and depth
 captured can also be different.
- Differences in scopes of indicators: For example, FTSE Russell's rating pillars and themes are built on over 300 individual indicator assessments that are applied to each company's sector. It contains 14 "Theme Scores", such as Anti-Corruption, Climate Change, and Health & Safety, and over 300 indicators. SynTao has 200+ indicators, including negative environmental information and China-specific indicators such as poverty reduction efforts. With different indicators' coverage and content, the final scores of the same company can be very different.
- **Differences in factor weights**: Rating providers design factor weights based on a combination of expert opinion and guidelines on materiality. Factor weights also depend on how providers view industry-level differences. For instance, global rating agencies give greater weight to carbon emissions than China rating agencies, while Chinese providers consider environmental-related penalties more material.
- Differences in methodology framework: While most providers only consider ESG risks, some also
 consider ESG opportunities. How rating providers consider controversies also matters significantly. For
 instance, SynTao deducts points related to controversies, but other providers may impose a less or more
 severe deduction.

Such high levels of disagreement poses difficulty for wider ESG adoption because:

• Investors cannot easily distinguish between high- vs. low-performing companies, making it difficult to reflect ESG factors in asset prices.

- Companies receive mixed signals from rating providers on their performance and market expectations.
- Empirical research on the effectiveness of ESG factors on asset-pricing is limited by inconsistent data.

3. Recommendations to improve ESG disclosures

For the reasons outlined above, the value of company-driven self-reported ESG disclosures of listed companies is limited for investors. The market needs to work towards more unified disclosure requirements, clearer indicator definitions and rationales, and more intelligent collection and reporting processes.

- China mainland regulators should develop unified guidelines and converge on a set of the most material indicators that companies must disclose. While different issuing bodies would differ in their objectives and scope, there should be a subset of specific and material indicators that are mandatory. Chinese regulators and stock exchanges should build on guidelines and recommendations from international organizations such as GRI and PRI, and integrate local market considerations specific to Chinese companies. They should also encourage companies to audit their ESG disclosures. ESG is an important complement to the governance of Chinese companies. Better ESG disclosures and performance can help improve the credibility and value of Chinese companies for global investors.
- Companies should leverage technological solutions to collect, monitor, and learn from its ESG data. Instead of a manual process, it should be automated across departments. Instead of an annual one-off exercise, it should be continuously monitored. Instead of confusion around what indicators to disclose, it should be a customized list based on the preferred guidelines, reducing the resources required to respond to different requirements. Ping An has leveraged its technological prowess to streamline and simplify its own ESG reporting process across more than 40 subsidiaries. Its AI-ESG platform mapped more than 500 indicators from different regulatory agencies and has helped Ping An to automate data collection, monitor changes, and generate actionable insights through industry peer comparison. As a result, Ping An's own annual ESG reporting process has been shortened by 22 days, making it one of the first financial services companies globally to release its annual sustainability report this year.
- Rating providers should improve transparency on their methodologies and expand their ESG data sources to include alternative data that is not reliant on company disclosure, to improve objectivity and timeliness. Even though providers may not be able to disclose every detail of their methodologies due to intellectual property concerns, they could still be more transparent on their indicator scopes and scoring frameworks. MSCI, for example, has the most detailed documentation on its methodologies, which should be an industry standard. Providers should supplement the existing disclosure-based data with non-disclosure-based data, such as government announcements and news media reports, leveraging advanced analytical capabilities such as NLP and OCR to expand data coverage and improve timeliness. Providers should also focus on indicators that are material for investors, possibly by testing the impact of ESG indicators on medium- to long-term company valuations and reflecting that in their scoring models.
- Investors should incorporate ESG information into their investment decisions, develop ESG investment tools, exert shareholder influence and encourage better ESG disclosures among Chinese companies. Even though ESG investing is still in its early stages in China, various investment managers, including China Asset Management, Harvest Fund, Ping An, Southern Asset Management, and E Fund, have all started expanding their ESG-themed research and financial products. We suggest that investors implement ESG investing in three stages:
 - o First, investment managers can start from simpler processes, such as negative and positive

- screening, by leveraging several mainstream ESG rating providers in the market.
- Second, deepen analysis and application of ESG indicators and ratings frameworks, analyze the impact of ESG indicators on investment decisions, and establish customized evaluation frameworks consistent with the investors' own investment styles.
- Third, fully integrate ESG factors into their own valuation models and develop targeted research on important ESG topics, such as climate change and demographic trends. Asset owners can also include external managers' ESG practices as part of their manager selection criteria. During company engagement, investors should encourage more specific and longer-timeline ESG data from companies. Only with clear expectations from both investors and regulators will companies be more motivated to improve their disclosures.

Data and methodologies.

ESG data analyzed in this report are from Wind and Bloomberg, retrieved in May 2020. As databases update, specific results may be outdated.

To analyze rating consistency between providers, we converted all providers' ratings into numeric scales. The four providers we analyzed – China Alliance of Social Value Investment (CASVI), SynTao Green Finance, Sino-Securities Index, and FTSE Russell – have varying scales, specifically:

- CASVI has ten main rating levels AAA, AA, A, BBB, BB, B, CCC, CC, C and D. Among these, levels AA to B are adjusted further with "+" and "-", making it a total of 20 levels.
- SynTao Green Finance has ten main levels A+, A, A-, B+, B, B-, C+, C, C-, D.
- Sino-Securities Index has nine main levels AAA, AA, A, BBB, BB, B, CCC, CC, C.
- FTSE Russell has a numerical scale from 0-5, with 5 being the highest score.

To provide an overview of the rating consistency between these four providers, we converted all levels to numeric scales and then calculated pair-wise correlations between each pair of providers.

To examine company-level heterogeneity, we divided each provider's rating levels into three broad categories – "upper tier", "middle tier" and "lower tier". For CASVI, SynTao, and Sino-Securities with a non-numerical scale, As, Bs, and Cs/D are designated as "upper tier", "middle tier", and "lower tier" respectively. For FTSE Russell, scores are grouped into 0-1.7 (upper), 1.8-3.3 (middle), and 3.4-5 (lower).

Appendix

Table 6: Summary of Main Social Responsibility Guidelines Used by CSI300 Companies

Issuing body	Guidelines	Content	Time in effect
Global Sustainability Standard Board (GSSB)	GRI Sustainability Reporting Guidelines	Contains recommended principles for companies' sustainability reports and relevant disclosure metrics, management methods, and performance indicators on economic, environmental, social, human rights, and product liability topics, etc.	2013.5 (G4 version)
Shanghai Stock Exchange	Guidelines for Environmental Information Disclosure of Listed Companies; Listing Rules of Science and Technology Innovation Board of Shanghai Stock Exchange	Outlines specific requirements for listed companies' disclosure of social responsibility, including measures for environmental protection Specifies mandatory ESG disclosures for companies listed on the Science and Technology Innovation Board	2008; 2019
Hong Kong Stock Exchange	ESG Reporting Guide; New ESG Reporting Guide	Makes it mandatory for the board to disclose its oversight of ESG issues, its ESG management approach and strategy, and how it reviews progress on ESG related issues. Elevates "recommended" disclosures to "comply or explain."	2015; New guide Released in 2019 and will commence after July 1, 2020
Chinese Academy of Social Sciences	Guidelines for the Preparation of China's Corporate Social Responsibility	Sets framework for and principles for corporations' social responsibility effort	2017

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¹⁰ Other key changes of the Hong Kong Stock Exchange's new ESG Reporting Guide include: Introducing mandatory disclosure requirements to include: a board statement setting out the board's consideration of ESG matters; application of Reporting Principles "materiality", "quantitative" and "consistency"; an explanation of reporting boundaries of ESG reports; requiring disclosure of significant climate-related issues which have impacted and may impact the issuer; amending the "Environmental" key performance indicators (KPIs) to require disclosure of relevant targets; upgrading the disclosure obligation of all "Social" KPIs to "comply or explain"; and shortening the deadline for publication of ESG reports to within five months after the financial year-end.

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	Report (CASS- CSR4.0)		
Shenzhen Stock Exchange	Guidelines for Standardized Operation of GEM Listed Companies of Shenzhen Stock Exchange; Social Responsibility Guidelines for Listed Companies of Shenzhen Stock Exchange	Puts forward specific requirements for social responsibility information disclosure including on environmental protection measures; Sets requirements for environmental pollution disclosure requirements for listed companies on the main board, small and medium-sized board, and General Enterprise Market	2015; 2006
International Organization for Standardization	ISO26000: Social Responsibility Guide (2010)	Main content includes: terms and definitions; background information; principles and practices core issues and themes; performance; handling of stakeholders; and communication issues related to social responsibility.	2010
General Administration of Quality Supervision, Inspection and Quarantine of China; Standardization Administration of China	Guidelines for the Preparation of Social Responsibility Reports (GB/T36001)	Provides the basic principles, procedures, scope, and methods for preparing social responsibility reports	2015
State-owned Assets Supervision and Administration Commission of the State Council	Guidelines on Social Responsibility for State-owned Enterprises	Regarded as the first guideline on corporate social responsibility by a national ministry; outlines main responsibilities including: improve corporate management; improve energy conservation and environmental protection; reduce emissions; ensure production safety; participate in philanthropy effort; and help to build social responsibility frameworks in China	2008
China Federation of Industrial Economics	Guide on Social Responsibility for Industries in China	Social responsibility guide for companies in coal, machinery, iron and steel, petrochemical, light industry, textile, building materials, non-ferrous metals, electric power, mining and other 11 industries. On the	2008

premise of requiring the self-discipline of industrial enterprises, the guide also requires the establishment of a social responsibility framework and the formation of a management system that coordinates and promotes social responsibility practices

About Ping An Group

Ping An Insurance (Group) Company of China, Ltd. ("Ping An") is a world-leading technology-powered retail financial services group. With over 204 million retail customers and 534 million Internet users, Ping An is one of the largest financial services companies in the world.

Ping An has two over-arching strategies, "pan financial assets" and "pan health care", which focus on the provision of financial and healthcare services through our integrated financial services platform and our five ecosystems of financial services, health care, auto services, real estate services and smart city services. Our "finance + technology" and "finance + ecosystem" strategies aim to provide customers and internet users with innovative and simple products and services using technology. As China's first joint stock insurance company, Ping An Group is committed to upholding the highest standards of corporate reporting and corporate governance. The Company is listed on the stock exchanges in Hong Kong and Shanghai.

In 2020, Ping An ranked 7th in the Forbes Global 2000 list. In 2019, Ping An ranked 29th on the Fortune Global 500 list. Ping An also ranked 40th in the 2019 WPP Millward Brown BrandZ[™] Top 100 Most Valuable Global Brands list. For more information, please visit www.pingan.cn.

About Ping An Digital Economic Research Center

Ping An Digital Economic Research Center utilizes more than 50 TB high frequency data points, more than 30 years of historical data and more than 1.5 billion data points to drive research on the "AI + Macro Forecast" and provide insights and methods towards precise macroeconomic trends. For more information on this report, please contact Chenxi Yu at wuchenxi301@pingan.com.cn.

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