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Wind ESC

A Tailwind for Sustainable Investment



Wind ESG

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Wind ESG Rating.....	2
Wind ESG Rating Products	2
Wind ESG Products Features.....	2
Wind ESG Rating Methodology	5
Rating Framework	5
Rating Process	6
Data Collection and Quality Assurance	9
Company Communication Channel and Feedback Process	10
PiT Underlying Data and Ratings	10
Coverage and Update Frequency	11
Annual Review	12
Wind GHG Emissions Database.....	13
GHG Emissions Data Features	13
GHG Emissions Data Applications	14
Wind ESG Products and Services	16
About Wind	18
Disclaimer	19
Contact us.....	19

Wind ESG Rating

Based on thorough research on international standards and guidelines including ISO 26000, SDGs, GRI Standards, ISSB Standards, TCFD Recommendations, etc., Wind combines the policies and status quo of ESG disclosures of Chinese companies and leverages its strong data collection, analysis and processing capabilities to build a unique ESG rating system, known as 'Wind ESG Rating'. Wind ESG Rating provides fully transparent underlying data and scores, enabling users to integrate ESG with fundamental analysis, quantitative analysis, risk management and indexing to drive the implementation and development of sustainable investment in China.

Wind ESG Rating Products

1. Listed Company Wind ESG Rating
 - Covering all China A-Shares and Hong Kong listed companies
 - Aligned with the international framework while incorporating the characteristics of the Chinese market, providing underlying data, scores and ratings
2. Bond Issuer Wind ESG Rating
 - Covering issuers of public offering debentures
 - Indicators reflect the characteristics of bond issuers, providing transparent underlying data
3. Fund ESG Rating
 - Covering mutual funds in China
 - Providing fund ESG rating, fund carbon accounting (carbon footprint) and ESG related controversies

Wind ESG Products Features

1. **Underlying Data: solving the problem of missing and unstandardized data, providing early warning of ESG risks**
 - **Broad Coverage:** covering 10,000+ companies, including all China A-shares,

Hong Kong listed companies and bond issuers.

- **Long Data Time Span:** covering ESG data since 2017.
 - **Extensive Local Data Sources:** daily tracking of 20,000+ alternative data sources from regulatory agencies, news media, industry associations, NGOs, etc., serving as an objective source of information to validate companies' self-disclosures and identify potential risk and opportunities.
 - **Accurate and Efficient Data Governance:** based on the latest information collection technologies such as AI and big data, combined with independent detailed audits and comprehensive logic testing, data quality is ensured through sophisticated internal data procedures at all aspects.
 - **Open Company Communication Channel throughout the Year:** established effective company communication channel to accept feedback throughout the year, obtaining the latest information in timely manner.
 - **Real-time Update of Underlying Data:** ESG information is updated in a timely manner; ESG news is monitored on an ongoing basis; penalties and lawsuits are alerted daily and significant changes trigger analyst reviews and re-rating.
2. **Rating Model:** contextualized indicators setting, equity penetration to identify hidden risks, open and transparent methodology
- **Rating Framework with Chinese Characteristics:** reference to domestic and international ESG rating frameworks, shed light on Chinese ESG concepts, incorporating indicators responding to the national strategy such as carbon reduction targets, green credit, corporate innovation certification, etc.
 - **Material ESG Issues:** identifies and assigns weights to material ESG issues for 72 industries, highlighting the main ESG risks and opportunities in each industry.
 - **Capture Companies Operation Risk Thoroughly:** based on equity penetration, ESG assessment covers major affiliated companies.
 - **Open and Transparent Data and Methodology:** provides fully transparent ESG data for each individual stock, from ESG indicator scores and weights to

the underlying raw data, helping investors to flexibly apply ESG data to research and investment decisions.

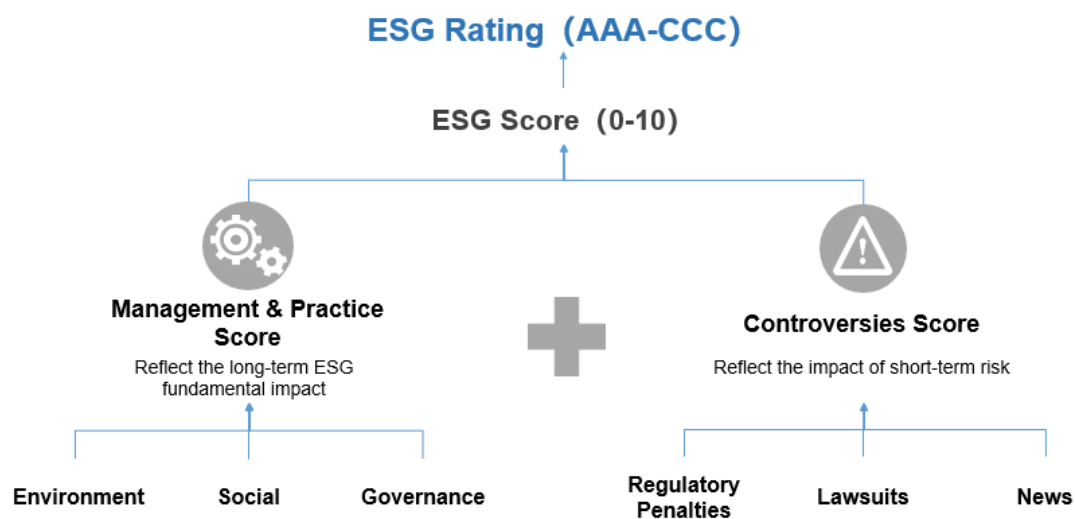
- **Dynamic Review of Rating Model:** Wind ESG continuously monitors global ESG development trends, combining international experience with local practices, and based on latest data analysis and user feedback, the rating model is regularly reviewed and refined to keep pace with the current market practice.

Wind ESG Rating Methodology

Wind ESG Rating anticipates and assesses the company's essential ESG performance, risks and its ability to operate sustainably. It measures the company's commitment and performance in ESG, helping investors and research analysts to identify important risks and opportunities in ESG investments.

Rating Framework

The Wind ESG Rating framework is composed of management & practice and controversies assessment, which can comprehensively reflect the company's long-term ESG fundamental impact and the impact of short-term risk. Focusing on the ESG risks and opportunities of each industry, the companies are rated on a AAA-CCC scale relative to the performance of their industry peers.



Rating Process



1. Rating Framework Construction

Building on the foundation of domestic and international ESG policies and standards, Wind has developed our proprietary ESG rating framework, considering the development of Chinese capital market and integrating the characteristics of the Chinese companies in various industries.

- 500+ management & practices indicators, covering E, S and G pillars, reflecting long-term ESG fundamental impacts
- 1,200+ risk labels, covering news, regulatory penalties and lawsuits, reflecting impact of short-term risks

Wind ESG Rating (AAA-CCC)										
Management & Practice									Controversy	
3 Pillars	Environment			Social			Governance			News
29 Issues	Environment Management	Energy	Climate Change	Employment	Development and Training	OHS	ESG Governance	Directors, Supervisors and Senior Management	Anti-Bribery & Corruption	Regulatory Penalties
	Raw Material	Waste	Air Pollutions	Products & Services	Research & Innovation	Information Security & Privacy Protection	Ownership & Control	Audit	Anti-Monopoly & Fair Competition	
	Waste Water	Water Resource	Biodiversity	Customers	Supply Chain	Community	Tax			
	Green Building*	Sustainable Finance*		Access to Health Care*	Inclusive Finance*					
500+ data 2,000+ data points	<ul style="list-style-type: none"> Clean Production Audits Clean Energy Utilization Identifies and Responds to Climate Change Risk and Opportunities Scope 1, Scope 2 and Scope 3 GHG emissions ... 			<ul style="list-style-type: none"> Non-discrimination and Diversification Management System High Tech Enterprise Certification Leadership Training Product Recall Program ... 			<ul style="list-style-type: none"> Turnover of Directors, Supervisors and Senior Management Percentage of Women on Board Training on Antitrust and Fair Competition Whistleblowing and Complaints ... 			<ul style="list-style-type: none"> Solid Waste Pollution Safety Incidents Employment Related Penalties Executive Change Product Infringement Party Disciplinary Penalties ...

Note: *Sector Specific Issues

2. Assessed Indicators Selection

On the basis of the comprehensive ESG database, Wind ESG Rating selects assessed indicators based on:

- consistency with the international ESG disclosure and management framework, and the characteristic of Chinese companies,
- indicator effectiveness and data availability, and

- representation of ESG characteristics of each industry.

3. Material Issues and Weights Determination

- Based on China's national context and industrial research on various industries, Wind ESG Rating utilizes the data accumulated over the years to analyze market hotspots, regulatory focuses, ESG performance of the companies, etc. Based on Wind industry/sub-industry classification, Wind ESG Rating identifies material issues and determines weights for 72 industries.
- Under the environmental and social pillars, each industry has different material issues. All the issues under governance pillar are material to all industries.
- Material issues are selected and weights are determined with due consideration to ESG risks and opportunities, data availability and quantitative analysis results, reflecting both the relative impact of each issue within each industry and the negative or positive contribution of each industry to the environment and society relative to other industries.

4. Rating and Scores Calculation

To arrive at the timely and scientifically sound ESG rating and scores, Wind ESG Rating combines automated technologies and analyst reviews.

- Wind ESG Rating is composed of ESG core assessment model, environmental risk exposure (incorporated in the E pillar in the core assessment model) and controversies assessment model, which comprehensively reflects the company's ESG management practice level and impact of short-term risks.
- The indicators in the ESG core assessment model are scored based on the scale of 0-10, the E/S/G pillar scores are the weighted summation of the material issue scores, and the management & practice score are the weighted summation of three pillar scores.
- The environmental risk exposure assessment model identifies subsidiaries of the assessed company through Wind Equity Penetration, monitors neighborhood pollution levels and quantifies the atmospheric and water

environment risk exposure level by combining GIS technologies and relevant environment data.

- The controversies assessment model evaluates the impact of controversial events on the company based on event severity, time of occurrence, information source, etc.

5. Publication

Wind ESG Rating is updated on an ongoing basis, Wind ESG and controversies scores are updated daily and corresponding data are released on various channels, including Wind Financial Terminal.

Wind ESG Rating	ESG Score	Description
AAA	[9,10]	Exceptionally high degree of corporate management and sustainable performance, almost no ESG risk
AA	[8,9)	High degree of corporate management and sustainable performance, low ESG risk
A	[7,8)	Relatively high degree of corporate management and sustainable performance, relatively low ESG risk
BBB	[6,7)	Average degree of corporate management, sustainable performance and ESG risk
BB	[5,6)	Relatively low degree of corporate management and sustainable performance, relatively high ESG risk
B	[4,5)	Low degree of corporate management and sustainable performance, high ESG risk
CCC	[0,4)	Exceptionally low degree of corporate management and sustainable performance, exceptionally high ESG risk

Data Collection and Quality Assurance

Over the past 20 years, Wind has been dedicated to the collection, processing and collation of various types of data in China's financial market, handling the complicated and scattered data in the market through rigorous scientific methods to create an accurate and complete database in China. Based on the latest information collection technologies such as AI and big data, combined with independent detailed audits and logic test, data quality is ensured through various rigorous procedures at all aspects.



1. Data Collection

- **Automated Collection:** employing website analysis, picture identification, PDF analysis and other proprietary data science and NLP technologies to ensure the accuracy and efficiency of data collection.
- **Wide Variety of Data Sources:** other than company's self-disclosure, Wind ESG database also includes data from 20,000+ diversified data sources, including:
 - 13,000+ regulatory agencies
 - 8,000+ media
 - 800+ industry associations, NGOs, etc.
- **Detailed Audits:** primary data are input by two people with cross checking procedures.
- **Timely Update:** database is updated whenever there is new information available.

2. Data Validation

Data accuracy is ensured through various means and rigorous procedures, all data are input into the temporary database, and are manually verified and automatically

checked by the sophisticated algorithms.

- **Logic Test:** back office real-time testing process.
- **Data Audits:** daily sample audits and weekly analysis on audit results.
- **Independent Quality Control:** independent quality control team regularly conducts in-depth quality review according to a well-established quality control procedure.
- **Technology Iteration:** based on the different characteristics of data, tools are continuously refined to enhance the data quality.

Company Communication Channel and Feedback Process

Wind ESG has established company communication channel as part of our standardized data procedures. We provide companies with their own report on a regular basis. Companies can provide feedback based on publically available information. If the data provided by the companies are not publicly available, confirmation of the authenticity of the information must be confirmed in the form of a company signature. Once the Wind ESG analysts have reviewed the feedback, information will be incorporated into the latest assessment, and Wind ESG will open a window for rating updates every three months. Companies can also send an email to GR.ESG@wind.com.cn at any time if they have any questions or feedback. We are committed to reviewing and updating company profiles as required in a timely manner to ensure the timeliness of Wind ESG Rating.

PiT Underlying Data and Ratings

Point-in-Time means that all data and scores are documented and calculated in the chronological order in which they were published and processed. The original data is

not overwritten by factors such as restatements of company data, providing the most up-to-date data and corresponding scores available at each point-in-time, thus avoiding forward-looking bias or overly conservative lags, in order to facilitate quantitative analysts to more accurately model real-world situations.

- **Complete Database:** the standard Wind ESG database has several data tables with close collinearity between them. An update of the underlying data will lead to a simultaneous update of the corresponding issue, pillar, management practice and ESG scores.
- **Data Structure Design:** take the "Wind ESG*** Data Table" as an example, the data table sets the fields "A***e" and "R***d", both of which are unique fields. If a company updates the historical data of an indicator by restatement, the updated data will be stored again rather than overwriting its previous data, and the data before and after the restatement can be distinguished by the difference in the content of these two fields.

Coverage and Update Frequency

- Wind ESG Rating has covered all China A-shares, Hong Kong listed companies and issuers of public offering debentures. The underlying data starts since 2017, and the rating covers 2018 to date.
- Wind ESG Rating update mechanism:
 - company made new ESG disclosures
 - if company did not publish ESG report within 7 months after the end of accounting year, the rating would be updated on the first day of the 8th month after the end of accounting year
 - ESG score changed by more than 1.5 compared with the score at the previous rating date
- Update frequency of different types of Wind ESG data

Category	Update Frequency
ESG Rating	Update according to above update mechanism
ESG Score	Daily
Controversies Score	Daily
Management & Practice Score	Update with underlying data and ESG
Pillars, Issues, Sub-issues Scores	Update with underlying data
Underlying data	Monitor and update on ongoing basis

Annual Review

Typically, Wind ESG conducts annual review on material issues and rating methodology based on international and domestic ESG guideline, industrial research, ESG data analysis, client consultation and etc., to reflect the current ESG practices in the market.

Wind GHG Emissions Database

As the carbon peak and neutrality goals approach, climate change is on top of the agenda of regulators and investors. Strengthening climate-related risk management is becoming a global consensus. Through the in-depth research on international carbon emission assessment methodology and with the combination of characteristics of the Chinese companies and industries, Wind launched the GHG Emissions Database (including disclosed and estimated data), meeting diversified carbon data application scenarios and needs.

GHG Emissions Data Features

Coverage	All China A-shares, Hong Kong listed companies and bond issuers
Time Span	Since 2017
Update Frequency	Annually
Methodology	<ol style="list-style-type: none"> 1. Construct calculation model based on frontier research results on carbon data 2. Determine parameters with reference to international benchmarks and the characteristics of Chinese companies and industries 3. Incorporate absolute and relative emission intensity indicators to form a carbon emissions database

Indicator Name	Unit	Definition
Total GHG Emissions (Scope 1 and Scope 2)	Tons of carbon dioxide equivalent	Company-wide GHG emissions
GHG Emissions / Million in Revenue (Scope 1 and Scope 2)		
Direct GHG Emissions (Scope 1)		Direct emissions from company-owned or controlled sources
Direct GHG Emissions / Million in Revenue (Scope 1)		
Indirect GHG Emissions (Scope 2)		Indirect emissions from purchased electricity and heat consumed by the company
Indirect GHG Emissions / Million in Revenue (Scope 2)		

GHG Emissions Data Applications

1. Empowering Financial Institutions:

- **Assess investment risk:** understand portfolio's carbon emissions, measure and manage climate change-related transition risks, and optimize investment strategies.
- **Design low-carbon products:** explore low-carbon investment opportunities and construct portfolio that can meet the carbon peak and neutrality goals.
- **Disclose carbon footprint:** disclose and manage portfolio carbon footprint to meet requirements of regulators and investors.

2. Empowering Companies:

- **Peer comparison:** study carbon management of other peers, and establish

the company's emission reduction plan and target baseline.

- **Examine emissions risks:** track carbon emissions of companies in the supply chain, and examine the potential cost impact of carbon reduction.
- **Optimize carbon disclosures:** assist companies in gradually improving transparency of carbon reduction.

Wind ESG Products and Services

Wind ESG covers data with different granularities. Through various channels such as Wind Financial Terminal or DataFeed, users can easily access the data and flexibly apply it in research and decision-making to manage ESG risks, implement ESG investment strategies, and respond to regulatory requirements.

Stock

- Wind ESG Rating Special Application: provide ESG data, information, research reports, forums, serving as one-stop ESG information platform.
- Stock Snapshot: displaying ESG rating information of companies from multiple dimensions.
- In-depth Information (F9): comprehensive analysis of ESG performance of individual stocks.

Fund

- In-depth Analysis: analysis of ESG performance of the fund's underlying investments in terms of industry dimensions, rating trends, theme labels, etc.
- Multi-dimensional Comparison: supports multi-dimensional comparison, such as time, peer analysis (including funds, indices, fund categories, etc.) and fund ESG score composition.
- Risk Warning: analysis of the performance of controversial events of fund TOP 10 holdings is updated on a daily basis, as well as the number and ranking of controversial events of fund underlying investments.
- Carbon Emission Analysis: the first domestic fund carbon accounting system, providing fund carbon emission information and industry penetration analysis.

Bond

- In-depth Information (F9): comprehensive analysis of ESG performance of bond issuers.

- ESG Green Bond: access to a holistic view on ESG bond issuance.

AMS

- AMS Real-time Monitoring: incorporates ESG rating, ESG score etc., to gain a real-time view of the ESG performance of all holdings in the portfolio.
- AMS Asset Allocation: provides an overview of ESG distribution of the portfolio and enables comparison with benchmarks and other funds.
- AMS Portfolio Report: ESG rating and portfolio carbon emissions are integrated into various reports such as market report, operation report and performance report.
- AMS Performance Attribution: ESG rating factors are incorporated into the performance attribution evaluation system to explore ESG investment strategies with excess returns.
- AMS Compliance Risk Control: pushing ESG risk events of investment portfolios in real time with a variety of ESG compliance strategies.

EXCEL Add-in, Data Explorer

- Batch export of ESG ratings and scores, enabling comparison across industries and sectors.
- Provide data export service within a specific time range to grasp changes in ESG rating scores of companies.
- Deeply embedded EXCEL add-in to meet the personalized needs of ESG investment.

About Wind

Headquartered in Shanghai International Financial Center in Lujiazui, Wind Information Co., Ltd. is a leading company in financial software services. Wind is a leading provider of financial information services in China, and an indispensable partner for lots of securities companies, fund management corporations, insurance companies, banks, investment firms, and media. Globally, Wind is also favored by widely used by qualified foreign institutional investors (QFII) approved by China Securities Regulatory Commission. Wind's clients also include well-known financial academic research institutions and media agencies. Wind's data is also frequently cited by authoritative Chinese and English media, research reports, and academic papers.

In the field of financial data, Wind has built a complete and accurate large-scale financial engineering and financial data center on financial and securities data in China. Wind's data covers stocks, bonds, funds, foreign exchange, financial derivatives, commodities, macroeconomics, and financial news. Wind meets the needs of institutional investors by timely update. To satisfy different clients in financial industry such as investment institutions, research institutions, academic institutions, and regulatory agencies, Wind has developed a series of professional analysis software and application tools for information retrieval, data extraction and analysis, and investment portfolio management applications. Through these terminal tools, users can obtain timely, accurate and complete financial data, information and various analysis results from Wind on a 24x7x365 basis. Wind closely follows the ever-changing financial market and continues to develop and extend into new areas, providing customers with faster, broader, and deeper data and information services. Sharing the value of data, Wind has the vision to be a global company that makes data available at your fingertips.

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