Discussion of: "Green or Brown? Choosing an Overpriced Stock to Short Sell" Weiming Zhang and Xintong Zhan

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Motivation and findings

• **Motivation:** Whether short sellers show varying preferences for (overpriced) firms with different levels of ESG performance?

• Main findings:

- Causal effect:
 - negative effect of ESG score on short sell among overpriced stocks
- Mechanism:
 - Synchronization risk
 - Short squeeze risk
 - ESG reputation risk
- Asset pricing implication
 - Insufficient short sell => more negative return in the future

Comment-1: Short-squeeze risk and DGSVI

- Short-squeeze risk: a temporary price increase on the stock being shorted
- DGSVI: change of Google Search Volume Index on ESG topic
- To validate that DGSVI can proxy for the short squeeze risk
- To include DGSVI in the regression

Panel A: The impact of Google Search Volume

| | On l | On Loan | | Utilization Ratio | |
|-------------------------------|-----------|-----------|-----------|-------------------|--|
| | (1) | (2) | (3) | (4) | |
| Overprice x ESG Score x DGSVI | -1.084*** | -0.706** | -3.607*** | -3.478*** | |
| | (-2.86) | (-2.39) | (-2.91) | (-2.58) | |
| Overprice x ESG Score | -0.554 | -1.233*** | -3.914** | -5.360*** | |
| | (-1.00) | (-2.72) | (-2.37) | (-3.75) | |
| Overprice x DGSVI | 0.561** | 0.211 | 2.398*** | 2.030^{**} | |
| | (2.42) | (0.80) | (3.09) | (2.37) | |
| ESG Score x DGSVI | 0.293** | 0.235* | -0.225 | -0.201 | |
| | (2.15) | (1.68) | (-0.58) | (-0.48) | |
| Overprice | 1.483*** | 1.506**** | 5.807*** | 5.455*** | |
| | (4.29) | (5.23) | (5.36) | (5.84) | |
| ESG Score | -0.718 | 0.065 | -2.659** | -0.638 | |
| DGSVI | (-1.49) | (0.16) | (-2.09) | (-0.55) | |
| Controls | No | Yes | No | Yes | |

Comment-2: Fama-MacBeth results

- No enough short sell for overpriced stocks => more negative future return
- The coefficient of Overprice×Short Sell should be significant positive.

| | Panel B. Controlling for short selling demand | | | | | |
|---------------------|---|-------------|---------|--------------|--|--|
| | (1) | (2) | (3) | (4) | | |
| Overprice x ESG | -0.586** | -0.924*** | -0.447 | -0.757* | | |
| | (-1.98) | (-2.86) | (-1.14) | (-1.93) | | |
| Overprice | -0.055 | 0.243 | -0.202 | 0.037 | | |
| | (-0.27) | (1.15) | (-0.93) | (0.15) | | |
| ESG Score | -0.122 | 0.433^{*} | -0.170 | 0.393^{*} | | |
| | (-0.71) | (1.85) | (-1.08) | (1.82) | | |
| Overprice x On Loan | | | 0.021 | 0.036^{**} | | |
| | | | (1.23) | (2.22) | | |
| On Loan | | | -0.014 | -0.025** | | |
| | | | (-1.07) | (-2.19) | | |
| Overprice x UT | | | | | | |
| - | | | | | | |
| UT | | | | | | |
| | | | | | | |
| | | | | | | |
| Controls | No | Yes | No | Yes | | |
| Adj R-squared | 0.012 | 0.060 | 0.025 | 0.070 | | |
| Observations | 105,986 | 95,104 | 105,986 | 95,104 | | |

Comment-3: Other driving force

• "insufficient short selling demand may not be the only reason for the return predictability"

Any other driving force?

| Panel B. Controlling for short selling demand | | | | | | | | | |
|---|----------|-------------|---------|----------|---------|---------------|--|--|--|
| | (1) | (2) | (3) | (4) | (5) | (6) | | | |
| Overprice x ESG | -0.586** | -0.924*** | -0.447 | -0.757* | -0.466 | -0.652* | | | |
| | (-1.98) | (-2.86) | (-1.14) | (-1.93) | (-1.09) | (-1.70) | | | |
| Overprice | -0.055 | 0.243 | -0.202 | 0.037 | -0.180 | 0.006 | | | |
| | (-0.27) | (1.15) | (-0.93) | (0.15) | (-0.78) | (0.02) | | | |
| ESG Score | -0.122 | 0.433^{*} | -0.170 | 0.393* | -0.176 | 0.381* | | | |
| | (-0.71) | (1.85) | (-1.08) | (1.82) | (-1.09) | (1.72) | | | |
| Overprice x On Loan | | | 0.021 | 0.036** | | | | | |
| | | | (1.23) | (2.22) | | | | | |
| On Loan | | | -0.014 | -0.025** | | | | | |
| | | | (-1.07) | (-2.19) | | | | | |
| Overprice x UT | | | | | 0.008 | 0.014^{**} | | | |
| | | | | | (1.35) | (2.31) | | | |
| UT | | | | | -0.006 | -0.007^{**} | | | |
| | | | | | (-1.33) | (-1.99) | | | |
| Controls | No | Yes | No | Yes | No | Yes | | | |
| Adj R-squared | 0.012 | 0.060 | 0.025 | 0.070 | 0.024 | 0.070 | | | |
| Observations | 105,986 | 95,104 | 105,986 | 95,104 | 105,986 | 95,104 | | | |

Comment-3: Other driving force

- Borrow some ideas from the mechanism analysis
- A risk-based explanation on the return predictability

- Testable hypothesis:
- Cross-section, for synchronization risk
 - The predictability should be stronger among stocks with greater socially responsible institutional ownership
- Time-series, for short-squeeze risk
 - The predictability should be stronger in the period with greater ESG attention

Minor comments

- Overpriced variable:
 - Dummy vs continuous

- Small typo:
 - Page 3: Short squeeze" => "Short squeeze"

Conclusion

- An interesting paper with clear and intuitive motivation
 - The first to investigate the effect of ESG on short selling
 - Causal effect + mechanism + asset pricing implication
 - Well-written and well-executed

- Look forward to its publication in top journals
- Good luck!