



Cutting-Edge ESG Data | Advancing Sustainability

About YoujiVest

Founding

Founded in 2017 with four offices in Hong Kong, Beijing, Shanghai, and New York to support responsible investment and climate solutions in China

Team

Core team consisted of engineers and finance practitioners from Chinese Academy of Sciences, Tsinghua Univ., Fudan Univ., UC Berkeley with decades of ESG product experience serving BlackRock, State Street, Nomura, Allianz and more

Expertise

Combining AI and deep learning techniques to build ESG Ratings, Carbon/Environmental Metrics, and Climate Models native to Greater China

Solutions

Methodologies and data products co-developed with Cross-strait Tsinghua Research Institute to address China's most pressing sustainability issues for investors, corporates and state agencies

Signatory of:



Signatory to United Nations Principles for Responsible Investment (PRI)



Declaration to support Task Force on Climate-Related Financial Disclosures



Our Mission



We believe companies' ESG behaviors not only impact their own performance, but also contribute to the well-being of the economy and the overall sustainability of society.

We are founded to provide the most trusted, bias-free, and innovative data solutions tailored to China's ESG and climate applications for investors, corporates, and policy makers.



Partnership with Leading ESG solution providers

Strategic partnerships established with YoujiVest to provide a full suite of ESG and climate carbon solutions including data, fund product design, investment framework construction and more!



A series of co-branded China Carbon-focused and ESG indices will be launching soon



YoujiVest CRES P

01

China ESG Risk Scores (CERS)

- Quantify overall ESG and 25 sub-issue risks through “sentiment” and “event” analysis
- Outside-in, negative scoring methodology to minimize “greenwashing” risks
- Over 10K+ data sources, including mainstream news, annual/CSR reports, NGOs, government agencies, social media and more
- Real-time monitor and updates leveraging NLP technologies
- Controversial Products (CPBI)
- ESG customised data point

02

China Environmental Pollutant Discharge (CEPD)

- Quantify 600+ discharged pollutants
- Data sourced directly from municipal and provincial sources
- A unique, uncorrelated source of “Environmental” alpha
- Urban city air pollution level real-time monitor, updated hourly

03

China Carbon Emission Metrics (CCEM)

- Compile, normalize and quantify carbon emissions, carbon intensity and footprints
- Data sourced from public, primary sources encompassing Scope 1, 2, 3 GHG emissions
- Carbon emissions estimated for undisclosed companies based on proprietary models
- Aligned with TCFD and ideally suited for portfolio climate risk analysis, reduction and reporting

04

Climate Risk Model Solutions (YoujiCRMS)

- YoujiVest unique scientific-based climate risk model
- Extensive collection of global and local climate data
- Combining with the company's financial indicators to quantify risks
- Covering all RCP-SSP scenario analysis pathways
- Meet the TCFD and various regulatory needs of listed companies and investors
- Quantitative analysis of physical risk and transition risk to formulate corporates’ medium and long-term development goals

China ESG Risk Scores (CERS)

ESG Risk Scores calculation are based on deploying NLP/ML techniques to over 10000+ sources of mainstream news, annual reports, NGO reports, CSR, social media, regulatory disclosures, penalties announcement, etc.

Documents are parsed, processed, and analyzed to detect ESG relevancy; then decomposed and flagged to various ESG sub-issues and topics for further scoring. Our focus is on the “negative” of events and sentiments to optimize risk signals and minimize “greenwashing.”

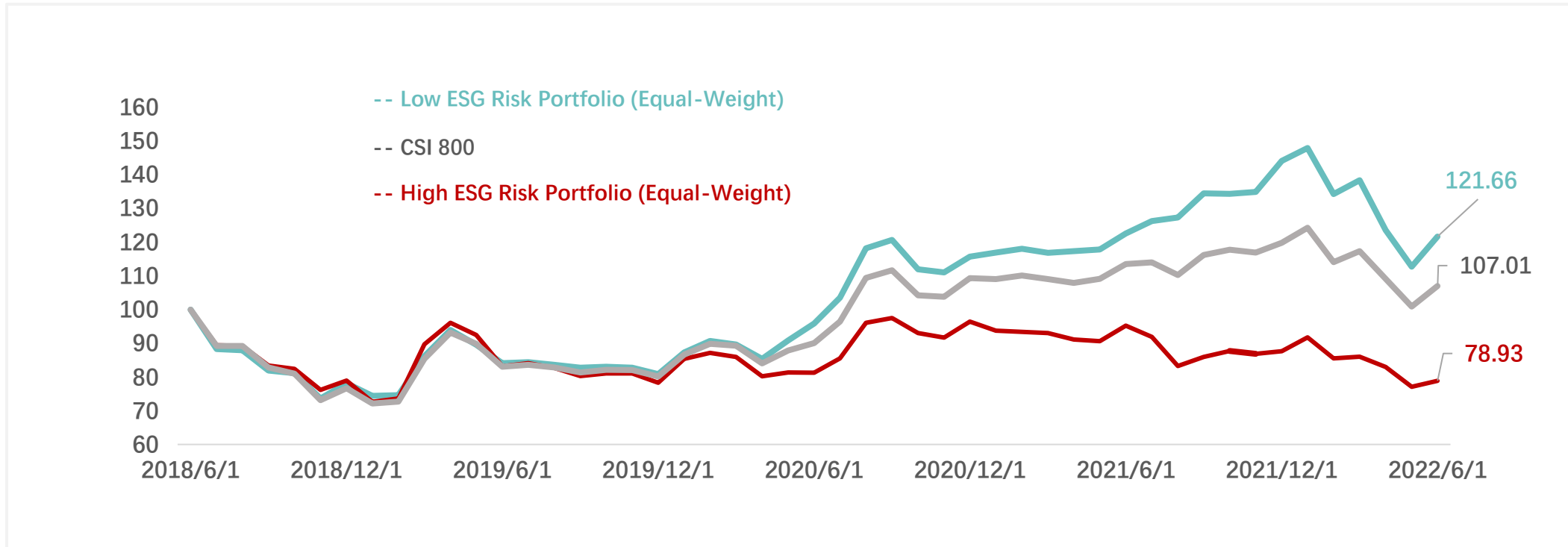
Advantage

- Unmatched comprehensive China coverage; granular ratings scale at 9 risk categories
- Data focused on real-world investment applications, with close to real-time update
- Able to flag “most risky” stocks before major blow up
- Objective and quantitative metrics ideally suited for quantitative evaluation on any green finance projects

Coverage

- All China A-shares and 95% market cap coverage for HK securities and ADRs
- 600K+ private companies, bond issuing entities
- Updated weekly and monthly
- History from 2015 (raw data from 2012)

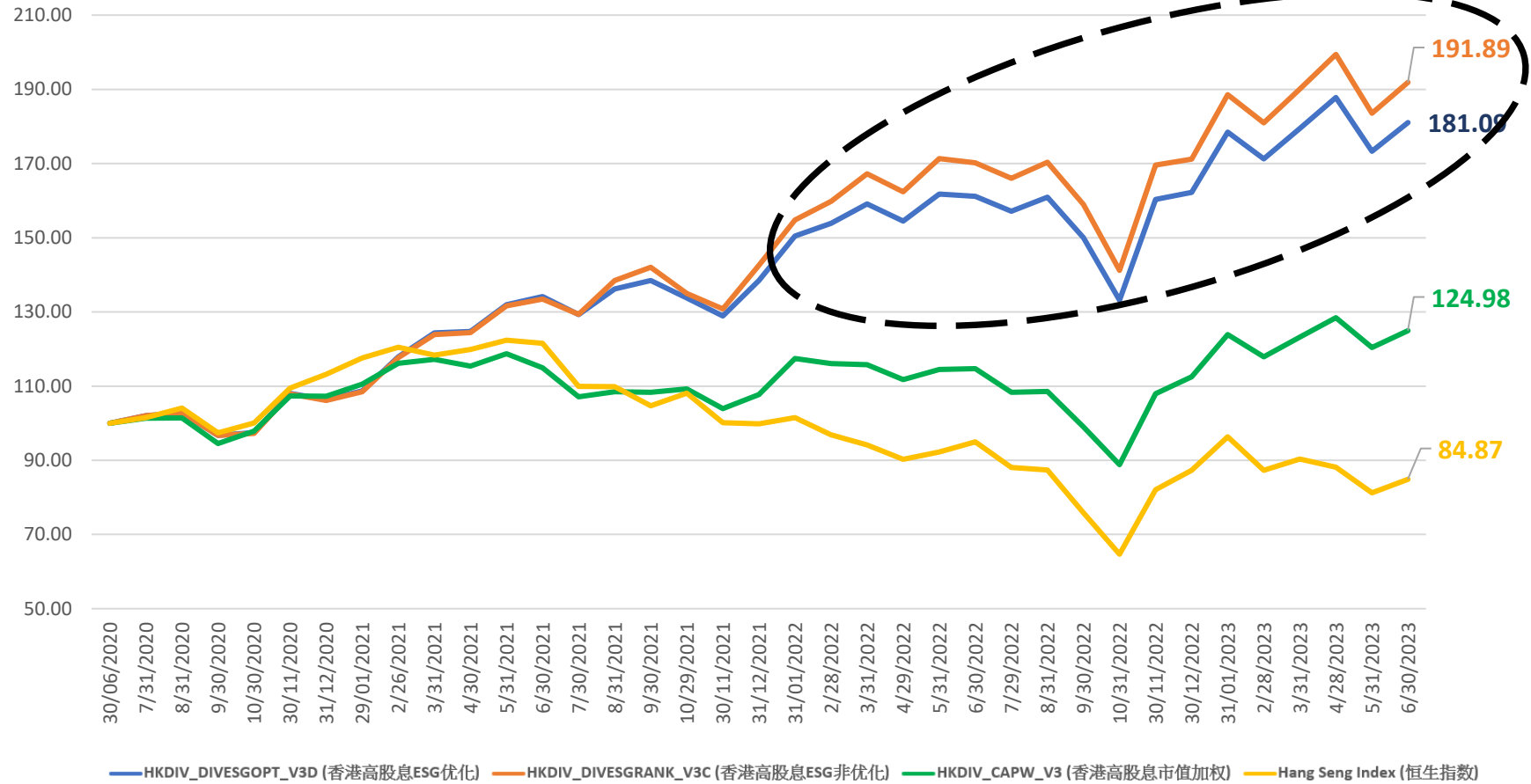
YoujiVest CERS Portfolios vs. CSI 800 (June 2018-June 2022)



	Low ESG Risk Portfolio	High ESG Risk Portfolio	CSI 800
Total Returns	21.66%	-21.07%	7.01%
Annual Returns	5.02%	-5.74%	1.71%
Annual Volatility	20.88%	20.56%	20.06%
Max. Drawdown	-26.32%	-27.36%	-27.84%
Sharpe Ratio	0.11	-0.42	-0.05

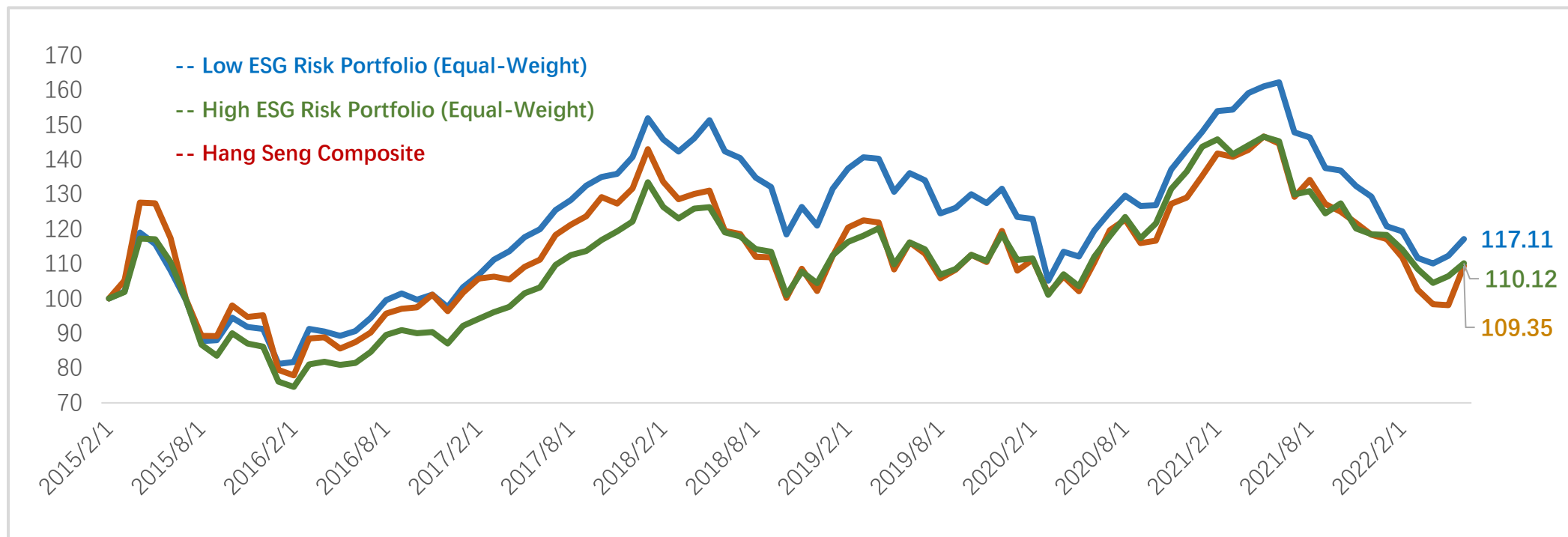
High Dividend Yield with ESG score enhanced

Hong Kong High Dividend Yield with ESG Enhance – Three year comparison



YoujiVest CERS Portfolios vs Hang Seng (Feb 2015- Aug 2022)

(Market Cap USD\$300 Million or greater)



	Low ESG Risk Portfolio	High ESG Risk Portfolio	Hang Seng Composite
Total Returns	17.11%	9.35%	10.12%
Annual Returns	2.17%	1.23%	1.32%
Annual Volatility	18.20%	22.15%	18.03%
Max. Drawdown	-32.15%	-38.98%	-36.42%
Sharpe Ratio	0.04	-0.01	-0.01

China Environmental Pollutant Discharge (CEPD)

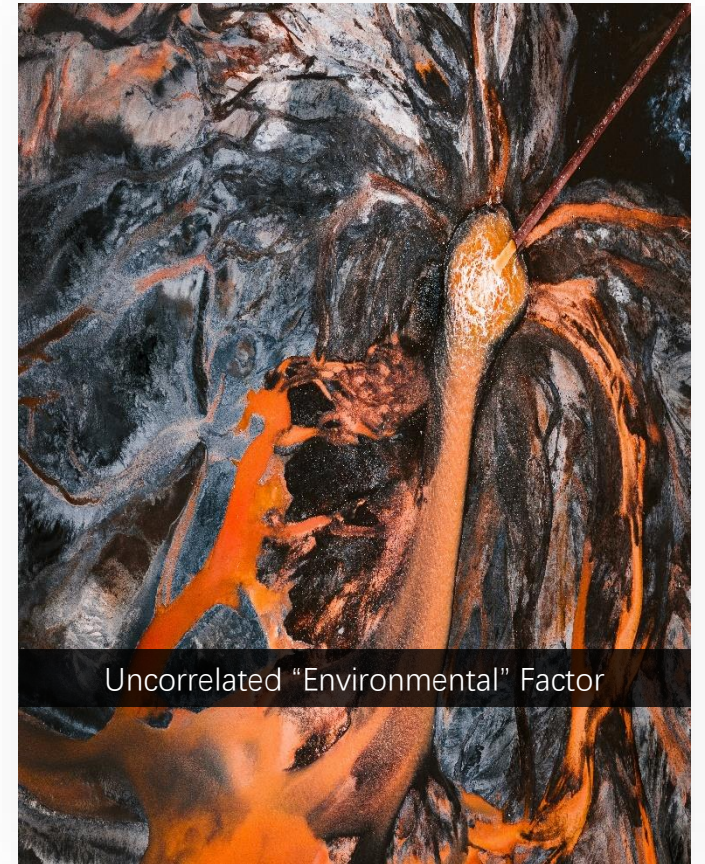
CEPD provides real-time, comprehensive waste discharge data for enterprises operating in all major China municipalities and provinces, and includes 500 +types of pollutants such as wastewater and various gas and solid particulates.

Advantages

- Data originates from real-time monitoring sensors at the provincial and municipal levels, and AI-enabled process allows for automated data acquisition, quality assurance and frequent update
- A differentiated, non-carbon related “Environmental” factor able to detect short to mid-term production activities ahead of wide public awareness – fertile ground for alpha discovery
- Cities’ real-time air pollution profiles that are highly correlated to company production capacity

Coverage

- 2600+ China publicly listed company covered; sourced and aggregated from all provinces
- Granular discharge data available for over 400,000 unlisted, private companies
- Data collected daily, sanitized/updated monthly; urban pollution levels updated hourly
- Data history since 2014



CEPD Case Study: 002756.CN

永兴材料 002756

Case Study: Yichun City reports that Yongxing materials are suspected of evading supervision and discharge of pollutants

ticker	parent_con	pollution_company	monitor_date	monitor_pl	monitor_pr	new_monit	new_unit	standard_limit	project_cla	release_tir	backtest_date	result_pct	chg
002756.SZ	永兴特种	永兴特种材料科技股	2022-01-19	00:00:00.00	00:00:00.00	00:00:00.00	氨氮	11.6	无量纲	15	有机物	2022-02-21 08:23:05.000	0.0710988
002756.SZ	永兴特种	永兴特种材料科技股	2022-01-23	00:00:00.00	00:00:00.00	00:00:00.00	废水总排悬浮物	13	无量纲	100	烟尘	2022-03-14 10:19:03.000	-0.4090909
002756.SZ	永兴特种	永兴特种材料科技股	2022-01-30	00:00:00.00	00:00:00.00	00:00:00.00	废水总排悬浮物	34	无量纲	100	烟尘	2022-03-14 10:20:08.000	1.6153846
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-01	00:00:00.00	00:00:00.00	00:00:00.00	生活锅炉氨氧化物	26	无量纲	30	无机盐	2022-02-01 00:00:00.000	-0.25714287
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-02	00:00:00.00	00:00:00.00	00:00:00.00	废水总排砷	0.003	无量纲	0.5	其他class	2022-03-14 10:24:44.000	-0.94
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-02	00:00:00.00	00:00:00.00	00:00:00.00	废水总排镍	0.936	无量纲	1	金属	2022-03-14 10:24:45.000	3.0695653
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-03	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	3.37	无量纲	15	有机物	2022-02-21 08:28:14.000	-0.7094827
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-04	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	3	无量纲	15	有机物	2022-02-21 08:28:49.000	-0.109792285
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-09	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	11.2	无量纲	35	无机盐	2022-03-14 10:26:21.000	-0.1764706
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-11	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	8.19	无量纲	15	有机物	2022-02-21 08:31:46.000	1.73
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-16	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	12.2	无量纲	35	无机盐	2022-03-14 10:28:26.000	0.08928572
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-16	00:00:00.00	00:00:00.00	00:00:00.00	废水总排石油	1.74	无量纲	10	有机物	2022-03-14 10:28:26.000	6.5652175
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-17	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	7.63	无量纲	15	有机物	2022-02-21 08:33:19.000	-0.06837607
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-23	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	8.19	无量纲	15	有机物	2022-02-26 08:27:01.000	0.07339449
002756.SZ	永兴特种	永兴特种材料科技股	2022-02-23	00:00:00.00	00:00:00.00	00:00:00.00	废水总排石油	1	无量纲	10	有机物	2022-03-14 10:29:09.000	-0.42528737
002756.SZ	永兴特种	永兴特种材料科技股	2022-03-01	00:00:00.00	00:00:00.00	00:00:00.00	生活锅炉氨氧化物	27	无量纲	30	无机盐	2022-03-01 00:00:00.000	0.03846154
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-02	00:00:00.00	00:00:00.00	00:00:00.00	焙烧尾气硫酸雾	36.7	无量纲	45	无机盐	2022-07-14 11:01:46.000	13.115385
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-02	00:00:00.00	00:00:00.00	00:00:00.00	锅炉房颗粒物	4.7	无量纲	20	烟尘	2022-07-14 10:49:01.000	-0.92357725
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-02	00:00:00.00	00:00:00.00	00:00:00.00	1#破碎机颗粒物	45.2	无量纲	120	烟尘	2022-07-14 11:01:46.000	8.617022
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-03	00:00:00.00	00:00:00.00	00:00:00.00	废水总排动植物油	1.67	无量纲	100	有机物	2022-07-14 09:35:17.000	1.9298246
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-03	00:00:00.00	00:00:00.00	00:00:00.00	废水总排悬浮物	17	无量纲	300	烟尘	2022-07-14 09:35:17.000	-0.5
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-03	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	10.9	无量纲	70	无机盐	2022-07-14 09:35:17.000	-0.10655738
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-03	00:00:00.00	00:00:00.00	00:00:00.00	废水总排砷	0.718	无量纲	8	无机盐	2022-07-14 09:35:17.000	-0.37565216
002756.SZ	永兴特种	永兴特种材料科技股	2022-03-05	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	8.3	无量纲	15	有机物	2022-03-22 08:24:58.000	0.013431014
002756.SZ	永兴特种	永兴特种材料科技股	2022-03-09	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	11.48	无量纲	15	有机物	2022-03-22 08:26:27.000	0.38313252
002756.SZ	永兴特种	永兴特种材料科技股	2022-03-10	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	11	无量纲	15	有机物	2022-03-22 08:26:43.000	-0.041811846
002756.SZ	永兴特种	永兴特种材料科技股	2022-03-11	00:00:00.00	00:00:00.00	00:00:00.00	废水总排氨氮	11.54	无量纲	15	有机物	2022-03-22 08:27:00.000	0.04909091
002756.SZ	永兴特种	江西永兴特钢新能源	2022-03-11	00:00:00.00	00:00:00.00	00:00:00.00	碳酸锂车间颗粒物	20	无量纲	120	烟尘	2022-07-14 11:01:47.000	-0.5575221

Analysis:

Yongxing Materials announced on October 15, 2022 that 20,000 tons of lithium carbonate has reached production capacity. The CEPD emission permit shows that the company obtained a new emission permit on September 30, 2022, and needs to reapply for the expansion of lithium carbonate production. Organic data CEPD pollution discharge details show that Jiangxi Yongxing Special Steel New Energy Technology Co., Ltd. continued to discharge pollution from March to August 2022, that is, **Before obtaining a new license, the lithium carbonate production line was already discharging.**

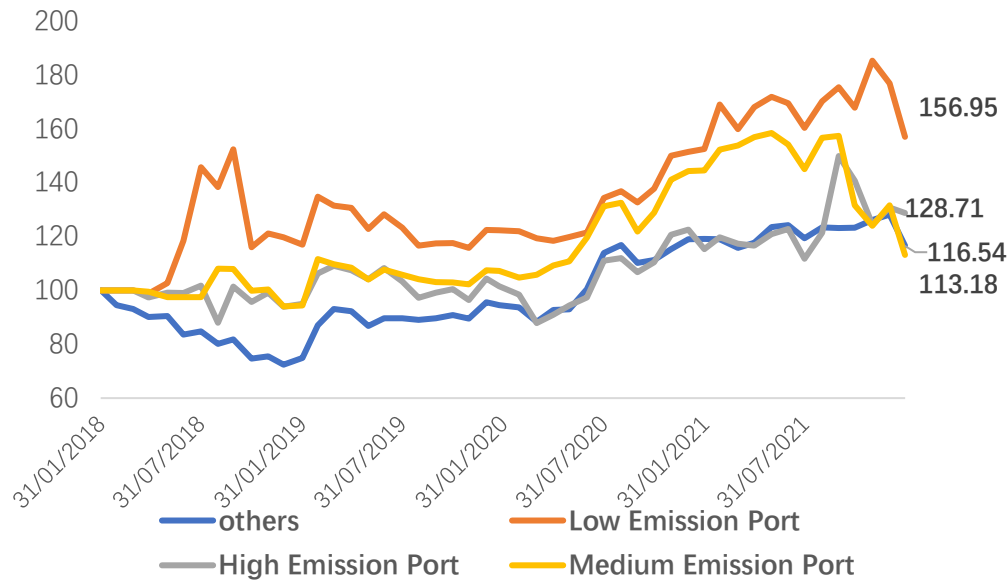
Conclusion: Consistent with the reasons for regulatory penalties

company_name	industry	issuer	permit_code	permit_version	business_type	effective_date	issue_date
江西永兴特钢新能源科技有限公司	无机盐制造	宜春市生态环境局	91360924MA368A877D00	1	申领	20/06/2020	22/06/2020
江西永兴特钢新能源科技有限公司	无机盐制造	宜春市生态环境局	91360924MA368A877D00	2	重新申请	30/09/2022	30/09/2022

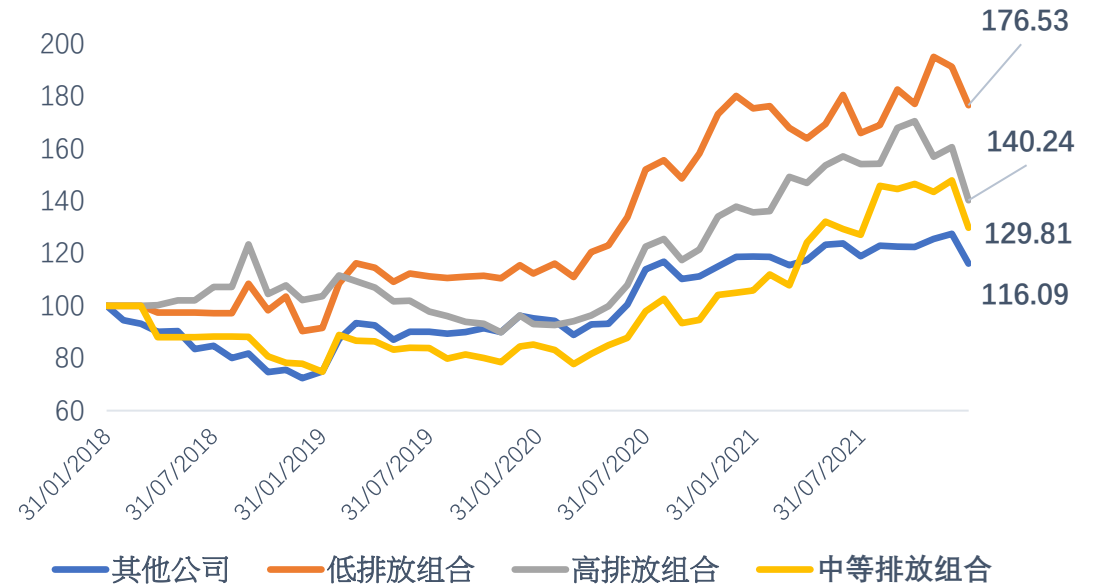
China Environmental Pollutant Discharge (CEPD)

CEPD can be seen as 'E' fundamental data to contribute excess return

Air pollutant discharge backtesting



Solid particulates group backtesting

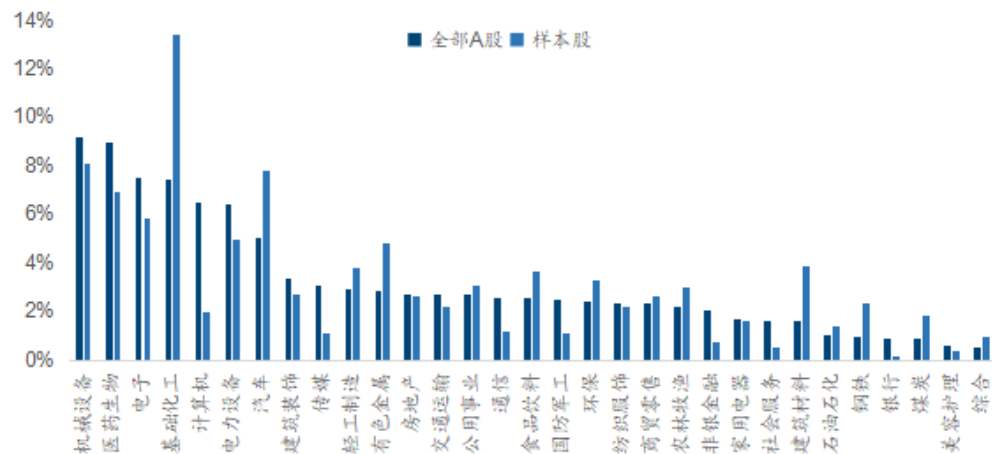


CEPD Quant strategy



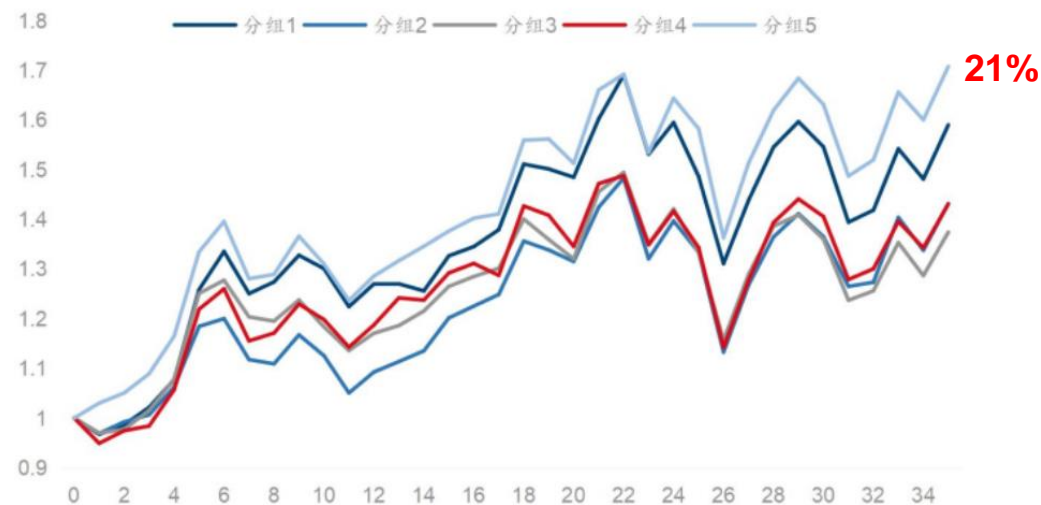
Portfolio NAV change based on Pollutant Discharge % change (02/2020-12/2022)

Sample coverage across industries



Top 5 industries coverage: basic chemicals, machinery and equipment, automobiles, medicine and biology, and electronics: 9.15%、8.97%、7.50%、7.42%、6.50% respectively.

Market cap range: 3.5bn-17bn rmb (>50% in sample)



5 groups from low to high based on the MoM emission growth, equally weighted average

CEPD Quant strategy



Portfolio style exposure and excess return

		分组 1	分组 2	分组 3	分组 4	分组 5
市场因子	估计值	1.052	1.016	0.99	1.088	0.978
	t 统计量	20.68	26.15	20.23	21.01	14.28
规模因子	估计值	0.515	0.606	0.592	0.582	0.62
	t 统计量	10.08	15.53	12.06	11.2	9.02
价值因子	估计值	0.233	0.234	0.137	0.23	0.238
	t 统计量	4.5	5.93	2.76	4.37	3.42
超额收益	估计值	7.75%	3.90%	2.26%	3.66%	10.30%
	t 统计量	2.59	1.71	0.79	1.2	2.56

Three-factor model: market factor, size factor and value factor.

The factor return rate is constructed using CNI series index.

Market factor: CNI A share index

Size factor: the return difference of CNI2000 and CNI1000

Value factor: the return difference of the CNI Value index and CNI Growth index.

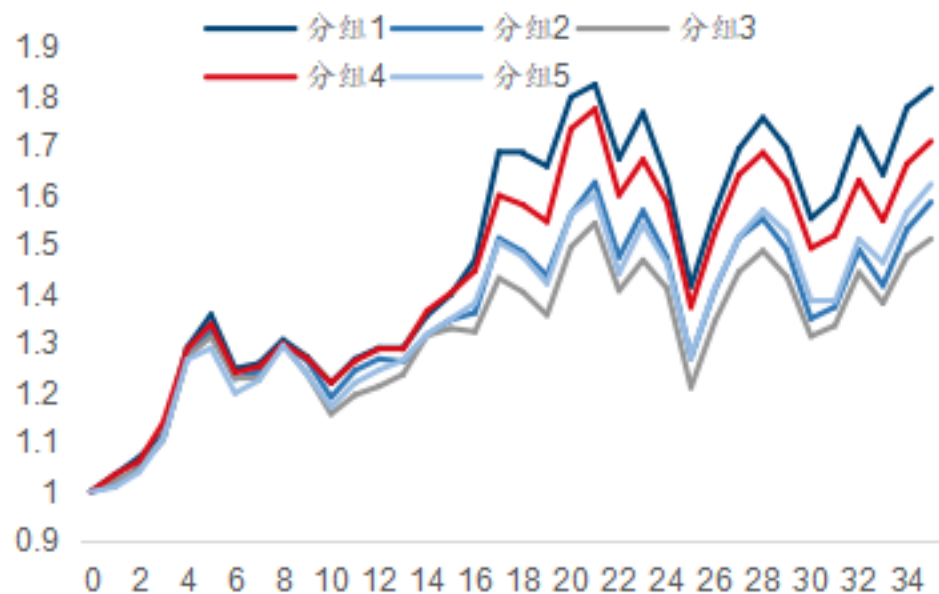
In the 35-month period from March 2020 to January 2023, the annualized returns of the market factor, size factor and value factor were **8.19%**, **5.98%** and **-4.92%** respectively. After the risk-return adjustment of the factor model, **the excess returns of groups 1-5 were 7.75%, 3.90%, 2.26%, 3.66%, and 10.30% respectively.**

The month-on-month growth in excess returns and emissions of each investment portfolio still showed a U-shaped distribution. From the perspective of risk exposure, the size factor exposure and value factor exposure of each investment portfolio are very significant, that is, each investment portfolio prefers small-cap stocks and value stocks.

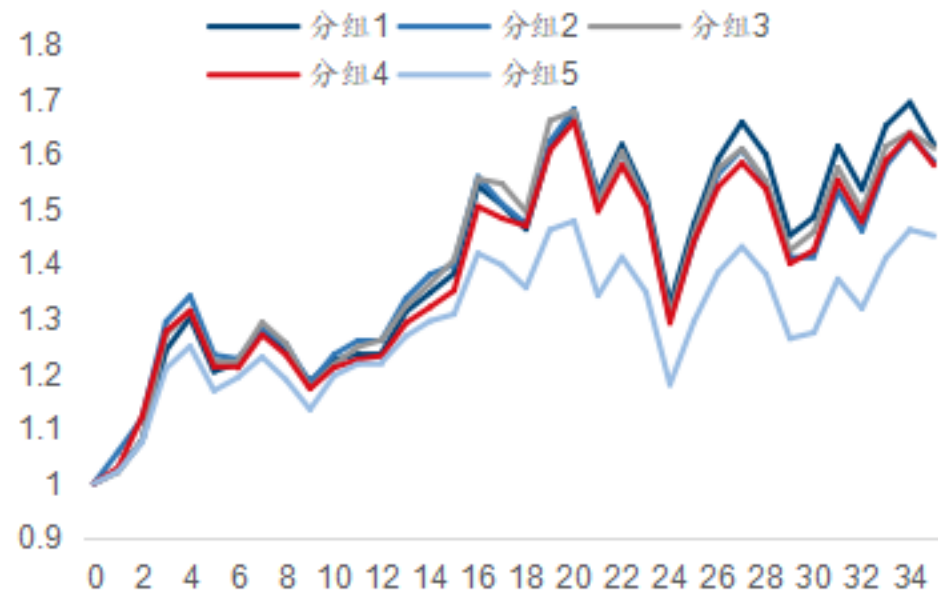
CEPD Quant strategy



Portfolio NAV change based on Pollutant Discharge % change (02/2020-12/2022)



5 groups from low to high based on the MoM (2months) emission growth, equally weighted average



5 groups from low to high based on the MoM (3months) emission growth, equally weighted average

ROUND TABLE Friday, June 9, 2023

Measures urged to mitigate ESG 'greenwashing' risks

Raising public awareness, enhancing corporate transparency and promoting efficient regulation necessary for protecting the sustainable-investment environment

Panelists: Mr. Paul Kau, Mr. Wang, Mr. Li, Mr. Chen, Mr. Zhang, Mr. Liu, Mr. Sun, Mr. Zhou, Mr. Wu, Mr. Zhao, Mr. Sun, Mr. Zhou, Mr. Wu, Mr. Zhao.

Key points: ESG 'greenwashing' risks are increasing as companies focus on short-term gains. Raising public awareness and enhancing corporate transparency are crucial for protecting the sustainable-investment environment. Efficient regulation is also necessary.

前瞻 · 专业 · 可持续

所以对于我们国家

THE HANG SENG UNIVERSITY OF HONG KONG

深圳市绿色金融协会 | 绿色及可持续金融线上分享会NO.47

ESG投资中的难点解读

内容摘要

- ESG投资面临的挑战
- 数据在ESG投资策略中实际应用
- TCFD物理风险情景分析解读

「直播时间」7月21日

胡若茵

首席数据官/联合创始人/总经理

News 公司 | 07

2023年6月25日 星期二 第2282期 新浪财经 上海证券报

国有上市公司领衔 864家A股公司晒出2022年ESG“成绩单”

【记者 曹博】随着A股上市公司ESG信息披露的常态化，越来越多的企业开始主动披露ESG信息。据不完全统计，2022年共有864家A股上市公司披露了ESG报告，其中国有上市公司占比最高。

从披露内容来看，国有上市公司在ESG信息披露方面表现较为突出，披露内容较为全面，涵盖了环境、社会、治理等多个方面。而民营企业则在环境和社会责任方面披露较多，治理方面的披露相对较少。

此外，ESG评级机构也对A股上市公司进行了评级。根据MSCI ESG评级，2022年A股上市公司中，AAA评级占比为12.88%，AA评级占比为21.88%，A评级占比为31.11%，BBB评级占比为24.13%，BBB-评级占比为8.00%。

总体来看，A股上市公司ESG信息披露水平有所提高，但仍存在披露内容不全面、数据不透明等问题。未来，企业应进一步提高ESG信息披露的透明度和可信度，以增强投资者的信心。

AI 赋能的高频 ESG 评级：2023 年以来关键因素在公司治理

兴业证券

2023年1月得到4月份，全A ESG AAA评级占比下降10%。

2023年1月得到4月份，全A ESG AAA评级占比下降10%左右。同时AA、A和BBB评级总计上升8%，这显示出市场ESG评级出现显著的分化。

市场整体ESG变化：综合ESG AAA评级的上市公司占比下降10%，2023年1月得到4月份，全A ESG AAA评级占比下降10%左右。同时AA、A和BBB评级总计上升8%，这显示出市场ESG评级出现显著的分化。

大分行业和行业的变化：G分行业，多数行业评级下降幅度大，2023年以来获得A级市场ESG四个大分AAA评级的占比出现一定幅度下降。其中G分行业的AAA评级上市公司占比下降幅度最大。从申万一级行业维度来看，商贸零售、建筑装饰、石油石化等行业AAA评级上市公司占比下降幅度最大。煤炭和通信等行业AAA评级上市公司占比下降幅度较大。

小分行业评级变化：G8违法违规的AAA占比下降12.88%，从细分评级来看，G8违法违规这一小分行业出现明显下降，下降12.88%。从YoujiVest数据库来看，近期大量的负面新闻导致AI评级的违法违规小分行业出现较大比例增加。这提示我们要关注这一因素可能对市场风险偏好和公司治理的影响。

ESG 提早分析基础 (方法论)

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主办单位：PHS 学术支持：深圳市资产管理学会

对话环节

胡若茵女士 有机数科技总经理及联合创始人

刘柏青 副教授 北京大学汇丰商学院金融学特聘副教授 《北大金融评论》副总编辑

北大汇丰金融茶座

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签约仪式

Mr. Paul Kau

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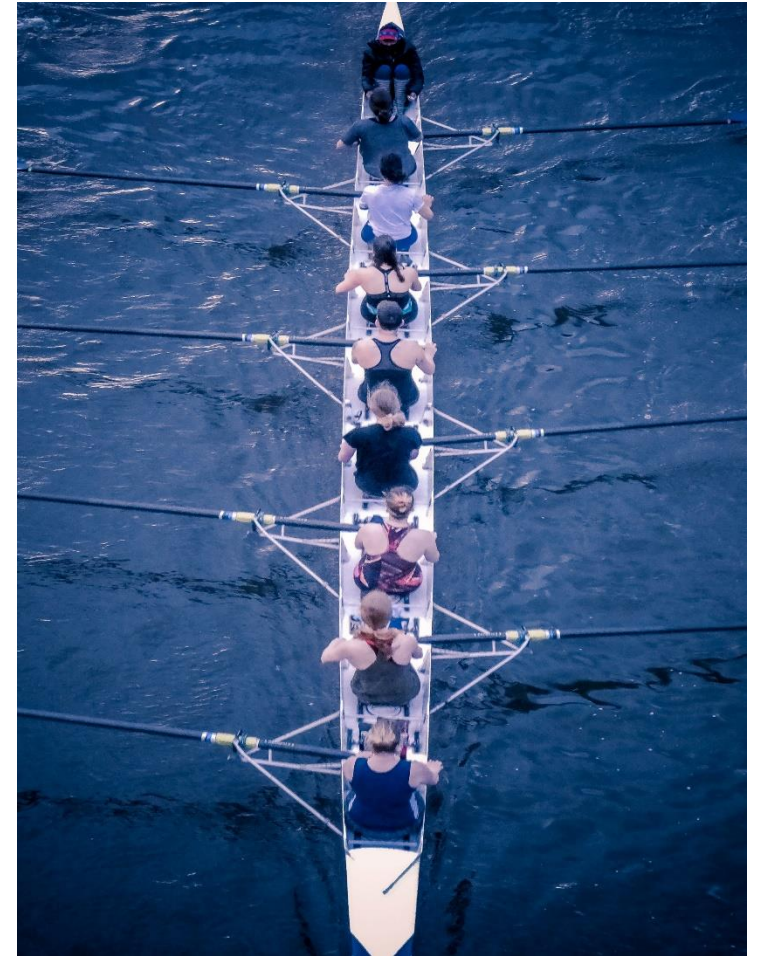
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风险提示：投资环境超预期变化，商业发展超预期波动，监管超预期。

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