

# Resiliency of Environmental and Social Stocks: An Analysis of the Exogenous COVID-19 Market Crash

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Discussion by

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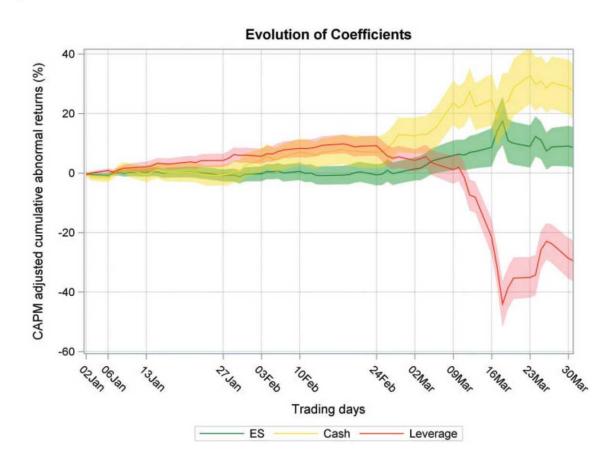
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## This paper: ESG as a "soft" resilience factor

Albuquerque, Koskonen, Yang, and Zhang (2020): Stocks with higher ES ratings had higher returns, lower return volatility, and higher operating profit margins during Q1 2020.



### **Discussion overview**

Overall: Timely paper on an important topic. Many dimensions covered. Congrats on the publication in RCFS!

This discussion:

- 1. Is the result really there?
- 2. What's the interpretation?
- 3. Who drove the ES premium (if it's there)?

# 1. Is the result really there? (1/2)

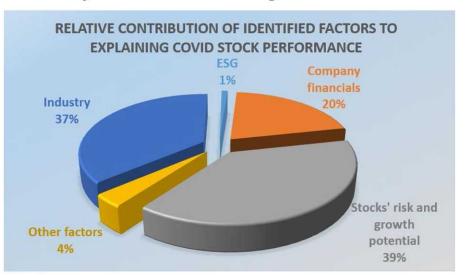
	(1) Dependent variable: Ret	(2) urn in Fever (1	(3) $(4)$ $(5)$ $(Feb24-Mar20)$
ES score (msci) Leverage Cash/Assets IO	0.133** (2.39) -0.216*** (-5.81) 0.227*** (4.96)	0.130** (2.34) -0.216*** (-5.83) 0.223*** (4.84) -0.082**	Analysis using Ramelli- Wagner (2020) setup and data
		(-2.01)	<ol> <li>ES loads significantly.</li> <li>(Also with Asset 4 data)</li> </ol>
Market beta	20.797*** (9.53)	20.907*** (9.59)	2) ES remains significant
$\log(\text{Market cap})$	1.144** (2.51)	1.196*** (2.66)	also controlling for
Profitability	$0.461^*$ $(1.77)$	0.472* (1.81)	institutional ownership a la Glossner, Matos,
Book-to-market	-0.033 (-0.02)	0.030 $(0.02)$	Ramelli, and Wagner
Constant	-41.572*** (-7.81)	-34.942*** (-5.44)	(2020), potentially important to use data
Observations R-squared	1,642 $0.377$	1,642 0.379	of Q42019, not only
Industry FE	Yes	Yes	2018

# 1. Is the result really there? (2/2)

Ding, Levine, Lin, and Xie (2020) find similar results with an international sample.

Garel and Petit-Romec (2020): Effect driven by the "E" dimension, not "S"

Demers, Hendrikse, Joos, and Lev (2020): With basic controls coeff(t-stat) in their spec of buy-and-hold-returns: 0.00708(2.04). With 27 controls: 0.00538(1.56). From this difference, they conclude: "...the significance of ES and ESG as a determinant of COVID-19 crisis period returns definitively vanishes. In other words, by avoiding a correlated omitted variables bias, we arrive at diametrically opposite conclusions regarding the role of ESG as a share price resilience factor during the COVID crisis." (Seems a bit strongly worded, given the evidence.) -- Probably more concerning: Additional R2 is low.



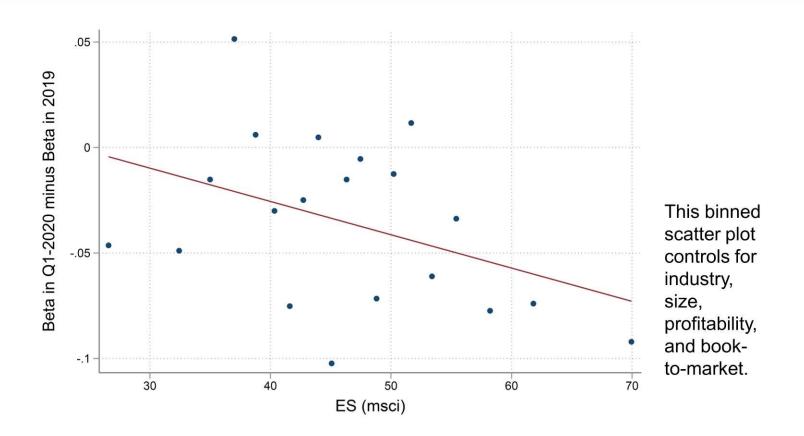
### 2. Interpretation (1/4)

Suggested channel: loyalty of consumers and investors. Story similar to Lins, Servaes, and Tamayo (2017) on the Global Financial Crisis.

Demers et al. (2020): High-ESG firms performed significantly less well when the overall market recovered. Seems consistent with the notion that ES helps in crisis times.

Intriguing alternative interpretation offered by Albuquerque, Koskonen, Yang, and Zhang (2020): "However, it is also possible that the better performance of CAPM-adjusted returns is due to a decline in betas during the first quarter for high ES firms. Declining betas of ES stocks may be due to expectations that firm cash flows become less risky than low-ES stocks after the crisis."

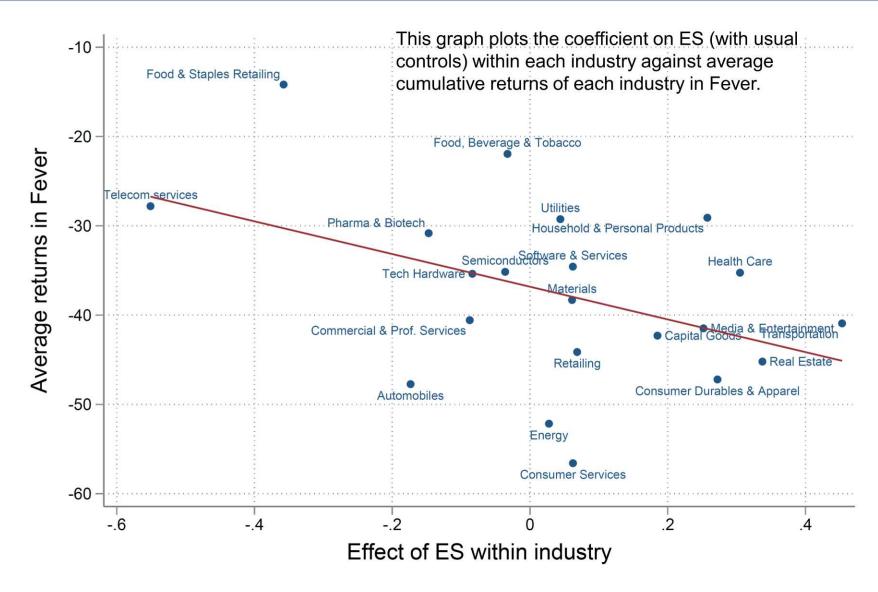
### 2. Interpretation (2/4)



High-ES firms saw a decrease in realized market beta in Q1-2020, which is kind of obvious in light of the identified ES premium on stock prices.

**Key question**: Is this due to realized (fat-tail) risks or permanent changes in expected risk? (cf. discussion in Tsai and Wachter (2015))

## 2. Interpretation (3/4)



# 2. Interpretation (4/4)

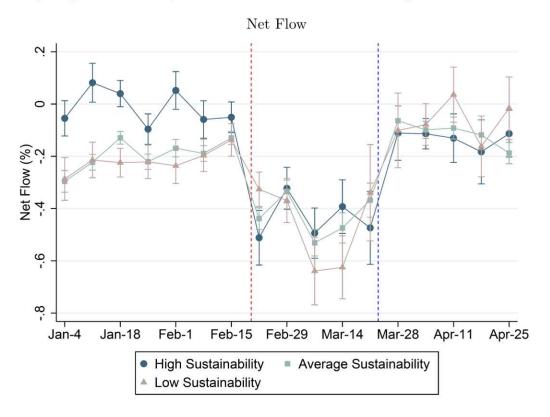
	(1)	(2)	(3)	(4)	(5)	—			
Dependent variable: Return in Fever (Feb24-Mar20)									
ES score (msci)	0.133**	0.130**	0.023	0.112**	0.074				
, in the second second	(2.39)	(2.34)	(0.34)	(2.49)	(1.63)				
Leverage	-0.216***	-0.216***	-0.220***	-0.136***	-0.135***				
	(-5.81)	(-5.83)	(-2.64)	(-5.52)	(-6.28)				
Cash/Assets	0.227***	0.223***	0.144***	0.256**	0.145***				
	(4.96)	(4.84)	(5.01)	(2.04)	(5.18)				
IO		-0.082**	-0.060**	-0.060**	-0.061**	If ES			
		(-2.01)	(-2.25)	(-2.25)	(255)	premium			
ES score (msci) $\times$ Leverage			0.002			due to a			
			(1.03)	0.000		shift in			
ES score (msci) $\times$ Cash/Assets				-0.002					
EC (i) y Book to monket				(-0.88)		expected			
ES score (msci) $\times$ Book-to-market					(0 10)	risk, we			
Market beta	20.797***	20.907***	-8.246***	-8.229***	0 220***	would			
Warket beta	(9.53)	(9.59)	(-6.43)	(-6.35)	(-7.64)	probably			
log(Market cap)	1.144**	1.196***	0.834***	0.842***	0.842***	see some			
8(	(2.51)	(2.66)	(2.92)	(2.92)	(2.96)	action here.			
Profitability	$0.461^{*}$	$0.472^{*}$	0.365**	0.361**	0.366***				
v	(1.77)	(1.81)	(2.25)	(2.22)	(3.61)				
Book-to-market	-0.033	0.030	0.380	0.397	-0.438				
	(-0.02)	(0.02)	(0.37)	(0.39)	(-0.22)				
Constant	-41.572***	-34.942***	-30.144***	-34.508***	-32.680***				
	(-7.81)	(-5.44)	(-6.50)	(-7.81)	(-8.51)				
Observations	1,642	1,642	1,642	1,642	1,642				
R-squared	0.377	0.379	0.317	0.317	0.317				
Industry FE	Yes	Yes	Yes	Yes	Yes				

## 3. Who drove the ES premium? (1/3)

#### Evidence from intermediated institutional and retail investors

Pastor and Vorsatz (2020): Funds with high sustainability ratings (i.e., more Morningstar globes) receive larger net flows during the COVID-19 crash.

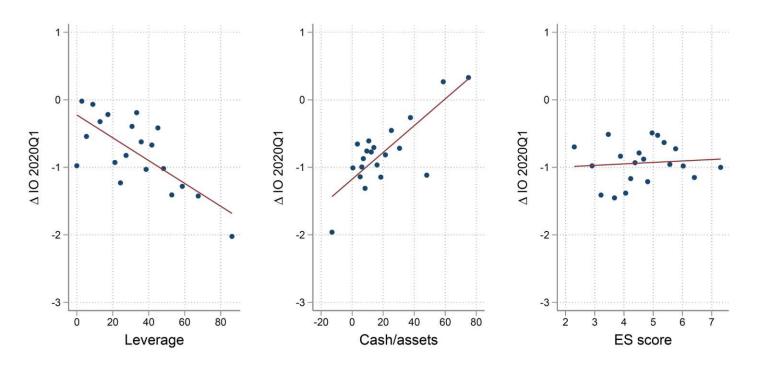
Döttling and Kim (2020): High-sustainability funds -- especially retail ones -- experienced a <u>sharper decline</u> in flows during the COVID-19 crash compared to other funds, wiping out the pre-COVID-19 trends (difference-in-differences).



### 3. Who drove the ES premium? (2/3)

### **Evidence from institutional portfolio changes**

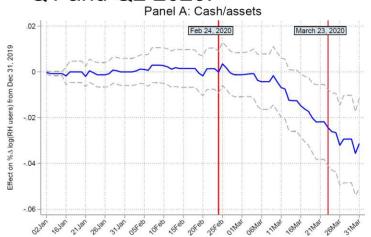
Glossner, Matos, Ramelli, and Wagner (2020): No evidence that institutional investors actively tilted their portfolios toward firms with better ES scores during Q1 and Q2 2020. Strong evidence that when a tail risk realizes, institutional investors express a preference for "hard" measures of firm resilience.

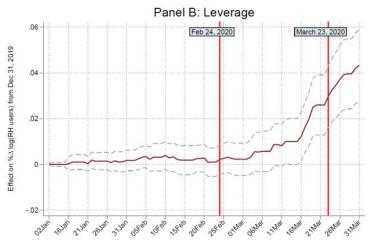


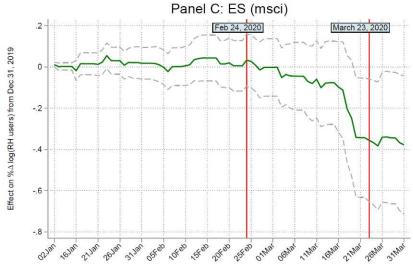
## 3. Who drove the ES premium? (3/3)

#### Evidence from retail investor interest

Glossner, Matos, Ramelli, and Wagner (2020): No evidence that retail investors (Robinhood) increased their interest towards firms with better ES scores during Q1 and Q2 2020.







### Conclusion

Congrats on the nice paper!

This discussion:

- 1. Is the result really there? Probably.
- 2. Interpretation? Opportunities for more research on clearer evidence on cash flows vs. discount rates.
- 3. Who drove the ES-premium? A puzzle. Will the real ES-during-COVID-investors please stand up?

# **Appendix**

### References on COVID-19

- Albuquerque, Rui, Yrjo Koskinen, Shuai Yang, and Chendi Zhang, 2020, Resiliency of environmental
  and social stocks: An analysis of the exogenous COVID-19 market crash, Review of Corporate Finance
  Studies Forthcoming.
- Demers, Elizabeth, Jurian Hendrikse, Philip Joos, and Baruch Lev, 2020, ESG didn't Immunize stocks against the Covid-19 market crash, Working Paper.
- Ding, Wenzhi, Ross Levine, Chen Lin, and Wensi Xie, 2020, Corporate immunity to the COVID-19 pandemic, Working Paper.
- Döttling, Robin, and Sehoon Kim, 2020, Sustainability preferences under stress: Evidence from mutual fund flows during COVID-19, Working Paper.
- Garel, Alexandre, and Arthur Petit-Romec, 2020, Investor rewards to environmental responsibility: Evidence from the COVID-19 crisis, Working Paper.
- Glossner, Simon, Pedro Matos, Stefano Ramelli, and Alexander F. Wagner, 2020, Where do
  institutional investors seek shelter when disaster strikes? Evidence from COVID-19, Working Paper.
- Li, Kai, Xing Liu, Feng Mai, and Tengfei Zhang, 2020, The role of corporate culture in bad times:
   Evidence from the COVID-19 pandemic, Working Paper.
- Lins, K. V., Servaes, H., and Tamayo, A., 2017, Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis, *The Journal of Finance*, 72(4), 1785-1824.
- Pastor, Lubos, and M. Blair Vorsatz, 2020, Mutual fund performance and flows during the COVID-19 crisis, Review of Asset Pricing Studies Forthcoming.
- Ramelli, Stefano and Alexander F. Wagner, 2020, Feverish Stock Price Reactions to COVID-19, Review of Corporate Finance Studies Forthcoming.
- Shan, Chenyu, and Dragon Yongjun Tang, 2020, The value of employee satisfaction in disastrous times: Evidence from Covid-19, Working Paper.

### Hard resilience factors

Ramelli and Wagner (2020): Stocks with higher cash-holdings and lower leverage did better during the "Fever" period. (Internationally oriented firms first did poorly, then had a comeback.)

