Stock price reactions to ESG news: the role of ESG ratings and disagreement

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Motivation

- Proper allocation of resources in an economy requires institutions that provide information intermediation, like analyst forecasts, credit ratings, and ESG ratings.
- Different raters give the same company very different ratings, raising questions about the ratings' usefulness.
- This study investigates the predictive ability of ESG ratings(disagreement) and whether these ratings are reflected in ESG news and stock reactions.

Research Question

- Do ESG ratings predict future ESG news, and how does rater disagreement affect this predictive ability?
- How consensus rating and disagreement affect stock reactions around the ESG news.
- The predictive power of ratings on future stock returns

Contribution

- Literature on examines the properties of ESG ratings.
    - Prior: Greater ESG disclosure exacerbates disagreement across ESG ratings(Christensen et al., 2022)
    - Extend: ESG ratings can be useful in predicting future news.
- Literature on examines market reactions to ESG event, news, or ratings disagreement.
    - Prior: Negative market reaction to both positive and negative ESG news(Krueger, 2015)
    - Extend: market reacts positively (negatively) to positive (negative) news.
- Literature on examines why investors react to ESG news.
    - Prior: investors react because of financial or nonpecuniary reasons
    - Extend: their reactions are motivated by a financial rather than a nonpecuniary motive.

Hypotheses

- *H1: There is a positive relationship between ESG ratings and more positive future ESG news.*
  - ESG ratings reflect a management's efforts to limit negative ESG events and to promote positive ESG events.
- *H2: More positive ESG news will be associated with more positive stock price reactions to the news.*
  - Better ESG performance translates into value because of operating efficiencies, stronger brand and customer loyalty, and employee engagement.
- *H3: Different raters will exhibit differential predictive ability of future ESG news.*

Data and Sample

- TruValue Labs Pulse data that track ESG-related information every day across thousands of companies and classify that news as positive(above 50) or negative(below 50).
- ESG Ratings
    - MSCI ESG Ratings range from 0 (most negative) to 10 (most positive).
    - Sustainalytics and Thomson Reuters Asset 4. These ratings range from 0 (most negative) to 100 (most positive)

Panel A Summary Statistics

	N	Mean	St. Dev	p25	Median	p75
Industry Adjusted Return −1, +1	31,854	0.00	0.02	−0.01	0.00	0.01
ESG News	31,854	56.26	11.54	48.92	56.53	63.66
MSCI ESG Rating	31,854	48.47	12.68	39.00	47.00	56.70
Sustainalytics ESG Rating	30,697	62.22	8.88	56.00	63.00	68.00
Thomson Reuters ESG Rating	23,220	70.70	16.36	61.91	74.56	82.84
Average ESG Rating	31,854	58.76	10.33	51.28	58.75	65.50
Disagreement	31,854	10.28	5.02	6.50	10.41	13.54

Prediction of news based on consensus ESG rating

- ESG ratings predict future ESG news.
- this relationship is negatively moderated by the disagreement between raters

	ESG News			
	(1) All News	(2)	(3) Material News	(4)
Normalized Average ESG Rating t-1	2.9083***	3.2671***	2.4549***	3.0089***
	[7.445]	[8.138]	[5.186]	[6.026]
High Disagreement		0.0955		0.7318
		[0.186]		[0.987]
Normalized Average ESG Rating t-1*High Disagreement		−0.8338**		−1.1574**
		[−2.005]		[−2.237]
Controls	Yes			
F.E	Industry & Date			
N	31,854	31,854	10,806	10,806
R-squared	0.316	0.317	0.453	0.455

Market reaction to ESG news conditional on the average ESG rating

- positive (negative) ESG news is associated with positive (negative) stock price reaction
- consensus ESG ratings negatively moderate the relationship between ESG news and stock price reaction

	(1) Base	(2) Base/Interact	(3) Hi Disagree Only	(4) Lo Disagree Only
Positive News	0.0054***	0.0075***	0.0042*	0.0086***
	[4.391]	[3.805]	[1.836]	[2.587]
Hi Avg ESG Rating$_{t-1}$		0.0017	0.0007	−0.0005
		[1.497]	[0.424]	[−0.198]
Positive News * Hi Avg ESG Rating$_{t-1}$	−0.0041**	−0.0004	−0.0042	−0.0202***
		[−2.005]	[−0.143]	[−1.195]
log(Market Cap)	−0.0007	−0.0006	−0.0004	−0.0007
	[−1.064]	[−0.903]	[−0.367]	[−0.647]

Pricing of ESG ratings in the presence of disagreement

- different raters have differential ability in predicting future ESG news.
- Thomson ESG Rating has the weakest predictive ability

	ESG News			
	(1)	*(2)*	*(3)*	*(4)*
MSCI ESG Rating$_{t-1}$	0.2130***			0.1520***
	[8.192]			[4.161]
Sustainalytics ESG Rating $_{t-1}$		0.2736***		0.1339***
		[6.963]		[3.069]
Thomson ESG Rating $_{t-1}$			0.0819*	0.0177
			[1.780]	[0.485]

Long and Short Portfolios

- stock returns can be predicted using the most predictive ESG rating in the presence of high disagreement

Panel C. Predicting Future Stock Returns Using Disagreements in ESG Ratings

	Equal-Weighted	
	(1)	
	Long/Short	
Parameter	*Estimate*	*t*
Intercept	0.0035	2.46
Market	−0.1334	−3.13
SMB	0.0807	1.03
HML	−0.0942	−1.10
RMW	−0.3705	−3.03
CMA	−0.0423	−0.43
N	108	
Annualized Alpha	4.27%	

Ideas

- 本文中，只有有 ESG 新闻的企业才会被考虑其中。重新构建 ESG 新闻指标，计算企业 ESG（正负面）新闻占其总体新闻的比例。
- ESG 新闻包含了 ESG 评级机构披露的新闻，所以 ESG 评级和 ESG 新闻是否存在反向因果关系，用自然或者环境事件作为工具变量。