# Task 17 - Cost of Debt

You are a financial analyst at SilverStone Holdings, a growing investment and advisory firm focused on sustainable industries.  
  
The leadership team is assessing the company’s cost of debt for use in calculating WACC and evaluating financing strategies. You have been asked to calculate the company’s cost of debt using both yield-to-maturity (YTM) and after-tax approaches, based on the provided financial data. You will prepare Excel/Google Sheets outputs including tables and graphs.

## Company Data (for Excel input table)

|  |  |
| --- | --- |
| Item | Value |
| Face Value of Bond | £1,000 |
| Current Market Price of Bond | £950 |
| Annual Coupon Payment | £60 |
| Years to Maturity | 5 |
| Corporate Tax Rate | 25% |

## Tasks (Excel Spreadsheet Outputs Required)

### 1️⃣ Cost of Debt Calculation Table

|  |  |  |  |
| --- | --- | --- | --- |
| Method | Formula | Calculation | Cost of Debt (%) |
| Yield to Maturity (YTM) | Use financial calculator or Excel/YIELD formula |  |  |
| After-Tax Cost of Debt | YTM × (1 - Tax Rate) |  |  |

- Estimate YTM using Excel financial functions or iterative calculation.  
- Apply tax shield to calculate after-tax cost of debt.

### 2️⃣ Sensitivity Analysis Table

|  |  |  |
| --- | --- | --- |
| Market Price of Bond | YTM (%) | After-Tax Cost of Debt (%) |
| £900 |  |  |
| £950 |  |  |
| £1,000 |  |  |
| £1,050 |  |  |

- Recalculate YTM and after-tax cost of debt as bond prices change.

### 3️⃣ Graphs (Excel or Google Sheets Chart Suggestions)

- Line Chart: YTM vs Bond Price (from sensitivity table)

- Bar Chart: Compare before-tax and after-tax cost of debt

### 4️⃣ Strategic Discussion (Text Output / Discussion Slide)

- What is the company’s current cost of debt?

- How does bond pricing affect the cost of debt?

- What is the effect of tax shield on financing decisions?

- Discuss implications for WACC and capital structure decisions.

## Deliverables

- Excel / Google Sheets file with:

- Cost of Debt Calculation Table

- Sensitivity Analysis Table

- Graphs (at least one)

- Strategic Discussion Slide