

Does Corporate Social Responsibility Reduce the Costs of High Leverage? Evidence from Capital Structure and Product Markets Interactions

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Research Background: High leverage costs

- **Customer**-driven costs of high leverage (Maksimovic and Titman, 1991; Titman, 1984)
 - Implicit contracts
 - High leverage ↑ breaking implicit contracts (↓ product support, quality)
 - Customers are unwilling to purchase from HL firms.
- **Competitor**-driven costs of high leverage (Telser, 1966; Bolton and Scharfstein, 1990; Chevalier, 1995)
 - High leverage → financially weak
 - Competitor predation (capital intensive promotion activities, e.g., deep price discounts)
 - Surrender market shares

Featured Papers

Findings

Campello (2006)

High indebtedness ↓ relative-to-rival sales growth
Moderate debt taking ↑ relative-to-rival sales growth

Opler and Titman (1994)

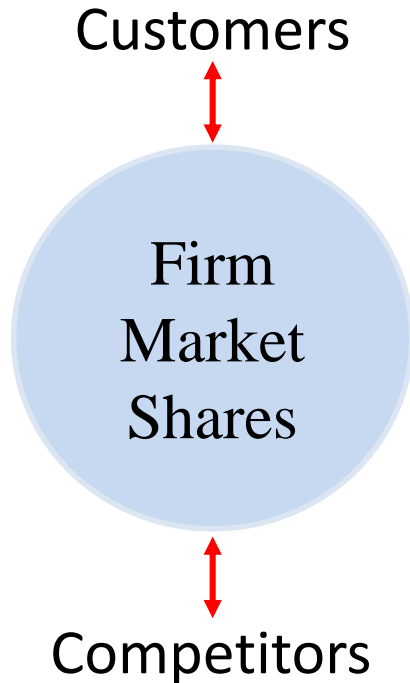
High leverage ↓ relative-to-rival sales growth in industry downturns

Campello (2003)

Debt ↓ relative-to-rival sales growth in less constrained industries during recessions

Additional evidence on the negative effects of HL: Brander and Lewis (1986, 1988); Maksimovic (1986, 1988, 1995); Bolton and Scharfstein (1990); Maksimovic and Titman, 1991; Chevalier and Scharfstein, 1996; Maurer, 1999; Campello and Fluck, 2006; Matsa, 2011(supermarket); Phillips and Sertsios, 2013 (airline); Kini et al., 2016 (product recalls); Kim, 2016 (business groups affiliates in Korea), etc.

Motivation: determinants of high leverage costs



- Extant literature: negative consequences of high leverage policies.
- Little is known on the mechanisms that mitigate the high leverage costs.

Capital Structure and Product Markets Model

Research Questions

- Does CSR **mitigate** high leverage costs (i.e., documented negative effects of HL on product market performance)?
 - CSR: firm actions that further some social good, beyond the interests of the firm and that which is required by law” (McWilliams and Siegel, 2001).
 - An important global business practice: improves firm-stakeholders relations and influence a firm’s competitiveness, survival, performance.
- Does the effect of CSR operate separately through **customers** and **competitors**?

Theory

- CSR can play a risk management role by protecting firms from stakeholders' unfavorable actions, reducing the costs of high leverage.
 - **Halo effect, trust** (Hong and Liskovich, 2015; Lins et al., 2016)
 - ↑ supports from stakeholders, during tough times.
 - CSR provides an insurance-like protection
 - **Access to financing**
 - Lower level of Risk
 - Wider investor base

(Waddock and Graves, 1997; Hong and Kacperczyk, 2009; El Ghouli et al., 2011; Chava, 2014)

 - Allows firms to withstand the predatory attacks of competitors.
- Diagrammatic connections: Dotted blue arrows point from the 'Halo effect, trust' and 'Access to financing' sections to 'Customer-driven costs' and 'Competitor-driven costs'.

Main Regression

Costs of High Leverage (Campello, 2006)

$$SALES_G_{i,t} = a + \lambda_1 HLEV_{i,t-2} + controls + \varepsilon_{i,t},$$

- *SALES_G*: firm's sales growth relative to its industry-rivals in a given year; It reflects actions of customers and competitors.
- *HLEV*: Top-3 deciles and based on long-term debt to mitigate reverse causality.
- Costs of HL (λ_1): sensitivity of industry-adjusted sales growth to HL.
 - A more negative coefficients suggests a higher cost.

CSR and Costs of High Leverage

$$SALES_G_{i,t} = b + \beta_1 CSR_{i,t-2} \times HLEV_{i,t-2} + \beta_2 HLEV_{i,t-2} + \beta_3 CSR_{i,t-2} + controls + \varepsilon_{i,t}$$

Predictions

$\beta_1 > 0$ (CSR is **value-enhancing**)

Controls

Firm-level variables: *Firm Size, Profitability, Investment, Sell Expenses.*

All variables are measured relative-to-peers; 2-year lag for test variables.

Data Sources and Sample

- Data Sources
 - CSR Data: MSCI ESG STATS
 - **Most extensive & widely used** (e.g., Bae et al., 2011; Bae et al., 2011; El Ghouli et al., 2011; Deng et al., 2013; Servaes and Tamayo, 2013; Di Giuli and Kostovetsky, 2014; Krüger 2015; Lins et al., 2015; Hong and Liskovich, 2015)
 - **Coverage:** S&P500, Domini social index, Russell 1000 index, Large cap social index, Russell 2000 index, Broad market social index.
 - **Areas:** Community, Diversity, Employee relations, Environment, Human rights, Product characteristics, **Corporate governance.**
 - **CSR measure** (Deng et al., 2013): $(\#strengths - \#concerns)/\#factors$
 - High leverage costs and controls: COMPUSTAT
- Sample
 - Sample period: 1996-2012
 - Number of firms: 2,739
 - Firm year observations: 16,390

CSR and High Leverage Costs

(1/3 baseline)

Dep Variables: <i>SALESG</i>	$HLEV_{t-2}$ (1)	CSR_{t-2} (2)	CSR_{t-2} (3)
$CSR_{t-2} \times HLEV_{t-2}$		0.023*** (3.00)	0.025*** (3.28)
$HLEV_{t-2}$	-0.016*** (-3.86)	-0.019*** (-4.61)	-0.015*** (-3.85)
CSR_{t-2}		-0.006 (-1.17)	-0.010** (-2.11)
$SIZE_t$	-0.000 (-0.02)		0.000 (0.19)
$PROFIT_{t-1}$	0.064*** (3.11)		0.064*** (3.13)
$PROFIT_{t-2}$	-0.006 (-0.29)		-0.006 (-0.27)
$INVESTMENT_{t-1}$	0.323*** (3.75)		0.324*** (3.78)
$INVESTMENT_{t-2}$	0.111 (1.39)		0.112 (1.40)
$SELLEXP_{t-1}$	0.000 (0.00)		0.000 (0.01)
$SELLEXP_{t-2}$	0.018 (1.17)		0.019 (1.18)
CONSTANT	-0.009** (-2.37)	-0.003 (-1.44)	-0.009** (-2.44)
N	16,390	16,390	16,390
R-squared	0.012	0.002	0.013

↑ CSR by one standard deviation, recovery of **70%** high leverage costs



CSR and High Leverage Costs

(2/3 endogeneity)

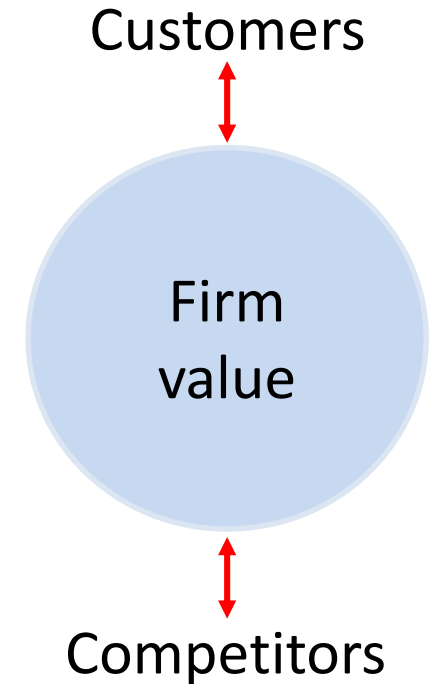
Endogeneity of	1. CSR	2. High leverage
Concerns	Unobserved Omitted Variables (Deng et al., 2013)	Reverse Causality (Opler and Titman, 1994)
<u>Tests</u>	<ul style="list-style-type: none"> • RDD (Flammer, 2015; Cunaat et al., 2012): use shareholder sponsored CSR proposals. • Exogenous Shocks (Valta, 2012; Campello, 2003): impact a firm's competitive position (demand for products), and therefore, intensify stakeholders' reactions to HL, but are <u>exogenous</u> to CSR (2-year lag). • 2 SLS <ul style="list-style-type: none"> ▪ Instruments: Democratic state (Deng et al., 2013), lagged <i>CSR</i>, lagged <i>HLEV</i> (Campello, 2003) • System GMM • Firm Fixed Effects 	

CSR and High Leverage Costs

(3/3 channels)

- Evidence shows the combined effect of CSR on the costs of HL.
- Can CSR affect customer- and competitor-driven costs?
- Split-sample tests: if CSR reduces both types of costs, then effects shall be stronger when these costs are higher.

Channels	1. Customers	2. Competitors
<u>Tests</u>	High vs. Low product specificity	High vs. Low competitive environment



Conclusion

- We find that, consistent with **value-enhancing** view of CSR, CSR reduces the costs of high leverage.
- We further find that CSR reduces both **customer-** and **competitor-**driven costs of high leverage.