Corporate ESG Profiles and Consumption

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Abstract

Using transaction-level credit card data from a leading Chinese commercial bank, we find that **consumers increase quarterly consumption by 5.3 %** when the firm's environmental, social, and governance **(ESG) rating increases by one unit**. The **positive news about firms** and **consumer attention** play significant roles in the relationship between firms' ESG profiles and consumption. The response is more pronounced among **female, unmarried, younger, and more educated consumers, and for nondurable items**. To address endogeneity concerns, we perform a difference-in-differences analysis. Overall, our study provides insight into the impact of ESG performance on credit card spending.

Background & Motivation

Consumers are becoming more proactive in their pursuit of a **sustainable lifestyle**.

- They care about what they consume, where it comes from, who produced it, and how it was produced (Keloharju, Knüpfer, and Linnainmaa, 2012).
- A Nielsen survey conducted in 2018 found that 48 % of consumers were likely to change their consumption habits to limit their environmental impact with **$128.5 billion spent on sustainable fast-moving consumer goods**.

Increasing discussion on the individuals' consumption response to income shock; housing wealth; monetary policy; peers. However, **there is less literature focusing on firms' ESG performance**. **(Data constraints)**

What We Do

We merge a dataset with credit card spending records with a dataset containing corporate ESG profiles. Analyze the following questions:

- **How credit card spending responds to corporate ESG profiles?**
- Long-term or short-term effect?
- The moderating effects of media coverage and consumers attention.
- Heterogenous effect from different consumers and consumption type.
- Endogeneity problem.

Data

Credit card spending data:

- derived from a leading commercial bank in including the **information on each transaction** (transaction amount, transaction date, merchant name, and merchant category codes) and consumer level information from June 2013 to December 2015.

ESG profiles:

- Sino-Securities quarterly ESG rating covered more than 80% Chinese listed firms since 2009.

We match these two datasets to construct a **merchant-consumer** dataset, the **final sample includes 297,252 consumers, and 773 listed firms.**

Empirical Specification

$$Y_{i,j,t} = \beta_0 + \beta_1 * ESG_{i,t-1} + X_{i,t-1} + \delta_i + \varphi_j + \gamma_t + \varepsilon_{i,j,t}$$

Where:

- $Y_{i,j,t}$ measures the credit card spending by consumer j on firm i in fiscal quarter t, using the logarithm term;
- $ESG_{i,t-1}$ is the Sino-Securities ESG rating for firm i in quarter *t-1*.
- $X_{i,t-1}$ is a vector of firm-level control variables including $Ln(Size)$, BM, EDR, $Sales\ Growth\ Rate$, ROA, $Advertising\ Intensity$ and $R\&D\ Ratio$ in fiscal quarter *t-1* and $Capex\ Ratio$ in the last year.
- δ_i, γ_t and φ_j denote the firm, year-quarter and firm fixed effects, respectively.

Key Findings

INDEPENDENT VARIABLES	(1) ESG_t	(2) ESG_{t-1}	(3) ESG_{t-2}	(4) ESG_{t-3}	(5) ESG_{t-4}	(6) ESG_{t-5}
ESG	0.029***	0.053***	0.046***	-0.001	0.004	-0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Individual & Firm &Quarter FEs	YES	YES	YES	YES	YES	YES
Cluster	Individual	Individual	Individual	Individual	Individual	Individual
Observations	4,413,887	4,413,766	4,413,637	4,411,494	4,404,117	4,395,528
R-squared	0.081	0.081	0.081	0.081	0.081	0.081

A one-unit increase in the ESG rating is associated with an increase of 5.3 % in consumption in the next quarter and the effect of ESG ratings is not persistent.

➢ We also use the **anti-corruption campaign** in China as an exogenous shock on firms' ESG performance to alleviate the endogeneity.

a) This campaign **reduced rent-seeking opportunities** for firms in the inspected provinces.

b) When the anti-corruption began, firms faced **a more transparent market environment**.

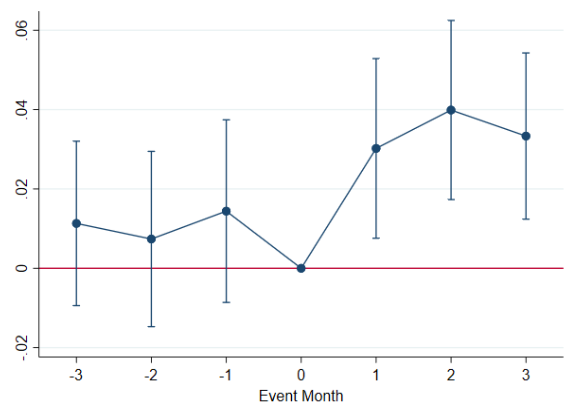
c) This campaign put firms under greater scrutiny, **increasing stakeholders' attention**.

Event study with staggered treatment as following:

$$Y_{i,j,t} = \beta_0 + \beta_1 * AC_{i,t} + X_{i,t-1} + \delta_i + \varphi_j + \gamma_t + \varepsilon_{i,j,t}$$

- $AC_{i,t}$ is constructed by the month of CCDI's inspection in each province which refers to the time relative to the start time of each round of inspections.

VARIABLES	(1) $Ln(C_t)$	(2) $Ln(C_t)$
AC_0		-0.011
		(0.009)
AC	0.020***	0.023***
	(0.004)	(0.004)
Firm controls	YES	YES
Individual & Firm &Month FEs	YES	YES
Cluster	Individual	Individual
Observations	2,903,091	2,903,091
R-squared	0.136	0.136



Additional Tests

- **Positive news of firms** as well as **consumers attention** promote the relationship between ESG rating and consumption; whereas **negative news** would suppress the positive impact of ESG rating on consumption.
- The effect of ESG on consumption is more pronounced among **female, unmarried, younger, and more educated consumers, and for nondurable items.**
- Find similar results using **alternative consumption measure, alternative ESG rating, and different samples**.

Contribution

Through constructing a unique merchant-consumer dataset, our paper provides direct evidence that firms' ESG performance influences consumers' spending behavior, which is consistent with the stakeholder value maximization theory. Consumers are more likely to reward firms with high ESG performance by increasing their purchase intentions, resulting in an increase in cash flow for the firm.

References

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