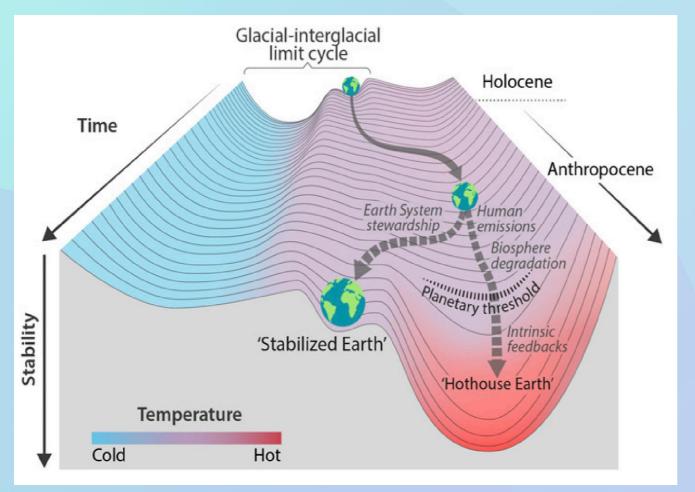


李银鹏 Yinpeng Li 新西兰国际全球变化研究所 International Global Change Institute/ CLIMsystems, New Zealand



热室地球与红色警报 Hothouse Earth and Code Red Warning



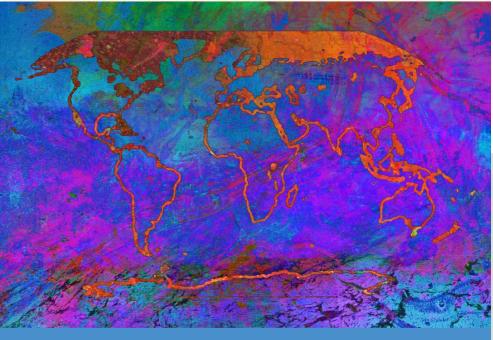
Trajectories of the Earth System in the Anthropocene. Stability landscape showing the pathway of the Earth System out of the Holocene and thus, the out of the glacial-interglacial limit cycle to its present position in the hotter Anthropocene. Source: Steffen et al. (2018)



Global warming likely to blow past Paris limit

IPCC AR6 Report

'Code red' warning





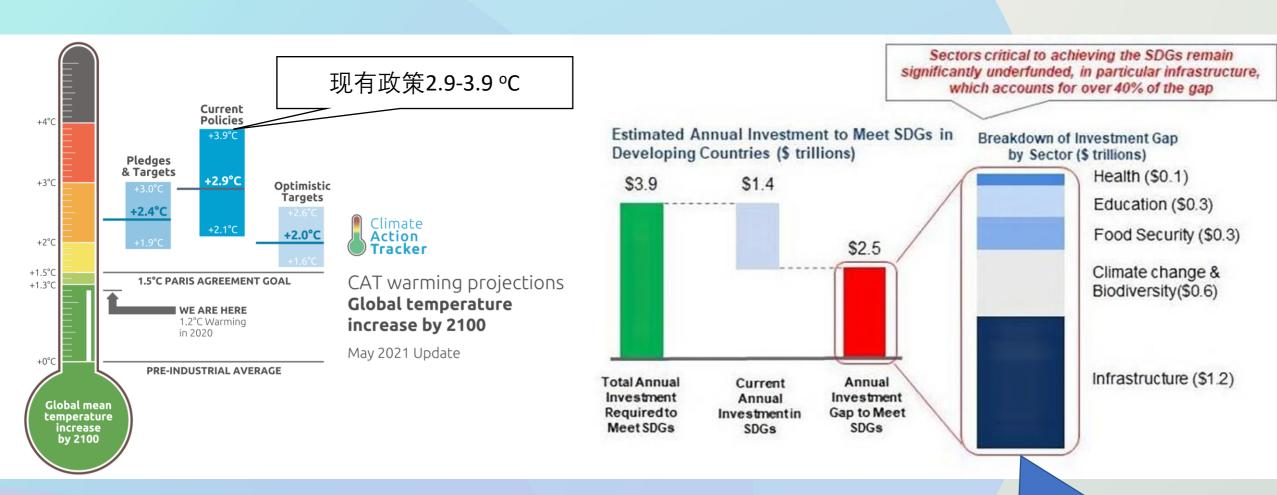
Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change





气候相关投资的紧迫: 巨大的政策和资金缺口 The Urgency of Climate Financing





The Climate Action Tracker (hereafter CAT) Thermometer. Source:

https://climateactiontracker.org/global/cat-thermometer/

SDG 投资缺口2.5Trillions

气候相关财务信息披露 (TCFD 2017) Climate-Related Financial Disclosure

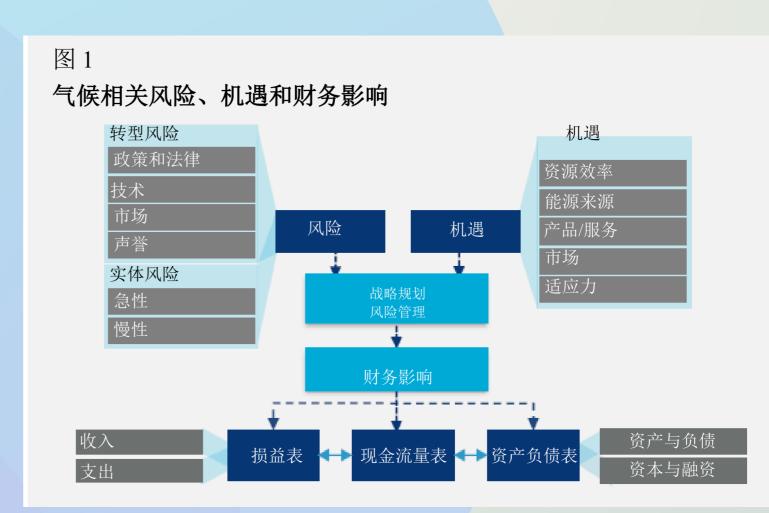


转型风险(Transitional risk)

实体风险 (Physical risk)

财务影响(Financial impact)

风险与机遇 (Risks and opportunities)



气候相关财务披露核心要素 Climate-Related Financial Disclosure Core Elements

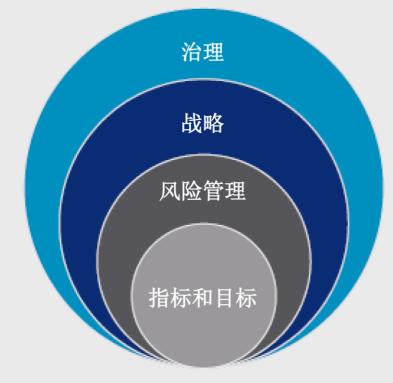


要企业直面气候风险,主动参与 Corporate-level engagement

直指金融财务风险与机遇不只是风险合规 Risk compliance

增加情景分析 Scenario analysis

系统前瞻思维 Forward systems thinking 图 2 气候相关财务信息披露的核心要素



治理

机构关于与气候有关的风险和机遇的治理

战略

与气候有关的风险和机遇对机构的业务、战略和财务规划的实际和潜在影响

风险管理

机构识别、评估和管理气候相关风险的流程

指标和目标

用以识别和管理与气候有关的风险和机遇的指标和目标

气候相关财务风险的情景分析 Climate- Related Financial Scenario Analysis

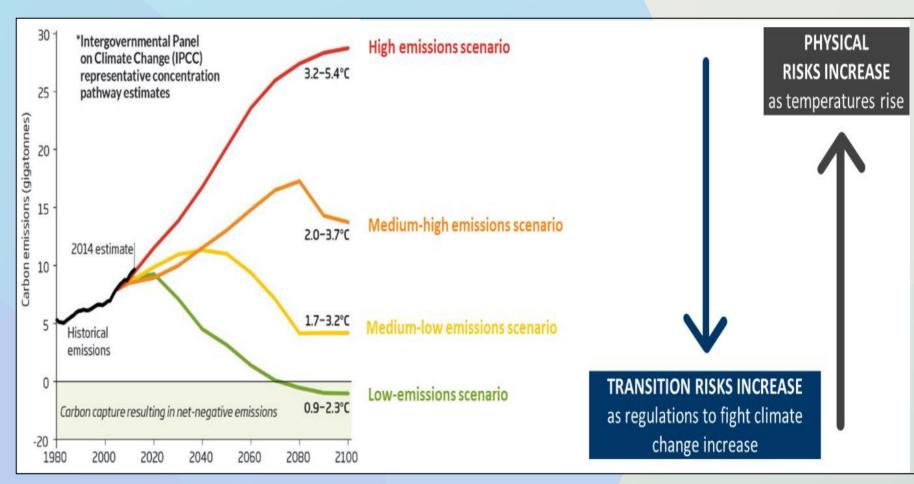


系统思维 Systems thinking

前瞻战略 Forward strategy

情景规划 Scenario planning

压力测试 Stress testing



Climate physical risk and transitional risks in relation to climate change scenarios. Source: IPCC 2014

环境、社会、及公司治理 (**ESG**) 披露框架和要素 ESG Framework and Metrics



ESG代表非财务指标,是可持续性的三点核心要素 Mainly non-financial reporting

- · ESG代表非财务指标,是衡量投资可持续性的三大核心要素
- 传统的企业评价主要基于公司的财务指标,包括收入利润、盈利水平、现金流状况、偿债能力等。
 ESG投资更提倡通过研究非财务指标实现长期持续回报
- ESG正在成为投资中重要的"排雷"工具。ESG投资对于排查公司风险事件,促进企业可持续发展有巨大帮助
- 资产管理人已逐渐认识到 非财务指标在投资决策中 的重要性





气候—环境、社会及治理 (C-ESG)信息披露 国际标准与框架的制定机构



C-ESG International Standards and Frameworks

联合国负责任投资原则 (UNPRI)

可持续发展目标 (SDGs)

国际标准组织(ISO)

气候相关财务信息披露工作组 (TCFD)

C-ESG international governing principles and standards













C-ESG International Reporting Frameworks

















评级与服务机构:金融与数据服务平台 Ratings, Services and Data Providers



数十家的评级服务商 Ratings service business

数以千计的服务机构(公司) Data and reporting services

C-ESG成为一个跃进发展的领域 Emerging profitable market

制度价值、社会价值、经济价值、地 球环境价值、技术价值凸显。

Significant values for ISEET systems



Moody's **Bloomberg**

Dow Jones Sustainability Indices







THOMSON REUTERS MSCI





ESG-exclusive















Specialized

Data / Service provider

Rating provider











carbone 4



Proxy advisor

ΑI

TRUVALUE LABS

arabesque s-ray















有形资产与无形资产的市值 Tangible and Intangible Assets



1995年到2015年的20年之间,由商誉、客户满意度、公司安全纪录、及其对环境友善度表现等无形资产构成的无形资产占比,由68%上升至84%,

而在新冠发生后,更进一步激化无形资产的占比升高至90%,显示投资人对于企业的社会责任等ESG表现,赋予更高的评价。



S&P500上市公司总市值组成

C-ESG对公司的益处 Financial Benefit of C-ESG for Businesses



增加收入,开发可持续产品 Increase revenue

吸引人才 Retain top talent

赢得新客户 Gain new customers/investment

建立品牌形象 Improve brand image 降低风险(转型和物理) Reduce risk (transitional and physical)

提高生产率,节约环境能源 Increase productivity and reduce energy consumption



Reducing costs and liabilities

For example:



- reducing potential liabilities, such as those stemming from environmental contamination
- increasing engagement, and therefore productivity, of the workforce
- using resources (e.g. energy and water) more efficiently



Increasing revenue

For example:



- identifying new, sustainable product lines
- attracting and retaining top talent through strong company values
- acquiring new customers as a result of better brand image

C-ESG 服务的技术体系 Technologies in C-ESG Services

Climate Insights

Analyst-driven vs. Al-driven ESG

Analyst-driven ESG research

Derives ratings in a structured data model



Analyst role at the end of the process allows subjectivity to color results

Al-driven ESG research

Derives signals from unstructured data



Analyst expertise at the beginning of the process produces consistent results



Following the Trend: ESG, AI & Big Data

a. Most frequently occurring E&S topics with positive sentiment

b. Most frequently occurring E&S topics with negative sentimen

Infrastructure Failures with Impact to the Public

Impacts on Natural Habitats
Impute to Legally Potential Areas. Air Pollution
GHG Emissions Pollution Provision. Lend Acquision Issues
Non-Discrimination & Equal Opportunity
Involution Resemblement Pollution Ricks
Fuscod and Child Labor Impacts on Water Sources Cender Issues
Worker Health and Safety

Risk Management Process

Transparent Working Conditions
Community Engagement

Staff E&S Competency

Resource Efficiency E&S Management Programs

Impacts on Water Sources State E&C Competency
Involuntary Resettlement Impacts on Natural Habitats
E&S Management Programs
Commitment to ESO Performance
Worker Safety Hazard
Protection of Workers and Communities
Occupational Health

Risk Management Process Performance Monitoring

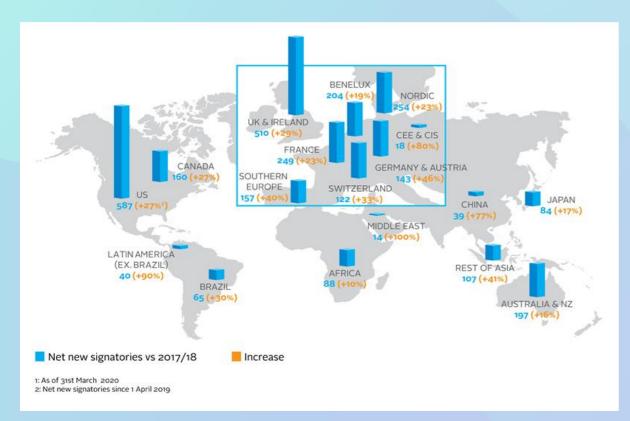
rotection of Contract Workers Forced and Child Labor Biodistrain Manager Pollution Risks

Water Pollution Waste Management Impacts on a Community
Impacts to Legally Protected Areas

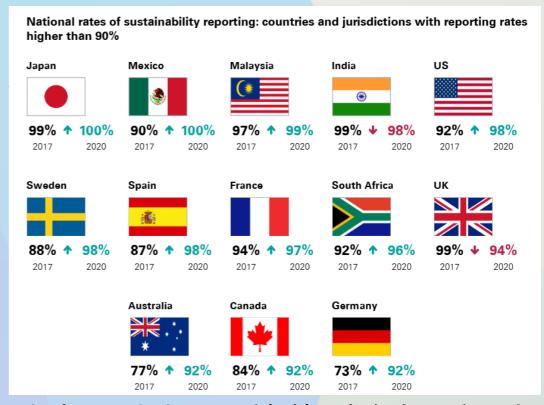
Impacts to Legally Protected Areas
Air Pollution Worker Feedback and Recourse

C-ESG 披露的国际实践与趋势 C-ESG International Practice and Trend





更多的企业机构加入联合国负责人投资的倡议 New signatories join the Principles for Responsible Investment



全球国际大企业几乎都披<mark>露气候与环境风险</mark> 信息

Almost all the major international corporations report on their climate information

C-ESG在不同国家的进展 National Legislation Progress



13 APRIL 2021

NZ becomes first in world for climate reporting



HON DR DAVID CLARK



HON JAMES SHAW

Climate Change

Commerce and Consumer Affairs



REGULATION

Commerce and Consumer Affairs Minister David Clark says Aotearoa New Zealand has become the first country in the world to introduce a law that requires the financial sector to disclose the impacts of climate change on their business and explain how they will manage climate-related risks and opportunities.

The Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill has been in Parliament and will receive its first reading this week.



REGULATORY **ACTIONS**

Rulemaking Index

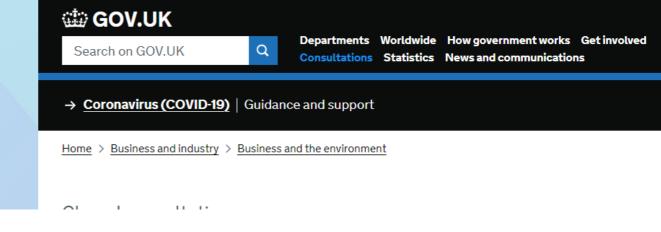
Interim Final Rules

Proposed Rules

Final Rules

U.S. SECURITIES AND **EXCHANGE COMMISSION**

DIVISIONS & OFFICES



中国证券监督管理委员会令

第 182 号

《上市公司信息披露管理办法》已经2021年3月4日中国证券监督管理委员会2021年第3次委务会议审议通过,现予公布, 自2021年5月1日起施行。

> 易会满 2021年3月18日

Comments on Climate Change Disclosure

ENFORCEMENT

Submitted Comments

(Click here for meetings with SEC officials)

A: 19 B: 2,274

C: 2,059 Concept Releases D: 1.502

Comments have been received from individuals and entities using the following Lei

上市公司信息披露管理办法

可持续金融生态系统 Sustainable Finance Ecosystems

全球范围内,跨领域的合作 Global scale, cross sector cooperation

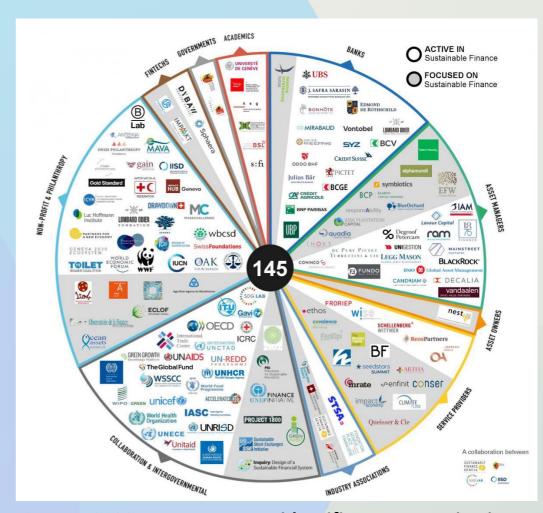
标准和规范的一致化 Aligned standards and regulations

市场价值的开拓 Exploration of market value

技术的进步和创新 Technological progress and innovation

逐渐形成完整的产业链和价值链 Complete supply chain and value chain





The Geneva 2030 Ecosystem map identifies 145 organisations working on sustainable finance in some way.

Source: https://www.iisd.org/articles/geneva-sustainable-finance



中国已初步建立一个绿色金融体系,信息披露作为其中一个重要支柱

China has Established a Green Finance System Information Disclosure, Noted as One of the Most Important Pillars

- ➤信息披露作为其中一个重要支柱,也逐步从非强制走向了半强制。 From voluntary to semi-mandatory
- ➤绿色资本市场上建立了一系列相关的披露标准
 Set up standards and regulations for green finance market
- ➤证监会也正在牵头制定更加严格的C-ESG信息披露标准,
- ▶人民银行正在进一步加强对金融机构的环境信息披露要求。
- ▶随着碳中和战略的逐步展开和落地,需要更多、更细的监管。





绿色金融体系的五大支柱 Five Pillars for Green Finance Systems



- I. 绿色金融标准体系
- II. 金融机构监管和信息披露要求
- Ⅲ. 政策激励约束体系
- IV. 绿色金融产品和市场体系
- V. 绿色金融国际合作

Green Finance Systems

Deal specifically with green investments, such as the Green Climate Fund or financial instruments for green investments, including their specific legal, economic and institutional framework conditions.

Green Finance standards systems

Guidance Regulations Taxonomy Indicators and Information Disclosure ESG TCDF PRI

Finance

Regulatory

Policy incentives

Loans Insurance Subsidies

......

Products and Market Green loan

Green

Finance

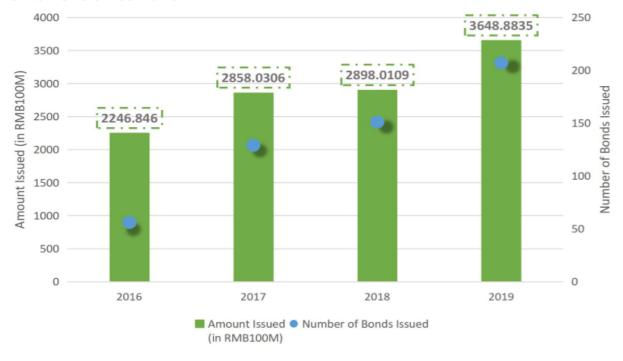
Green load Bonds Funds Carbon Market Green
Finance
International
Cooperation

G20 IPSF NGFS

...

中国色债券发行数量及总量 Green Bond and Taxonomy in China

Table 1.3 Amount and Number of green bonds issued by Chinese institutions since 2016



Source: CBI and Xinhua Green Bond Database

(2016-2020, 单位: 亿元人民币) 中国绿色债券发行量, 全球第二



6. Waste

disposal,

pollution

prevention

and treatment

projects

11.Energy

conservation

and

environmental

protection services

10. Green transportation

9. building

energy

efficiency and

reen building

绿色债券目录 (Green credit taxonomy)

7. Renewable

energy and

clean energy

8. Rural and

urban water

projects

绿色金融产品 Green Finance Products

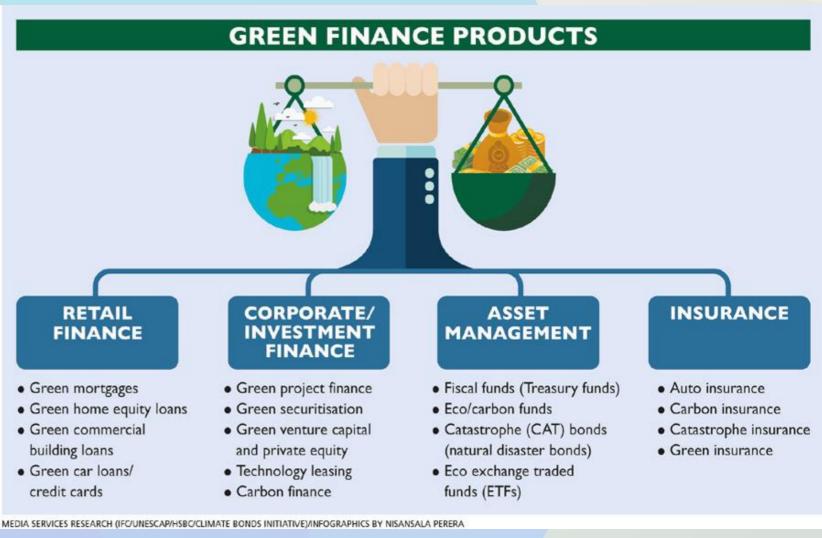


零售金融 **Retail Finance**

企业投资、金融 Corporate Investment/Finance

资产管理 **Asset Management**

保险 Insurance



Green finance products. Source: https://lmd.lk/ecosystem-for-growth/green-financeproducts/

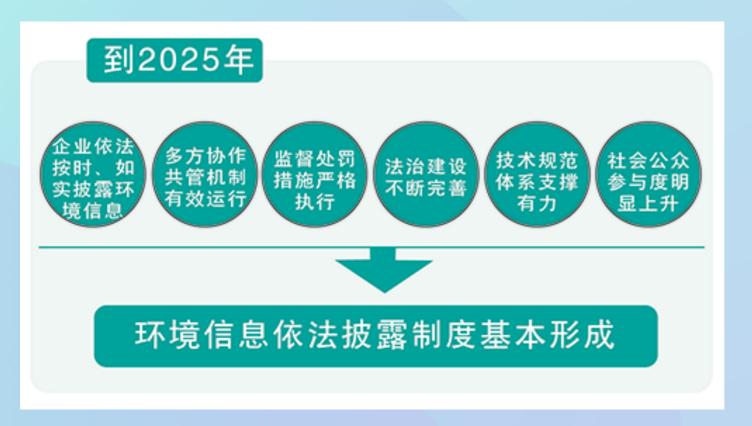
生态环境部(2021年5月24日) 环境信息依法披露制度改革方案

Ministry of Ecological Environment (MEE) (24 May 2021)

Reform Plan for the System of Law-Based Environmental Information

Disclosure





(最高人民检察院、生态环境部、工业和信息化部、国家发展改革委、中国人民银行、国务院国资委、中国证监会)

(三)细化工作安排

印发管理办法、格式 准则

2021年

2022年

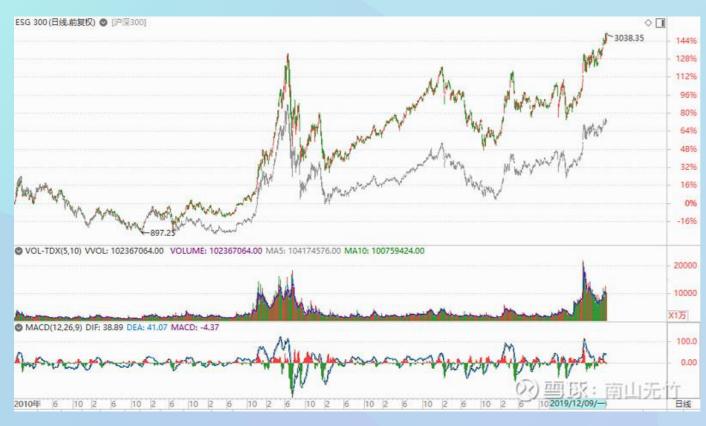
完成上市公司、发债 企业信息披露有关文 件格式修订

开展环境信息依法披露 制度改革评估

2023年

ESG指数, ESG基金的表现 ESG Index and ESG Fund Performance





从2010年至今,国证ESG 300指数远远跑赢了沪深指数的走势,尤其是2013年6月历史大底之后,一直持续跑赢<u>沪</u>深300指数,这个结果值得大家深思。

指数代码	399378
指数名称	国证ESG 300指数
指数类别	成份类指数
创建人	
指数基期	2010-06-30
指数基点	1000
计算价格	收盘价
加权方式	
指数简介	 为了反映中国资本市场上经营业务具有低碳排放特征,或以提供
选样空间	同时满足下述条件: 1. 在深圳、上海证券交易所上市的非ST、*ST的A股; 2. 有一定上市交易日期(一般为六个月,流通市值 排名在样本数10%范围内的不受此限制); 3. 公司最近一年无 重大违规、财务报告无重大问题; 4. 公司最近一年经营无异常 无重大亏损; 5. 巨潮南方报业低碳50指数上市公司评价体系 中得分40分及以上的公司,或者上一年度具有低碳特征的业务收入占主营收入40%以上的公司,或者上一年度具有低碳特征的业务收入超过20亿元人民币的公司。



中证指数有限公司ESG评价方法 (v1) 2020年12月

C-ESG立法和投资现状 C-ESG Legislation and Investment Status

- 1. 以证监会为核心的监管机构出台了一系列关于ESG管理和信息披露的政策,
- 2. 但整体强制性不足,可操作性和落地性不强,还未能起到直接的牵引和监管作用;
- 3. 国内投资者仍以追求财务回报为主,虽然存在使用非财务因素考量投资标的,以规避长期持有风险的做法,但系统性、全面性的 ESG投资场景还未完全出现。





C-ESG实践及问题 C-ESG Practice and Challenges



- 1. 上市公司披露环境信息完整性、全面性普遍不高, 信息披露水平两极分化现象严重;
- 2. 环境信息披露内容和格式不统一, 披露形式不够规范;
- 3. 环境信息披露存在披露偏好,多以正面信息披露为主,负面信息披露不足;
- 4. 披露方式基本为上市公司自行披露,第三 方机构参与度不高。



C-ESG 中国趋势 C-ESG Trend in China

政策信号十分清晰

Policy signal is clear

中国责任投资者的增长

PRI signatories increasing

市场已为更严格的 ESG 披露做好准备

Market is prepared for ESG reporting





中证指数有限公司ESG评价方法 (v1) 2020年12月



国际合作

International Collaboration

- 中国工商银行首家签署支持TCFD 框架建议声明的中资金融机构
- 2017年,工商银行成为首家签署支持TCFD框架建议声明的中资金融机构,并在中国金融学会绿色金融专业委员会指导下,于2018年作为中方牵头机构参与中英金融机构环境信息披露试点项目,
- 对标TCFD框架,从治理、战略、风险管理、产品业务创新、绿色运营、前瞻研究、国际交流与合作等方面全方位展现了中国工商银行在2019年度内绿色金融建设实践的努力与成果,也为中国金融机构进一步开展自愿性环境信息披露工作提供实践样本。



绿色金融专题报告

中国工商银行股份有限公司

2019年



将C-ESG因素整合到投资决策中 ESG Integration a Part of Investment Decision Making



表 5:中国内地资本市场 ESG 整合的驱动力

股权投资		固定收益投资	
风险管理	74%	风险管理	65%
监管	37%	客户要求	43%
客户要求	26%	监管	43%
产生阿尔法收益	26%	信托责任	17%
信托责任	13%	产生阿尔法收益	13%

注:表中百分数表示认为该项是主要驱动因素的受访者比例。可多选。

表 6:中国内地资本市场 ESG 整合的障碍

股权投资		固定收益投资	
缺少可对比的历史数据	55%	缺少可对比的历史数据	65%
缺少公司文化	47%	对 ESG 理解有限	48%
对 ESG 理解有限	42%	缺少公司文化	43%
客户要求低	26%	ESG 研究有限	35%
没有证据证明可以带来投资收益	21%	没有证据证明可以带来投资收益	26%
注:表中百分数表示认为该项是主要障碍的	可多选。		

ESG 整合的驱动力和障碍 (PRI 2019)



ESG整合策略

Source: https://am.jpmorgan.com/se/en/asset-management/per/insights/market-insights/on-the-minds-of-investors/how-esg-affects-investment-process/

C-ESG在中国发展的经验洞察 Insights of the C-ESG Development in China



- 1. 企业若要对ESG事项进行有效的报告和管理,企业董事会层面的支持必不可少。
- 2. 必须摆脱对眼前收益的追逐,转而实施目标明确的战略,要考虑广泛利益相关者的<mark>利</mark> 益。
- 3. 与传统的企业社会责任(CSR)相比,C-ESG因素在业务战略制定与ESG风险及机会管理中的整合为投资者提供了更有意义的信息。
- 4. 成功的企业在开展ESG工作时,都通过实质性评估,重点关注那些和业务经营最相关<mark>的</mark> 问题。
- 5. ESG专业人才短缺的问题,业务部门和供应链也往往缺乏ESG知识。
- 6. 供应链面临越来越多的要求(尤其是来自全球品牌的要求),日益需要注重和披<mark>露可</mark> 持续发展实践。

下一步行动面临的挑战 Challenges for the Next Step



Improve Policy
Coordination 缺少政策合作

Different standards to be harmonized 标准有待统一

Awareness and capacity to be improved 意识和能力有待提升

Quantitative analysis in environmental risks and benefits to be strengthened 对环境风险和利好的定量分析有待加强

Innovation in green financial products to be expanded 绿色金融产品创新有待提高

Insufficient Environmental information disclosure in the financial market 金融市场环境信息披露不足



气候风险披露的七个原则 Seven Principles for Effective C-ESG

- 1. Provide relevant information(陈明相关信息)
- 2. Be specific and comprehensive (明确完整)
- 3. Be clear, balanced, and understandable (清晰, 平衡, 容易理解)
- 4. Be consistent over time (长期保持一致)
- 5. Be competitive amongst other companies within the sector, industry, or portfolio(行业领域可比较)
- 6. Be reliable, verifiable, and objective; and (可靠、可核查、客观)
- 7. Provide information in a timely manner(及时披露)





C-ESG 系统示意图及动态 C-ESG as ISEET Systems Picture



制度系统的完善 Institutional improvement

社会认知的提高 Social awareness

经济系统的发展 Economic development

地球环境的维持和恢复 Earth system retain and recovery

技术体系的提高和创新 Technological system innovation Institutional, law, regulators

International: ESG, TCFD,ISO National: MEE, CSRC, DRC

Social

Transparency, Social Welfare, Public Consultation and Monitoring C-ESG
ISEET
Systems

Technology

Standards, Guidance Methodology, Data, Monitoring, Rating Services

Economic

Green Finance
Green Development
Low carbon development

Earth

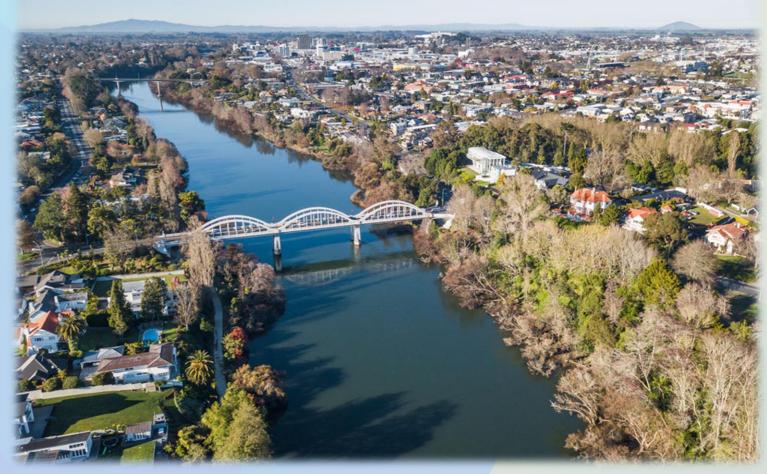
CC Mitigation Adaptation Environment Protection Disaster Risk Reduction

ISEET 五个子系统的有效动态发展演化
ISEET five sub-systems effective dynamics and evolutions



谢谢! Thank you

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Hamilton won the most beautiful large city (New Zealand) award in 2020