On The Micro-Determinants of Credit Spreads

ECO375: Empirical Project

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November 27, 2025

micro determinants of the spread of the change over time

leverage, volatility, liquidity, firm size, and corporate governance play a significant role in explaining credit spread variations across firms and over time.

1 Introduction

The variables are as follows

Variable	Description
Issuer	Name of the company that issued the bond
Spread	The difference between the bond's yield and the yield on a government bond of the same maturity. Measured in bps
Ticker Parent	Identifier for the parent company
Enterprise Value to Sales	Measures how expensive a company is relative to its revenue
Enterprise Value to PPE	Measures valuation relative to tangible assets
Price to Sales	How much investors pay for $1 of revenue
Price to Book Value	Measures how expensive the firm is relative to accounting equity
Dividend Yield	Return shareholders receive from dividends
Return on Average Total Equity	How efficient the firm is with investments
Operating Margin	Core profibility measure
Total Capital Expenses to Total Assets	How much firm invests in long-term assets
Book Value per Share	Accounting value per share
Asset Turnover	Measures how well assets generate revenue
Current Ratio	Measures short-term liquidity
Cash Dividend Coverage Ratio	Measures if firm can pay dividends purely from operations
Total Debt to Equity	Measures financial leverage
Total Debt to Total Capital	Shows how much of capital is from debt
Amount Outstanding	Size of the bond
Years to Maturity	Number of years until the bond pays back its principal
Coupon	Annual interest payment made to bondholders

Higher spread = higher perceived risk

2 Firm value and capital structure ratios

Enterprise Value = Market Cap + Total Debt - Cash EVtoSales measures how expensive a company is relative to its revnue High EV/Sales -> market expects high growth OR company is overvalued High EV -> lower PERCEIVED risk -> lower spreads

PPE is actual long-term assets (machines, buildings, equipment) High EV/PPE -> growth-oriented High EV/PPE -> riskier -> higher spreads

High P/S -> confidence -> lower spreads

Book Value = Assets - Liabilities P/B <1 -> undervaluation -> financial distress -> higher spreads

Dividend yield -> higher MAY indicate risk

High RATE -> more efficient -> lower spreads

3 profitability and operational efficiency

operating margin = earnings before interest and taxes/revenue high margin -> lower default risk (firm is efficient) -> lower spreads

High total capital expenses to total assets -> lower spreads or less cash :

low book value per share -> maybe bankrupt

High asset turnover -> efficient -> lower spreads

4 Liquidity and Cash flow ratios

current ratio = current assets (cash + receivables + inventory)/ current liabilities (obligations due) low current ratio -> liquidity risk -> higher spreads

Cash dividend coverage ratio = operating cash flow/cash dividends paid lower coverage -> weak cash flow -> higher spreads

5 Leverage and Capital Structure

high total debt/shareholder equity -> in debt -> higher spreads

high total debt/(total debt + equity) -> high reliance on debt -> high spreads

6 Bond specific

Higher amount outstanding -> lower spreads (more liquid?) smaller amount outstanding -> higher spreads

years to maturity -> more interest rate and credit risk -> higher spread (risk premium)

low couponds -> high price sensitivity? MAYBE. Higher does not not imply higher here

SLR assumptions: linearity in parameters Random sampling no perfect colllnearity Zero conditional mean Homoskedasticity (1-4) unbiased ness add 5 to get BLUE 6 is normality

difference in percentages: basis points

6.1 Description of variables

do now without stata

The variables in data are Issuer: Name of the bond issuer Ticker Parent: The parent of the issuer Enterprice Value to Sales: Market Capitalization+total debt - cash & cash equivalents over revenue Enterprise Value to PPE: Market capitalization +Total debt - cash & cash divided by Net Property, Plant, and Equipment where PPE measures tangible, long-term fixed asses (land, buildings, machinery, equipment), usually net of accumulated depreciation. Price

(Collin-Dufresn, Goldstein, and Martin 2001) added total debt to equity and enterprice valuue to sales. ## Statement of hypothesis/research question

which factors are important

7 Literature Review

do now “For banks, credit spread can be an indicator of the profitability or risk premium related to a lender providing a loan to an individual borrower. The credit spread accounts for the maturity, liquidity, credit risk, and creditworthiness of borrowers. In this study, credit spread is defined as the difference between the loan rate and risk-free rate.” (**u2021investigating?**)

8 Descriptive

8.1 Tables

8.2 Plots

8.3 Summary of key variables

9 Methodology

9.1 Clear statement of the model and its assumptions

9.2 Specification tests

9.3 Robustness considerations

10 Hypothesis Testing

10.1 Choise of appropriate test

testing hi this is normal text.

11 Results

11.1 Correct interpretation of results

Economic intuition provided

Collin-Dufresn, Pierre, Robert S Goldstein, and J Spencer Martin. 2001. "The Determinants of Credit Spread Changes." *The Journal of Finance* 56 (6): 2177–207.