

## How Does a Firm's Environmental Profile Impact Its Cost of Equity and Debt Capital?

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### » Research Questions Addressed

How do a firm's environmental strengths and concerns influence the interest rate it receives when borrowing money from financial institutions?

How does a firm's environmental footprint (its environmental strengths and concerns) affect the return required by investors?

Is a firm's environmental profile simply a substitute for unaccounted default risk?

Do environmental concerns influence the number of institutional investors a firm has or the number of banks from which they borrow money?

### » Relevant Sector

Finance

### » Primary Findings

Investors require significantly higher expected stock market returns when firms have environmental concerns—resulting in a higher cost of equity for these firms. Investors demand higher returns to offset the increased risk that arises from potential future regulation, compliance costs, or litigation.

Lending institutions charge significantly higher interest rates to firms that have more environmental concerns than strengths. Higher interest rates increase the cost of debt to the firm and offset the perceived risk to the environment and reputation incurred by the lender.

The presence of environmental concerns neither increases nor decreases a firm's risk of bankruptcy or a credit rating downgrade—highlighting that a firm's environmental profile is not simply proxying for unaccounted default risk.

Firms with environmental concerns have significantly fewer institutional investors than firms without such concerns. Institutional investors, such as banks or pension funds, are likely to screen out stocks based on environmental concerns. Similarly, firms with environmental concerns borrow money from a smaller number of lenders.

### » Keywords

Banks

Cost of capital

Environmental externalities

Finance

Financial institutions

Investment





## » Highlights

Investors expect a rate of return 0.7% higher per annum for firms that have environmental concerns.

Climate change concerns have the largest impact on investor expectations. For firms with such concerns, investors demand returns that are 0.47-0.69% higher than for those firms without such concerns.

Lenders charge firms with more environmental concerns than strengths an interest rate that is 20% higher than the rate for firms that have an equal number of environmental concerns and strengths.

Lenders charge 12-13% higher on loans to firms that have hazardous waste concerns. Conversely, lenders charge 20% less on loans to firms that derive their revenue from a good or service that benefits the environment.

## » Topic Overview

Firms primarily rely on equity and debt to finance their investment and operations. With the increasing prevalence of socially responsible investing (SRI), a firm's environmental concerns and strengths can affect the return that investors demand (cost of equity) and the interest rate banks charge for loans (cost of debt). Environmental concerns in the study include hazardous waste sites, the legal emission of toxic chemicals, and climate change concerns. Environmental strengths include producing a beneficial good or service, investing in pollution prevention and/or clean energy, and clearly communicating environmental impact.

## » Link to Academic Paper

Chava, S. (2014). [Environmental Externalities and Cost of Capital](#). *Management Science* 60(9), 2223-2247.

## » Related Link

Sindreu, J., & Kent, S. (2018, September 1). [Why It's So Hard to Be an 'Ethical' Investor](#). *The Wall Street Journal*. Retrieved from <http://www.wsj.com>

## » Implications for Sustainable Business

The prevalence of socially responsible investing (SRI) has increased significantly over the last two decades. The total amount of money contributed towards SRI increased 324% between 1995 and 2007 and over 50 times over the last two decades. Nearly \$1 of every \$8 is invested under SRI guidelines and includes both institutional and individual investors as well as financial institutions. When external financing (equity or debt) costs are affected by the environmental footprint of the firm, firms may have to internalize their environmental externalities and adopt more environmentally beneficial, albeit expensive, technology.