STRETCHLEARN · WORKBOOK

Corporate Finance Fundamentals — Workbook

This workbook turns the course into a working corporate-finance toolkit. Move through it in order: pull a company's three statements and link them, convert earnings into free cash flow, build a defensible cost of capital and WACC, then score real investments with NPV, IRR, payback, and the profitability index, and finish by testing the financing mix. Use the spreadsheet templates to build a free cash flow bridge, construct a WACC, and run a full NPV and IRR analysis on a real project.

Reading the Financial Statements

Pull a real company's three statements and confirm you understand how each number links to the others.

Worksheet: Map the Three Statements

Use a real company's most recent annual report (a 10-K, an investor PDF, or your own books). Record the key figures so the linkages become concrete. Pull from the actual filing, not memory.

Company name and fiscal year-end date

Revenue and net income (income statement)

Total assets, total liabilities, and shareholders equity (balance sheet)

Cash flow from operations, investing, and financing (cash flow statement)

Beginning and ending cash balance

Depreciation and amortization for the period

Exercise: Trace the Linkages

Confirm you can follow a single number through all three statements. Answer each in your own words using the figures you recorded above.

• Does net income from the income statement match the starting line of the operating cash flow section, and where does it land on the balance sheet (retained earnings)?

• Does the ending cash on the cash flow statement equal the cash line on the balance sheet? If not, what is the discrepancy?

• Where does depreciation appear on all three statements (expense, add-back, and accumulated depreciation), and does the treatment make sense?

• Does the balance sheet actually balance: do total assets equal total liabilities plus equity to the dollar?

Exercise: Compute the Quick Ratios

Calculate a few liquidity and profitability measures straight from the statements to see what they reveal about the business.

• What is net working capital (current assets minus current liabilities) and the current ratio (current assets divided by current liabilities)?

• What are the gross margin, operating margin, and net margin, and at which level does most of the profit disappear?

• Did cash flow from operations exceed net income, and what does the gap (or shortfall) tell you about earnings quality?

• Is the company spending more on capex than it generates from operations, and what does that imply about its growth stage?

Checklist: Statement-Reading Integrity Check

[ ] Used a full fiscal year from an actual filing, not a partial or estimated figure
[ ] Confirmed the balance sheet balances to the dollar
[ ] Verified ending cash flows through from the cash flow statement to the balance sheet
[ ] Traced net income into both retained earnings and the operating cash flow start
[ ] Distinguished accrual net income from actual operating cash flow
[ ] Noted whether operating cash flow comfortably covers capex and debt service

Time Value of Money and Cash Flow

Build the discounting muscle and convert a company's earnings into the free cash flow corporate finance actually values.

Exercise: Discount a Cash Flow Stream by Hand

Practice the core mechanic of all valuation. Pick a discount rate (use 8 percent if unsure) and show the math for each step.

• What is the present value of 50,000 dollars received in four years at your chosen discount rate, and what discount factor did you use?

• What is the present value of 10,000 dollars per year for five years (an ordinary annuity) at the same rate?

• Using the growing perpetuity formula, what is the present value of 100,000 dollars next year growing at 3 percent forever at a 9 percent rate?

• How much does that perpetuity value change if growth rises from 3 percent to 4 percent, and why is it so sensitive?

Worksheet: Build a Free Cash Flow Bridge

Convert a company's operating profit into unlevered free cash flow. Use the FCF template alongside this and fill each line from the financials.

Operating income (EBIT), $

Tax rate (%) and after-tax operating profit (NOPAT), $

Add back depreciation and amortization, $

Subtract capital expenditures (capex), $

Subtract increase in net working capital, $

Unlevered free cash flow (result), $

Exercise: Profit Versus Cash Reconciliation

Quantify the gap between accounting profit and deployable cash to internalize why finance discounts cash flow, not net income.

• By how many dollars does your free cash flow differ from net income, and which items (capex, working capital, non-cash charges) drive the gap?

• If revenue grew 30 percent next year, how much additional working capital would the business likely tie up, and what would that do to free cash flow?

• Is this a business that converts most of its profit into cash, or one where growth consumes cash, and what does that mean for how it should be financed?

• Should you use unlevered FCF (for the whole enterprise) or levered FCF (for equity holders only) for your analysis, and why?

Checklist: Cash Flow Quality Check

[ ] Started free cash flow from EBIT, not net income
[ ] Applied the correct tax rate to reach NOPAT
[ ] Added back only genuine non-cash charges (depreciation, amortization)
[ ] Subtracted both capex and the change in net working capital
[ ] Kept the financing decision separate by using unlevered FCF for enterprise analysis
[ ] Documented the source of every input line

Cost of Capital and WACC

Estimate the cost of debt and equity, then blend them into a defensible weighted average cost of capital.

Worksheet: Estimate the Cost of Equity (CAPM)

Build a cost of equity using the Capital Asset Pricing Model. Cite a source for each input so the rate is defensible. Damodaran's NYU Stern tables are a strong free reference for beta and the equity risk premium.

Risk-free rate (long-term government bond yield), %

Beta (from a data source or industry comparable)

Equity risk premium, %

Cost of equity = risk-free + beta x ERP, %

Source cited for each input (yes/no)

Note: is beta for a public comparable, and was it relevered for this firm's leverage?

Worksheet: Construct the WACC

Blend the cost of equity and the after-tax cost of debt by their market-value weights. Use the WACC template to keep the math clean.

Market value of equity (E), $ and weight (E/V), %

Market value of debt (D), $ and weight (D/V), %

Cost of equity (Re), %

Pre-tax cost of debt (Rd), % and tax rate (Tc), %

After-tax cost of debt = Rd x (1 - Tc), %

WACC = (E/V x Re) + (D/V x Rd x (1 - Tc)), %

Exercise: Stress-Test the Discount Rate

Because WACC drives every valuation, see how much the answer moves when the inputs move. Show the value at each rate.

• Recompute WACC if the cost of equity rises by two points: how much does the blended rate change?

• Using a growing perpetuity, value a 500,000 dollar cash flow growing 3 percent at WACC minus one point, at WACC, and at WACC plus one point. What is the spread?

• How much of your enterprise value swing comes from the discount rate alone versus the cash flow forecast?

• What single CAPM input (risk-free rate, beta, or ERP) is your value most sensitive to, and is it well-sourced?

Checklist: Cost-of-Capital Defensibility

[ ] Used market-value weights for debt and equity, not book values
[ ] Applied the after-tax cost of debt to capture the interest tax shield
[ ] Sourced and cited every CAPM input
[ ] Confirmed the perpetual growth rate stays below long-run GDP growth
[ ] Matched the rate to the cash flow (WACC for unlevered, cost of equity for levered)
[ ] Presented WACC as a small range, not false-precision single decimal

Investment Decisions and Capital Structure

Score a real project with NPV, IRR, payback, and PI, then test whether the firm's financing mix is sound.

Worksheet: Evaluate a Real Project

Pick an actual investment you face (equipment, a hire, a marketing push, a new location) and run the full capital-budgeting workup. Use the NPV/IRR template to do the discounting.

Initial investment (year-zero outlay), $

Projected free cash flow for each year of the project's life, $

Discount rate used (normally your WACC), %

Net present value (NPV), $

Internal rate of return (IRR), %

Payback period (years) and profitability index (PI)

Exercise: Make and Defend the Decision

Turn the numbers into a recommendation a manager or lender would accept. Be explicit about which rule governs.

• Is the NPV positive, and how many dollars of value would the project create or destroy today?

• Does the IRR exceed your hurdle rate (WACC), and how much margin of safety is there above it?

• If you had to choose between this and a competing project, do NPV and IRR agree, and which do you follow if they conflict?

• Did you use only incremental cash flows and exclude sunk costs, and would the decision change under a pessimistic cash flow case?

Worksheet: Assess the Capital Structure

Evaluate whether the business is financed sensibly given its risk and assets. Pull the figures from the balance sheet and income statement.

Total debt, total equity, and debt-to-equity ratio

EBIT and interest expense, and interest coverage ratio (EBIT / interest)

Cash flow stability (recurring vs. volatile) and asset tangibility (collateral available?)

Growth stage (early/high-growth vs. mature cash-generator)

Unused borrowing capacity / financial flexibility (high/medium/low)

Is the firm under-levered, appropriately levered, or over-levered, and why?

Checklist: Decision and Financing Final Pass

[ ] Used NPV as the primary decision rule and accepted only positive-NPV projects
[ ] Discounted incremental free cash flow at the project's WACC
[ ] Cross-checked with IRR, payback, and PI and resolved any conflicts in favor of NPV
[ ] Excluded sunk costs and counted only cash that changes with the decision
[ ] Checked interest coverage stays comfortably above 3 to 4 times
[ ] Confirmed the debt level matches the business's cash flow stability and asset base

Your Action Plan

1. Pull a real company's three financial statements and confirm you can trace net income, cash, and depreciation through all three.
2. Compute net working capital, the current ratio, and the three profit margins to read the company's liquidity and profitability.
3. Convert operating income (EBIT) into unlevered free cash flow by adjusting for tax, depreciation, capex, and working capital.
4. Estimate the cost of equity with CAPM, sourcing the risk-free rate, beta, and equity risk premium.
5. Calculate the after-tax cost of debt and blend it with the cost of equity into a market-value-weighted WACC.
6. Run a sensitivity table on WACC and growth so you present value as a range, not a single false-precision number.
7. Build the free cash flow forecast for a real project you face, using only incremental cash flows.
8. Discount the project's cash flows at the WACC to compute NPV, then compute IRR, payback, and the profitability index.
9. Make the accept or reject decision on NPV, using IRR and the other metrics as supporting evidence and a margin of safety.
10. Assess the firm's debt-to-equity and interest coverage, and judge whether the financing mix fits its cash flow stability and assets.