

Embracing China's target of carbon peaking and carbon neutrality, ESG empowers new growth in traditional industries

EY

Summary

Since 2008, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and the Shanghai and Shenzhen Stock Exchanges successively issued documents encouraging Chinese companies to publish reports on corporate social responsibility (CSR). China then began to promote the establishment of an environmental, social and governance (ESG) system. As the A-share market becomes increasingly accessible to foreign investment, listed companies and investors have given more importance to ESG. The ESG performance of a company is now one of the important considerations for making investment decisions. By assessing the performance of ESG risk and management, investment institutions can analyze a company's capability for long-term sustainable development.

A strong ESG proposition helps traditional industries create new business model for sustainable development by integrating business development with environmental protection, social sustainability, and good practice in corporate governance. A company's ESG risk management not only enhances its ability to respond to future risks, but also improves its overall strength and reduces its financing costs by team reinforcement and digital management. In addition, under the dual carbon goals – reaching carbon peak and achieving carbon neutrality, the industrial ecosystem will transform toward a circular economy and drive the vertical integration of the industrial chain. In the new era, low-carbon and green growth will be the key factors in measuring competitiveness.

As traditional companies are generally new to ESG, most of them are still at the

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early stage of ESG management and encounter many challenges in governance, management and disclosure. In terms of governance, these companies lack a sound ESG governance system and awareness, and have not yet established a risk assessment system to mitigate potential ESG risks. In terms of management, they have not yet established a complete ESG management mechanism and any ESG-related activities were loosely executed. Their data collection system is also relatively out of date, which cannot fully and timely reflect their ESG performance. As for disclosure, due to the lack of a unified indicator system, the information disclosed in the report often have low information value. In addition, the lack of communication with stakeholders and external rating agencies has resulted in companies failing to gain sufficient external recognition.

EY believes that to enhance the overall ESG standards, companies need to make efforts in five aspects: ESG governance system, ESG risk management, ESG management system, ESG information collection and information disclosure. They need to integrate ESG management into their day-to-day operations. In terms of governance, companies are advised to build a multi-level governance structure led by the board of directors, and steadily promote ESG work by clarifying the rights and responsibilities of each level. They also need to integrate the ESG risk management mechanism into the overall risk management system to improve their ability to cope with emerging and future risks.

In terms of management, companies should improve the ESG management system, standardize their day-to-day management, optimize the existing ESG data management system through digital solutions, and improve the quality and timeliness of ESG data. In terms of disclosure, companies should clarify the ESG information disclosure process, and establish a regular communication mechanism with stakeholders and rating agencies to ensure that information disclosure results are in line with the purposes and principles of reporting.

Represented by the iron and steel industry, traditional industries shoulder important social responsibility. Baosteel, the world's leading modernized steel conglomerate, has put ESG concepts into practice and shouldered the responsibility of sustainable development. The company established an ESG governance structure and formed a three-tier governance system – the board of directors; the strategy, risk and ESG committees; and the ESG working group. It has incorporated ESG concepts into its strategy and risk management, and

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leveraged on digital technology to improve the efficiency of ESG management and to control ESG risks. In terms of environment, Baosteel has proactively responded to China's dual carbon goals, and formulated its own carbon goals to achieve carbon peak in 2023, to be technologically enabled by 2025 to reduce carbon by 30%, then to reduce carbon by 30% in 2035, and eventually to achieve carbon neutrality in 2050.

In terms of society, the company not only safeguards the rights, interests, health and safety of employees, but also actively promotes green construction of the industrial chain and the common development of the society. These efforts have allowed Baosteel's ESG performance to be highly recognized.

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1. Overview of ESG development

The performance of environmental, social and governance (ESG) has become one of the most important considerations for investors when making investment decisions. By assessing the performance of ESG risk and management, investment institutions can analyze a company's capability for long-term sustainable development. More and more companies are now disclosing corporate non-financial information in their ESG reports (corporate social responsibility reports or sustainability reports), and proactively responding to the concerns of the capital market.

1.1 Concept and development of ESG

As one of the most prominent considerations in socially responsible investment, ESG investment originated from socially responsible investment (SRI). SRI was more well known before ESG concepts became popular. With the change and development of the social environment, the foundation of SRI has gradually become a significant "socially responsible" investment.

1.2 Development of ESG in China

Compared with developed countries, China's development of ESG supervision and investment system has started late. However, as the A-share market becomes increasingly accessible to foreign investment, listed companies and investors have given more importance to ESG.

2008-2018: Preliminary formation of ESG framework in China

In 2008, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and the Shanghai and Shenzhen Stock Exchanges issued documents encouraging Chinese companies to publish Corporate Social Responsibility (CSR) reports. In 2015, The Stock Exchange of Hong Kong Limited amended Appendix 27 of the Listing Rules: starting from fiscal year 2016, all companies listed in Hong Kong are required to comply with the Environmental, Social and Governance Reporting Guide to compile and publish ESG reports. In 2018, A-shares were officially included in the Morgan Stanley Capital International (MSCI) Emerging Markets Index, and MSCI announced to conduct ESG research and ratings on the companies included thereon. The ESG

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performance of Chinese companies has gradually attracted attention.

2020-2022: Dual carbon goals boost ESG development

In 2020, China unveiled its dual carbon goals – to hit peak emission by 2030 and achieve carbon neutrality by 2060, leading listed companies and investors to pay more attention to ESG. In 2021, the International Financial Reporting Standards (IFRS) Foundation officially announced the establishment of the International Sustainability Standards Board (ISSB) at the 26th United Nations Climate Change Conference (COP26). The ISSB will actively promote the establishment of an International Sustainability Reporting Standards System with governments of various countries. In the same year, the Hong Kong Stock Exchange officially released the Guidance on Climate Disclosures and Practical Net-Zero Guide for Business to achieve the integration of carbon neutrality and ESG indicators.

ESG is in line with the goals of green development and low-carbon transformation in China. Companies' emphasis on energy conservation and emission reduction is also a manifestation of corporate social responsibility. The construction of ESG system can help companies establish sustainable development strategies, implement a low-carbon transformation path, and achieve the long-term goal of carbon neutrality.

2. ESG promotes the sustainable development of traditional industries

In recent years, climate change has caused more frequent and more intense weather conditions around the world, bringing unprecedented impacts on economic development, social stability, public health and disaster relief. As global warming continues, current actions to reduce emissions may not ease the growing climate risks and its significant impact on society. ESG issues are becoming more important as climate change brings unsystematic risks and significant uncertainties to society. A strong ESG proposition helps companies create new business model for sustainable development by integrating business development with environmental protection, social sustainability, and good practice in corporate governance.

The adoption of ESG principles requires companies to have a sound governance structure and management system. While considering future profitability and risk

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management, companies should pay attention to their impact on the environment, undertake corporate social responsibilities and create long-term value for the society.

EY believes that ESG adoption will bring the following development trends for traditional industries.

Trend 1: Low-carbon and green growth are key factors in measuring competitiveness in the new era

China has widely promoted green transformation of consumption in key areas and guided companies to improve the standards of green innovation, green products and technologies, such as low-carbon metallurgy, green buildings, and lightweight design. Such moves have gradually drawn the attention of the market, prompting the green and low-carbon transformation of traditional industries. Companies need to incorporate sustainable development into their overall strategy, take the lead in rolling out a green and low-carbon roadmap, and make low-carbon and green growth a new competitive edge.

Trend 2: Circular economy will promote industrial chain integration

Traditional industries often have problems with high pollution and high emissions. Therefore, companies need to integrate industries vertically, replace linear growth with circular production, and build an operating model of circular economy. Based on the principle of closed-circuit circulation of materials and cascaded utilization of energy, companies convert the originally generated waste into energy or products through resource utilization, and enrich the diversity of products while achieving zero discharge of factory waste. Meanwhile, companies can improve energy efficiency by recycling and reusing residual heat. While satisfying production and operation, they can provide energy to surrounding communities and promote the development of community infrastructure.

Trend 3: Improved employee management system will enhance the overall strength of companies

Talent is at the core of corporate development. They create and share corporate culture, values and interests. Amid the rapidly shifting business environment, traditional industries are constantly innovating, and the requirements for talent are also constantly changing. While ensuring the health and safety of employees, companies can build a comprehensive learning program and career development system for employees to cultivate a future-focused team and enhance the overall

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strength of the business.

Trend 4: ESG risk management is critical for companies to respond to risk

Climate change and the Covid-19 pandemic have created new challenges to traditional companies in the course of globalization, whether it is raw material supply or product sales. Companies can build a sustainable supply chain by combining ESG risk management systems with existing risk management systems, through dual-source procurement, conflict minerals investigations and other measures. Meanwhile, based on the framework of the Task Force on Climate-related Financial Information Disclosures (TCFD), some companies are actively carrying out the identification and management of climate change risks to mitigate their potential impact. They do it by verifying product carbon footprint, setting carbon targets and taking other measures, creating new business opportunities.

Trend 5: Good ESG performance will reduce financing costs

As ESG awareness continues to grow in China's capital market, investors and other stakeholders are increasingly considering a company's three pillars of environmental, social and governance. According to a 2020 EY survey of major global institutional investors, 98% of respondents said they had adopted a more regulated and rigorous approach to assessing the non-financial performance of a company. 72% said they have systematically assessed the non-financial disclosures of the company. In this context, companies need to identify, measure and embed ESG factors in the entire organizational structure, so as to attract capital and create long-term value.

Trend 6: Corporate management will accelerate digital transformation

With the rapid development of ESG governance and investment, the demand from various stakeholders to collect and analyze ESG information have subsequently increased. Real-time and effective information collection tools will provide a basis for companies and investors to make decisions. Modern technology tools are needed to sort out and analyze massive data and carry out more refined management. The use of smart and digital technologies for ESG management will help companies advance in the ESG field and complete the transition from compliance disclosure to in-depth management. This has become a solid foundation for companies to improve the quality of ESG information, enhance the efficiency of ESG management, control ESG risks, and explore ESG-related

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business opportunities.

3. ESG challenges facing traditional industries in China

Pushing ahead with ESG changes is not optional, but mandatory. Amid the pandemic, “grey rhino” and “black swan” incidents have occurred frequently. Economic uncertainty has intensified, drawing people’s attention to sustainable development and ESG.

The announcement of dual carbon goals by the Chinese government has exerted relatively great pressure on traditional industries as many of them are carbon intensive industries. A more urgent issue is that some traditional companies do not have adequate knowledge on ESG, or lack institutional processes for the identification and analysis of as well as response to ESG, resulting in their inability to actively respond to related challenges.

3.1 Lack of a strong ESG governance system and awareness

In China, corporate ESG governance started late, and not many companies have established an ESG governance structure. A survey of 40 domestic and overseas institutional investors under the Principles for Responsible Investment (PRI) formulated by the United Nations shows that some Chinese-funded listed companies have problems in ESG communication with institutional investors. This is due to the lack of an ESG department or an inadequate understanding of ESG among the investor relations department. To a certain extent, this has undermined the attractiveness of listed companies to investors.

Currently, it is widely accepted that the ESG governance structure should be established and improved, but there are still quite a number of corporate directors and senior executives who do not have sufficient knowledge of ESG. ESG covers a wide range of matters and has a high degree of specialization. For companies at the early stage of implementing ESG governance, if the ESG committee has not yet obtained sufficient and relevant knowledge, it is impossible to put ESG into practice.

3.2 Lack of ESG risk assessment initiatives

To achieve dual carbon goals, the economic development model, energy structure, technological path, production and consumption methods, and even peoples’ lifestyles in China will undergo profound changes. While the market opportunities during the transformation process are huge, many traditional industries seem to be

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unaware of ESG risks. Some authoritative international organizations, such as the Task Force on Climate-Related Financial Disclosures (TCFD) and the Central Banks and Supervisors Network for Greening the Financial System (NGFS), define such risks arising from the transition to a low-carbon economy as climate-related transition risks mainly found in policy, market and other aspects.

According to the EY 2020 Global Climate Risk Disclosure Barometer, about 41% of the companies being assessed have disclosed scenario planning information, but only 15% included climate change in their financial disclosures. This suggests that most companies still do not have robust data on the financial impact of various scenarios, or have not thoroughly studied the impact of these scenarios on companies.

3.3 Lack of standardized ESG management measures and systems

Since ESG management was not a mandatory requirement in the past, some companies have executed relatively loose ESG management. Some do not have policies on the establishment and management of the corresponding mechanism, and some measures were taken without following any guidelines. As a result, such companies are prone to potential ESG risks, making them difficult to meet the systematic disclosure requirements on management systems and achievements, and cannot truly reflect the performance of their ESG measures.

3.4 Lack of a scientific ESG information collection system

The ESG information of companies is scattered throughout different business and operational processes, while the definition and scope of the same indicator may differ. This problem becomes more prominent as business expansion takes place. Taking the data on discharge of pollutants as an example: the types of pollutants, statistical calibers, and calculation methods vary greatly in different businesses and regions, which will devalue the information, thereby affecting the accuracy of ESG information and management efficiency. Meanwhile, corporate ESG information is often collected on an annual basis, which will lead to a major time lag. The lack of process monitoring causes the companies to be unable to formulate corresponding improvement measures based on ESG performance in a timely manner, which is prone to potential ESG risks and the opportunity to convert risks into business opportunities will be missed.

3.5 Lack of a standardized ESG information disclosure system

The ESG information disclosure system of listed companies in China is still developing at the early stage. There is no unified framework and a sound indicator

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system for ESG information disclosure of listed companies, resulting in limited ESG disclosure by listed companies in China, and some companies that are willing to disclose are taking a wait-and-see attitude due to the lack of clear guidance. Meanwhile, problems such as incomplete content and low information value are found in the disclosed ESG reports. In particular, risk disclosure is relatively obscure, and companies are likely to disclose data that has a positive impact on them and information that is descriptive nature, which is difficult to verify, thus undermining the reliability and authenticity as required for ESG information disclosure.

3.6 Neglecting communication with stakeholders and rating agencies

Some companies only analyze major corporate issues based on their own understanding of various ESG issues without considering the opinions from internal and external stakeholders. As a result, information disclosed by the companies is not the indicator data that stakeholders are most concerned about, which jeopardized the quality of the report. In addition, Chinese companies do not often communicate with mainstream international ESG rating agencies. They tend to give no response or make no statement on certain queries during the rating process, resulting in ratings that sometimes do not fully reflect the ESG performance of these companies.

4. Five recommendations for corporate ESG development

from EY

ESG considerations are affecting the performance of companies in the capital market. While traditional financial indicators provide an important reference for investment decisions, there are risks of misstatement and fraud due to their short-sightedness and easy manipulation. ESG indicators, on the other hand, focus on the sustainable development of non-financial performance of companies, thus revealing their environmental and social risks in the context of global climate change as well as the possible major losses. The organic combination of ESG indicators and financial indicators can provide an objective evaluation of companies from a more comprehensive perspective, thus helping to explore long-term development opportunities for them.

To enhance the overall ESG standards, companies need to make efforts in five

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aspects: ESG governance system, ESG risk management, ESG management system, ESG information collection and information disclosure. They also need to integrate ESG goals into their strategic goals. In the process of ESG practice, on the one hand, companies can take regulatory requirements and industry standards as important guidance. On the other hand, peer practice is also an important reference standard, which can provide relevant guidelines for implementation.

4.1 Improve ESG governance system

Building a governance structure, formulating strategic plans, enhancing risk management, and improving information disclosure are more conducive to the development of corporate sustainability concepts. Led by the board of directors, companies can build a multi-level governance structure, and steadily promote ESG work by clarifying the rights and responsibilities of each level. In addition, companies can appoint a Chief Sustainability Officer (CSO) in the ESG strategic management committee, governance committee or senior management. CEOs of a number of large global companies also serve as CSOs to demonstrate their determination and responsibility for both financial and non-financial values.

4.2 Improve ESG management system

A sound ESG management system is crucial for companies to improve their ESG performance. They can formulate ESG management systems that meet their own sustainable development needs, taking into account laws and regulations, regulatory requirements, market environment and development trends for the industry, stakeholder expectations, corporate development strategic planning and business characteristics, so as to continuously improve ESG performance.

4.3 Enhance ESG risk management

Establishing an ESG risk management and mitigation mechanism and incorporating it into a comprehensive risk management system can improve a company's ability to cope with changes in risk in the future. By referencing domestic and overseas ESG risk standards, companies can formulate their own compatible ESG risk management tools and establish environmental and social risk monitoring mechanisms. Through scenario analysis, stress testing and other methods, companies can identify and respond to potential ESG risks and be able to improve their overall risk management.

4.4 Digital solutions optimize ESG data management system

Digital solutions can help companies better overcome the challenges in the ESG

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management process, thus improving the efficiency and capabilities of ESG management. Based on the current state and challenges of ESG management, companies can formulate different online information collection methods for various business units, as well as set up reasonable reporting and approval roadmap. By carrying out visual monitoring of ESG performance – for example by exporting data and charts –high quality and real-time ESG information can be generated to support management’s decision-making.

4.5 Establish an ESG information disclosure process

Establishing a standardized ESG information disclosure process can promote the relationship between companies and various stakeholders, and allow the companies to response to issues that the stakeholders are. Companies can sort out the standard process of ESG information disclosure by establishing ESG working groups to improve the efficiency and effect of information disclosure. While analyzing the ESG core issues that have a significant impact on the companies’ development and are of concerns to the stakeholders, the companies should identify key stakeholders and carry out materiality assessment so as to clarify the key content of information disclosure, and determine the method, form, and channel of information disclosure. In addition, companies need to maintain regular communication with external rating agencies to ensure that information disclosure results are in line with the purposes and principles of reporting.

5. Roadmap of ESG transformation in traditional industries – Iron and steel industry as an example

As a representative of traditional industries, the iron and steel industry has always attached great importance to the performance of social responsibility. According to Wind’s 2019 data, the iron and steel industry ranked third among all industries in terms of the level of disclosure of social responsibility reports, with a disclosure rate of 56%, following banks and non-bank financial institutions.

Although the proportion of independent disclosure of social responsibility reports is not low, the performance of Chinese steel companies in the international rating is average. This is mainly attributed to the high emission risks posed by the technologies adopted by Chinese steel companies and the fact that the published reports only meet domestic compliance standards.

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Currently, some iron and steel enterprises have realized the importance of ESG for their own development. They have incorporated sustainable development into their strategic development plans and improved their ESG systems by taking various measures. With their outstanding ESG performance, these companies have also been recognized by domestic and overseas rating agencies.

Case study on an advanced company

Baoshan Iron & Steel Co., Ltd. (Baosteel) is the world's leading modernized and integrated iron and steel company. The company has been putting sustainability into practice and shouldered the responsibility of sustainable development. Since the release of its first social responsibility report in 2005, the company has released sustainable development reports for 16 consecutive years, demonstrating its commitment to the public, its responsibility to the society and its contribution to the nation.

With the continuous development of ESG and the global attention to climate change issues, Baosteel has optimized its existing sustainable development management system and made new commitments on various ESG issues. Its ESG performance has been highly recognized by overseas agencies. In 2021, the company has improved in multiple ESG ratings and indexes at home and abroad.

In terms of environment, Baosteel has established a holistic environmental management system to further promote ultra-low emission of waste gas, zero discharge of wastewater, and zero discharge of solid waste from the factory, in order to develop as a global zero scrap steel factory. In response to the risks brought about by climate change, the company has formulated its carbon neutrality goals of "achieving carbon peak in 2023, becoming technologically equipped in 2025 to reduce carbon by 30%, then reducing carbon by 30% in 2035, and eventually achieving carbon neutrality in 2050". This is on top of other carbon neutrality action plans, including low-carbon metallurgy and smart manufacturing, as the company puts the green and low-carbon development strategies into practice.

Baosteel advocates sustainable development through product life cycle assessment

In addition to its own operations, Baosteel cooperates with business partners

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to actively promote the low-carbon development of the entire value chain of the iron and steel industry. In 2003, Baosteel began to conduct life cycle assessment (LCA) of iron and steel products, put forward environmental performance evaluation and comparison methods for key products and establish evaluation models to continuously improve the green attributes of products. In 2021, Dr. Liu Yinghao of Baosteel was elected as the chairman of the new session of LCA Expert Committee of the International Iron and Steel Institute – one of the largest and most active industry associations in the world.

In terms of society, Baosteel actively promotes the evaluation and certification of its business ethics, information security and network security system, and provides all employees with the necessary training for sustainable development. All of its existing factories have been certified with the ISO 45001 certification. In addition, the company continues to improve sustainability through supplier management, incorporate ESG requirements into existing management systems and contract templates, formulate social responsibility audit plans for suppliers and promote the implementation of the plans to create shared value through sustainable development.

Baosteel promotes green construction of supply chain for industrial products

Baosteel adheres to the concept of green and low-carbon development and the value of “synchronization of green development”. It actively promotes and leads the construction of a green supply chain and helps its own production bases to achieve sustainable development. The company gives priority to purchasing green products – the proportion of green procurement in 2020 was 25%.

While fostering its vigorous development, Baosteel is devoted to fulfilling social responsibilities, assisting the rural revitalization projects, actively participating in public welfare and charity, and contributing to social development.

In terms of corporate governance, Baosteel has gradually established an ESG management structure to form a three-tier governance system consisting of the board of directors; strategy, risk and ESG committees; and a ESG working group. The company takes ESG into consideration in its top-level design, and

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integrates it with its risks and strategies, to promote the innovation and upgrading of green business, promote the continuous improvement of corporate value, and achieve high-quality development.

In addition, the company has sorted out its internal norms, reorganized and released a series of institutional documents such as its Corporate Code of Conduct to clarify the ethical standards that the company and its partners need to uphold under various ESG issues.

Baosteel has also improved its ESG management information system. It established and improved its ESG management mechanism and used information technologies such as platformization and automation to establish ESG information collection methods, optimize reporting and approval methods, reduce human errors, and eliminate deviations caused by personnel turnover and replacement. As a result, it has improved its ESG management efficiency, better controlled ESG risks and explored ESG business opportunities.

Baosteel improves ESG management level by leveraging platformization and automation

In response to clients' urgent needs for the carbon footprint of products and the actual needs of its own carbon asset management, Baosteel commenced the construction of its carbon asset management and product carbon footprint information system in 2021. The advancement of this project will be conducive to the compilation of statistics on its carbon asset management and product carbon footprint information, which is an important management approach for the company to achieve carbon neutrality.

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