

Firm reputation and the cost of bank debt

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Introduction

Using Fortune's Most Admired Companies survey data as proxy for firm reputation, I find that reputable borrowers enjoy lower borrowing costs and better loan contract terms: Relative to otherwise similar loans, loans initiated after a firm being recognized as Most Admired Companies are associated with **15% lower borrowing costs, 6% fewer financial covenants, and 7% lower likelihood of collateral requirements.**

This paper identifies an increasingly important— yet unexplored — determinant of firms' borrowing cost: reputation. Evidence also suggests that borrowers take advantage of their good reputation status by increasing future spending on investments. The findings have implications for managers weighing the costs and benefits of building or maintaining their firm's reputation.

Hypotheses

Informed Lender Hypothesis

Banks are already aware of the private information contained in firms' reputation status, and they will **NOT** reward reputable borrowers with better loan contract terms.

Information Asymmetry Hypothesis

Fortune's Most Admired Companies list, which aggregates opinions on financial and non-financial performance from various industry experts, can provide banks with new information through a **collective intelligence**. Banks gaining valuable information from firms' reputation status thus incorporate it into loan contract terms.

Fortune's Most Admired Companies

Since 1983, Fortune has sent out surveys to industrial professionals and ask them to rate the 10 largest firms from her own industry from 1 (poor) to 10 (excellent) on eight attributes:

Industry	Company	Rank	Overall Score	Most Admired
Computer and Data Services	AOL Inc	1	7.11	MA
Computer and Data Services	Automatic Data Processing	2	6.86	MA
Computer and Data Services	First Data	3	6.32	MA
Computer and Data Services	Computer Sciences	4	6.11	MA
Computer and Data Services	Electronic Data Systems	5	6.1	MA
Computer and Data Services	Unisys	6	5.56	C
Computer and Data Services	Dun & Bradstreet	7	5.52	C
Computer and Data Services	Science Applications Intl	8	5.44	C
Computer and Data Services	Comdisco	9	5.28	C
Computer and Data Services	Micro Warehouse	10	4.92	C

Reputation:

- Most Admired scores/ranks
- Most Admired dummy: equals one if a firm's MA score ranks in the top half of its industry.

Methodology & Baseline Results

Cost of bank debt_{i,s,j,t}

$$= \alpha_1 + \alpha_2 \text{Reputation}_{i,j,t-1} + \alpha_3 \text{Firm characteristics}_{i,j,t-1} + \alpha_4 \text{Loan characteristics}_{s,t} + \delta_t + \gamma_i + \epsilon_{i,j,t}$$

	Full sample (1)	Subsample with MA scores (2) (3) (4)	
Most Admired dummy	-0.160*** (-5.564)	-0.155*** (-3.733)	
Score			-0.103*** (-4.210)
Rank			-0.037*** (-3.238)
Firm Controls	Yes	Yes	Yes
Loan Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	19,304	3,876	3,876
Adjusted R2	0.696	0.754	0.754

Identification Strategies

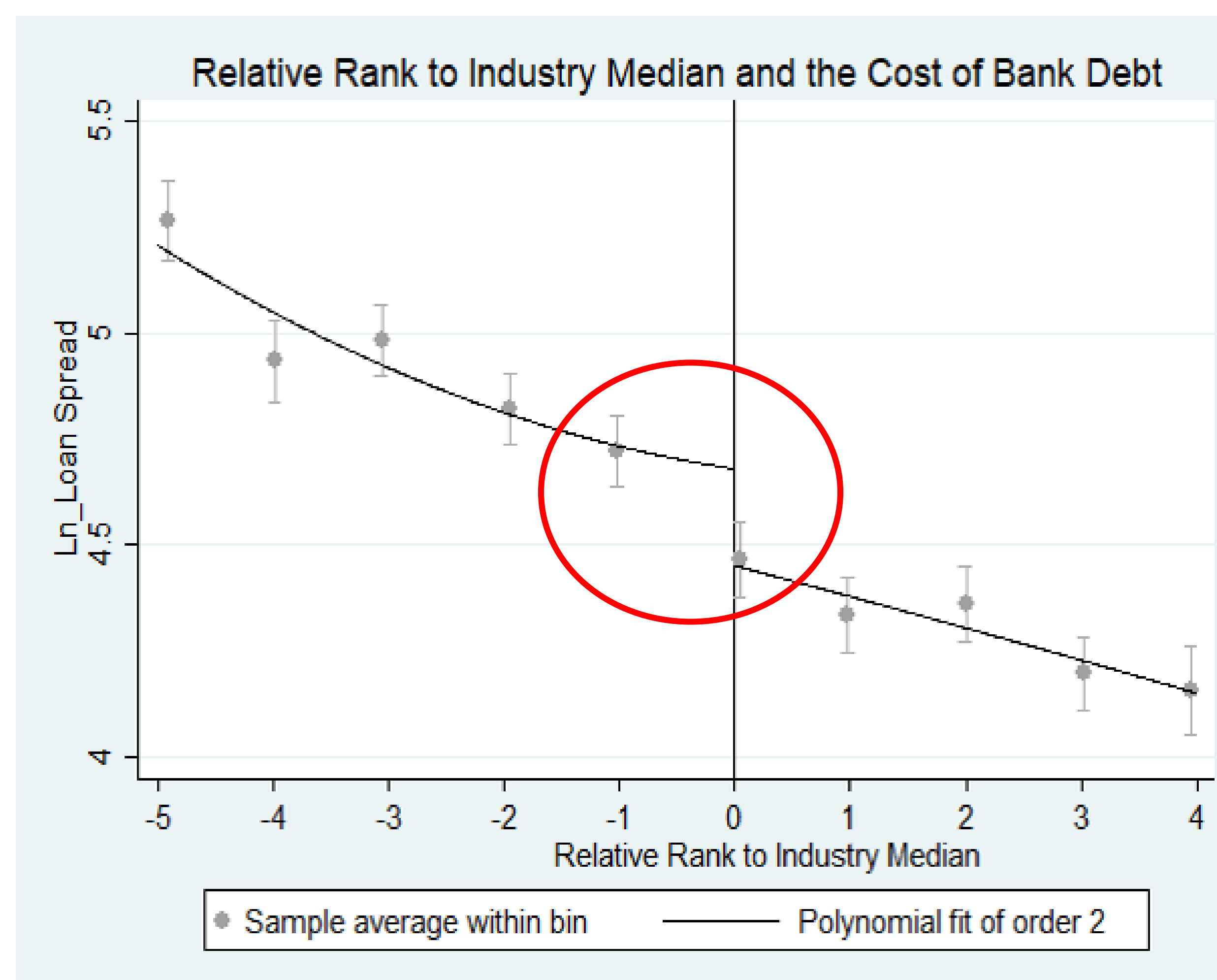
1. Propensity Score Matching Analysis

- Treatment group: Firms being recognized as "America's Most Admired Companies"
- Control group: the closest firm in the common support (Contender firms) by propensity scores

	Treatment (Obs. =2,689)	Control (Obs. = 2,689)	Difference	T-statistics
Propensity Score	0.62	0.62	0.00	0.31
Size	9.38	9.38	0.00	-0.11
Age	33.73	33.28	0.46	0.93
M/B	4.16	4.48	-0.32	-0.44
Tangibility	0.30	0.30	0.00	-0.14
Z-score	2.23	2.29	-0.06	-1.64
Cash	1,830	1,836	-5.80	-0.07
Profitability	0.06	0.05	0.01	1.49
Sales Growth	0.09	0.09	0.00	0.49
Institutional Ownership	0.78	0.75	0.02	1.28
Leverage	0.32	0.31	0.00	0.87

	Treatment (Obs. =1,894)	Control (Obs. = 1,854)	Difference	T-statistics
Cost of Bank Debt	4.38	4.64	-0.26***	-8.38
No of Financial Covenants	0.86	1.03	-0.17***	-4.95
Loan Securitization	0.22	0.28	-0.06***	-4.50

2. Regression Discontinuity Design



Cutoff: industry median score

Assign **positive (negative)** sequence numbers to firms whose scores are **above (below)** their industry median and set the cutoff as zero

$$\begin{aligned} \ln(\text{LoanSpread})_{i,s,j,t} = & \alpha_1 + \alpha_2 \text{MostAdmired}_{i,j,t-1} \\ & + \alpha_3 (\text{RelativeRank} - 0)_{i,j,t-1} \\ & + \alpha_4 \text{MostAdmired}_{i,j,t-1} * (\text{RelativeRank} - 0)_{i,j,t-1} \\ & + \alpha_5 * \text{Controls} + \delta_t + \gamma_i + \epsilon_{i,j,t} \end{aligned}$$

	(1)	(2)	(3)	(4)	(5)	(6)
MostAdmired	-0.244*** (-3.422)	-0.264*** (-3.591)	-0.171*** (-2.679)	-0.180*** (-2.800)	-0.229*** (-3.679)	-0.244*** (-3.992)
RelativeRank	-0.063*** (-4.396)	-0.089*** (-4.428)	-0.037*** (-2.794)	-0.053** (-2.534)	-0.017 (-1.240)	-0.042* (-1.760)
MA*RR		0.048* (1.669)		0.028 (1.091)		0.042 (1.556)
Firm Controls	No	No	Yes	Yes	Yes	Yes
Loan Controls	No	No	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	3,851	3,851	2,623	2,623	2,565	2,565
Adjusted R2	0.475	0.476	0.686	0.686	0.780	0.780

Identification Strategies (Cont)

3. Clean Reputation Measure

- Estimate a model of MA scores (ranks) as a function of five financial and operating variables: operating return on assets (contemporaneous and lagged one period), industry-adjusted market to book, sales growth, sales, and leverage.
- Use **the residual** from this model as the clean MA scores (ranks).

	Cost of bank debt		No. of financial covenants		Loan securitization	
	(1)	(2)	(3)	(4)	(5)	(6)
Clean MA score	-0.086*** (-3.517)		-0.076** (-1.997)		-0.027* (-1.772)	
Clean MA rank		-0.022*** (-2.628)		-0.013* (-1.731)		-0.008* (-1.774)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Loan Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	3,791	3,791	3,791	3,791	3,791	3,791
Adjusted R2	0.758	0.757	0.585	0.584	0.565	0.564

Information Contained in Reputation

	Future Operating Cash Flow		Stock Return Volatility		Loan Violation Probability	
	(1)	(2)	(3)	(4)	(5)	(6)
Clean MA score	0.007*** (5.255)		-0.005*** (-3.852)		-0.034** (-2.011)	
Clean MA rank		0.002*** (5.622)		-0.001** (-2.459)		-0.013** (-2.027)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Loan Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4,727	4,727	4,727	4,727	1,271	1,271
Adjusted R2	0.544	0.545	0.565	0.562	0.438	0.44

Real Effects of Reputation on Investments

	Capital Expenditure			Research & Development		
	(1)	(2)	(3)	(4)	(5)	(6)
Most Admired	0.183* (1.772)			0.268** (2.077)		
Score		0.370*** (5.775)			0.242*** (3.116)	
Rank			0.044** (2.263)			0.054** (2.034)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	5,021	5,021	5,021	5,111	5,111	5,111
Adjusted R2	0.782	0.785	0.782	0.577	0.579	0.578

Conclusions

- Relative to otherwise similar loans, loans initiated after a firm being recognized as Most Admired Companies are associated with better loan contract terms.
- Banks reward reputable firms with better contract terms because this reputation proxy contains incremental information on borrower future performance and credit risk.
- Firms increase capital expenditures and R&D after receiving the Most Admired designation.