



Glossary & Key Concepts

Commercial & Industrial (C&I) Credit Analysis and Underwriting

Learning Path: Commercial & Industrial (C&I) Credit Analysis and Underwriting

Topic: Commercial & Industrial (C&I) credit analysis and underwriting

Path Overview

Description: This reference supports a nine-course path (seven core, two deep-dive) that walks a credit professional through the entire analytical process behind a commercial credit decision, from the first qualitative impression of a borrower to the finished credit memorandum. The path follows a single analytical decision tree: assess management and competitive advantage, perform financial statement analysis of the statements and ratios, analyze cash flow to find the borrowing cause, project the primary source of repayment, weigh the guarantor as the secondary source of repayment, identify non-financial key risk indicators, mitigate the risks with covenants, and reduce the recommendation to a single decisive consideration.

Learning Objectives:

- Frame any commercial credit around the four fundamental issues and screen a borrower early on qualitative data before spending effort on the numbers.
- Perform financial statement analysis of commercial financial statements for financial reporting reliability and owner-payout distortion, then compute and interpret the key performance ratios organized around the business drivers.
- Convert accrual results into cash with the UCA cash flow statement to pinpoint the true borrowing cause and judge debt capacity.
- Build a defensible base-case projection and stress test it to evaluate the primary source of repayment, then assess a guarantor as the secondary source of repayment using a personal cash flow statement.
- Identify non-financial key risk indicators, protect all three sources of repayment with well-designed covenants, and reduce the analysis to a standard credit memorandum.

Glossary

Term	Definition
ABL monitoring review	The periodic verification of borrowing-base collateral (receivables, inventory) supporting an asset-based facility.
Accounting equation	Assets = Liabilities + Equity; the identity every transaction preserves and that the balance sheet expresses at a point in time.
Accounting profit	Net profit as reported on the income statement under accrual accounting, before any adjustment for owner payouts or excess owner compensation.
Accounts payable (AP)	Amounts owed to trade suppliers for goods or services received but not yet paid; a working liability that finances part of the operating cycle.
Accounts receivable (AR)	Amounts invoiced to customers but not yet collected; a working asset whose collection speed drives operating cash flow.
Accrual-basis accounting	Recording revenue when it is earned and expenses when they are incurred, regardless of when cash changes hands; the default basis under GAAP and the source of the gap between reported profit and cash.
Adjusted EBITDA	EBITDA further adjusted for non-recurring, non-operating, or owner-discretionary items (notably excess owner compensation) to estimate sustainable operating earnings.
Advance rate	The percentage of an eligible collateral pool a lender will lend against; multiplied by the collateral balance to set the borrowing base.

Term	Definition
Affirmative covenant	A covenant requiring the borrower to take a specified action (maintain insurance, pay taxes, deliver financial statements). Contrast with a negative covenant.
Analytical decision tree	The sequential, screen-early framework that orders the whole credit analysis: each stage produces evidence the next stage tests, and quick disqualifying judgments come before expensive analysis.
Articulation	How the three financial statements tie together: net income flows from the income statement into retained earnings on the balance sheet, and the cash flow statement reconciles net income to the change in cash.
Asset-based lending (ABL)	Lending sized to a borrowing base of eligible collateral (typically receivables and inventory) rather than to cash flow.
Audited statements	Financial statements examined by an outside accountant who issues an opinion on fair presentation under GAAP; the highest assurance tier.
Auditor's report	The opinion letter at the front of audited statements stating the scope of the audit and whether the statements are fairly presented; the type of opinion and any change in auditor are credit signals.
Balance sheet	The statement reporting assets, liabilities, and equity at a point in time; it expresses the accounting equation.
Borrower assessment	The comprehensive evaluation of a borrower's business, management, and financial condition for credit purposes.
Borrowing base	The dollar ceiling on a revolving line, computed as eligible collateral (typically receivables and inventory) multiplied by an advance rate.
Borrowing cause	The underlying operating or investing activity that actually creates the need to borrow, such as owner payouts, working-asset build-up, or fixed-asset spending.
Business cash income	The cash a business generates from operations after its own operating cash needs, the UCA equivalent of operating profit expressed in cash.
Business profit	Earnings after charging a market rate for owner labor and capital, so that an owner-managed company is judged as if management were hired at arm's length.
Business profit margin	Business profit expressed as a percentage of sales, the owner-adjusted counterpart to net profit margin.
C-corporation (C-corp)	A corporation taxed as a separate entity, so its earnings are taxed at the corporate level and again as dividends to shareholders. Contrast with a pass-through entity.
Capital structure	The mix of debt and equity (and their relative seniority) funding a business; the lens for judging leverage and cushion.
Cash conversion cycle (CCC)	The number of days between paying for inventory and collecting cash from the resulting sale: $DIO + DSO - DPO$.
Cash flow reconstruction	Rebuilding a borrower's operating cash flow from reported accrual statements to isolate the cash the business actually generates.
Cash flow snapshot	A condensed top-line view of the UCA cash flow statement that shows, at a glance, whether operations generated or consumed cash over the period.
Cash-basis accounting	Recognizing revenue and expenses only when cash is received or paid; simpler than accrual but a poorer picture of economic performance, and not GAAP for most entities.
Cash-flow-based underwriting	Underwriting a credit primarily on the borrower's ability to generate cash flow to service debt, rather than on collateral coverage.
Collateral	Assets pledged to secure a loan that the lender can realize on default; the tertiary source of repayment.

Term	Definition
Compiled statements	Financial statements assembled by an accountant from management's figures with no assurance and no testing; the lowest preparation level. Because management may elect to omit substantially all disclosures, compiled statements commonly carry no footnotes at all, so the note disclosures a lender relies on (covenant compliance, related parties, contingencies) are a feature of reviewed or audited statements, not compiled ones; a lender must corroborate those facts from outside the statements.
Conditions precedent	The requirements a borrower must satisfy before the lender is obligated to fund (completed appraisal, executed documents, equity injection); they convert underwriting assumptions into enforceable closing requirements.
Counterpart account	The balance-sheet account whose period-over-period change explains a cash flow line; the mechanical link that converts accrual changes into cash in the UCA statement.
Covenant	A binding promise in the loan agreement that sets a performance standard or restricts an action, giving the lender an early trigger to act before a loss.
Credit approval package	The complete set of analysis and documentation submitted for a credit decision.
Credit facility	A lending arrangement a bank extends to a borrower (a term loan, line of credit, or commitment) under defined terms.
Credit memorandum	The structured document that presents the credit analysis and recommendation, organized around the fundamental credit issues; the analyst's primary work product and the basis on which a credit decision is made.
Credit professional (practitioner role)	The individual who performs the credit analysis and renders the credit decision. This path uses "credit professional" as the organization-neutral label for that role, because the specific title varies by bank: the analyst who spreads and recommends, the relationship or originating lender, and the underwriter who approves may be one person or three. "Credit analyst," "underwriter," and "loan officer" name specific functions within that role and are used where a particular function is meant; "the lender" refers to the institution or repayment party. The terms are not interchangeable synonyms for the same person.
Credit professionals	The lenders, analysts, and approvers who underwrite and decide credit.
Criticized or classified credit	A credit a bank has downgraded under regulatory rating categories (special mention, substandard, doubtful, loss) because repayment risk has risen.
Cross-default	A provision causing a default on one obligation to trigger default on another, so the lender can act on related exposures together.
Current maturities of long-term debt (CMLTD)	The portion of long-term debt principal scheduled to be repaid within the next twelve months; the principal component of required debt service.
Current ratio	Current assets divided by current liabilities; a liquidity measure of whether near-term assets cover near-term obligations.
Days inventory outstanding (DIO)	Average inventory divided by cost of goods sold, times the days in the period; how long inventory sits before it is sold.
Days payable outstanding (DPO)	Average accounts payable divided by cost of goods sold, times the days in the period; how long the borrower takes to pay suppliers.
Days sales outstanding (DSO)	Average accounts receivable divided by revenue, times the days in the period; how long it takes to collect after a sale.
Debt capacity	The maximum debt a borrower's sustainable cash flow can service; used to test whether a requested facility is repayable.
Debt service	The required periodic payments on debt: interest plus scheduled principal (current maturities of long-term debt).

Term	Definition
Debt service coverage ratio (DSCR)	Cash flow available for debt service divided by total required debt service (interest plus principal); the coverage ratio that, unlike interest coverage, includes principal repayment. Lenders set a minimum (often 1.20x to 1.25x).
Debt/EBITDA	Total debt divided by EBITDA; a leverage measure of how many years of current EBITDA it would take to repay debt.
Debt/equity	Total liabilities (or total debt) divided by shareholders' equity; a leverage measure of how much creditor capital sits behind each unit of owner capital.
Decisive consideration	The single most important factor that, on balance, drives the credit recommendation, isolated so the decision turns on one defensible judgment.
Deferred revenue	A liability recording cash collected before the good or service is delivered; an obligation to perform, not earned revenue.
Deferred tax	A tax effect of temporary differences between book income and taxable income, recorded as a deferred tax asset or liability.
Demonstrated guarantor support	Evidence that a guarantor has actually funded the business when needed, as distinct from a paper promise.
Depreciation	The systematic allocation of a tangible asset's cost over its useful life; the method chosen (straight-line vs accelerated) is a timing judgment that shapes reported earnings.
Description versus analysis	The discipline of separating what is observed (description) from what it means for repayment (analysis); every observation must pass the implications test by connecting to a conclusion about risk.
Double-entry bookkeeping	The system in which every transaction is recorded with equal debits and credits, keeping the accounting equation in balance.
Downtside scenario	A stress test that flexes the assumptions the credit most depends on to see whether the primary source of repayment still services debt.
Earnings quality	The degree to which reported earnings are durable, cash-backed, and free of one-time or manipulated items; low quality means earnings overstate sustainable performance.
EBITDA	Earnings before interest, taxes, depreciation, and amortization; a pre-financing, pre-tax proxy for operating cash earnings that ignores working-capital swings and capital intensity.
EBITDA margin	EBITDA expressed as a percentage of sales.
Eight business drivers	The eight operating levers (sales growth, gross margin, operating margin, three working-asset/liability cycles, fixed-asset spending, and owner payout) that together explain a company's performance and cash needs.
Event of default	A defined condition (missed payment, covenant breach, bankruptcy) that entitles the lender to exercise remedies under the loan agreement.
Excess cash flow	Cash generated beyond what operations, taxes, and required debt service consume; available for discretionary uses or accelerated repayment.
Fair value	A measurement basis reporting an asset or liability at the price it would fetch in an orderly market today; trades reliability for relevance and introduces estimation risk.
FIFO (first-in, first-out)	An inventory cost-flow assumption that charges the oldest costs to cost of goods sold first, leaving newer costs in ending inventory. Contrast with LIFO.
Financial capacity and liquidity	A borrower's or guarantor's ability to absorb stress and meet obligations, measured by earnings, cushion, and readily available resources.

Term	Definition
Financial covenant	A covenant requiring the borrower to maintain a financial metric within a defined limit (a minimum DSCR, a maximum leverage ratio); an early, measurable trigger before a payment default.
Financial reporting reliability	The trustworthiness of financial statements, set by the preparation level (compiled, reviewed, audited) and by how aggressively management has used accounting discretion.
Financial statement analysis	The structured review of a borrower's financial statements to assess profitability, liquidity, leverage, and cash flow.
Financial statement footnotes	The notes accompanying the statements that disclose accounting policies, debt terms, leases, contingencies, related parties, and segments; a lender reads them first for what the face of the statements omits. Footnotes accompany reviewed and audited statements; compiled statements commonly omit them entirely, so a compiled statement discloses nothing beyond the face of the numbers.
Financing gap (days)	The number of days of operating cash the company must fund externally because cash is tied up in receivables and inventory longer than suppliers finance it.
Financing gap (dollars)	The dollar amount of operating assets not financed by operating liabilities, which must be funded by debt or equity; operating assets minus operating liabilities.
Financing gap ratio	The financing gap expressed as a fraction of sales: operating assets minus operating liabilities, divided by sales.
Financing requirement	The total external financing a period demands once business cash income is set against the period's borrowing causes; the size of the funding need.
Fixed asset spending percentage	Capital expenditure on fixed assets expressed as a percentage of sales, a business driver that gauges reinvestment intensity.
Fixed-charge coverage ratio (FCCR)	Earnings available for fixed charges divided by the sum of fixed charges (interest, scheduled principal, leases or rent, and similar mandatory payments); broader than interest coverage or DSCR. An owner-operator variant adds owner distributions to the denominator.
Forms of business organization	The legal structures a business may take (C corporation, S corporation, partnership, LLC, sole proprietorship), each with distinct tax, liability, and owner-payout consequences.
Four fundamental issues of credit	The core questions every credit decision must answer: why the borrower needs the money, how the lender gets repaid, the risks to repayment, and the mitigants.
Free cash flow (FCF)	Operating cash flow minus capital expenditures; the cash a business generates after sustaining its asset base, available to service and repay debt.
GAAP (Generally Accepted Accounting Principles)	The common rulebook for U.S. financial statements, set by the FASB and built on a conceptual framework of qualitative characteristics.
Global cash support	The conservative counterpart to global debt service analysis that counts only the guarantor's genuinely liquid, available resources as backup to the business.
Global contingent obligations	Obligations that become due only if a future event occurs (guarantees, litigation, warranties), aggregated across a borrower and its related parties; not current debt but potential claims on cash.
Global debt service analysis	A combined view of cash flow across the borrower, the guarantor, and all related entities, netting the cash each generates and consumes to test whether the whole related group can service its combined debt.
Going concern	The assumption that a business will continue operating for the foreseeable future; explicit going-concern doubt in the notes or auditor's report is a loud disclosure signal.
Gross margin	Gross profit divided by revenue; a profitability measure of pricing power and production efficiency.

Term	Definition
Gross profit	Revenue less cost of goods sold; the margin available to cover operating expenses, interest, taxes, and profit.
Guaranteed the obligation	The preferred phrasing for a guarantor having legally bound itself to repay the debt if the borrower does not.
Guarantor	A third party, usually the owner, who pledges personal repayment if the business cannot pay; the secondary source of repayment.
Guarantor financial capacity	The recurring personal cash surplus a guarantor can contribute plus readily available liquid assets; how much real support a guarantee carries, distinct from stated net worth.
Guaranty (guarantee)	A guarantor's promise to repay the loan if the borrower does not; its value depends on the guarantor's financial capacity and on whether it is full, limited, payment, or collection in form.
Historical cost	A measurement basis reporting an asset at its original purchase price; reliable and verifiable but can drift far from current value.
Impairment	A write-down recognized when an asset's carrying value exceeds its recoverable amount.
Income statement	The statement reporting revenues, expenses, and net income over a period; the top line of articulation that feeds retained earnings.
Interest coverage ratio	EBIT (or EBITDA) divided by interest expense; a coverage measure of how comfortably operating earnings cover interest, excluding principal.
Inventory	Goods held for sale or the materials and work in process that will become goods for sale; a working asset that ties up cash until sold and collected.
Key man life insurance	A policy on the life of an owner or essential manager, assigned to the lender, that mitigates the loss of a person on whom the business depends.
Key risk indicators (KRIs)	Observable warning signs, financial or qualitative, that commonly precede credit deterioration.
Last recorded value	The most recent actual figure for an account, used as the launching point for a projection rather than a historical average.
Leverage ratio	A solvency measure of how heavily a business is funded by debt relative to its permanent capital; commonly senior liabilities divided by the sum of tangible net worth and subordinated debt.
LIFO (last-in, first-out)	An inventory cost-flow assumption that charges the newest costs to cost of goods sold first; it trades lower reported earnings for tax savings when prices rise. Contrast with FIFO.
LIFO reserve	The footnote-disclosed difference between LIFO inventory and what it would be under FIFO; a lender adds it back to compare a LIFO borrower with FIFO peers.
Limited equity capitalization	An equity base too small relative to debt to absorb losses, leaving the lender exposed earlier in a downturn.
Line of credit	A revolving credit facility typically used to fund working-capital timing; continuous (rather than seasonal) use can be a warning sign.
Liquid personal assets	A guarantor's cash, marketable securities, and other readily salable holdings, the only personal resources reliably available to support the business on short notice.
Liquidation value	The cash recoverable from an asset in a distressed sale; often well below carrying or face value, especially for specialized or work-in-progress assets.

Term	Definition
Loan-to-value ratio (LTV)	The loan amount divided by the collateral's value, expressed as a percentage; it measures collateral cushion but is silent on whether cash flow can service the loan.
Loans to owners	Advances from the business to its owners recorded as receivables; economically an owner payout dressed as an asset.
Management assessment	The qualitative evaluation of the borrower's operational capability and integrity as evidence of repayment capacity.
Management essentials	The six things competent management must do well (set strategy, plan, organize, staff, direct, and control) that a credit analyst evaluates as evidence of repayment capacity.
Management, ownership, and sponsor assessment	The evaluation of the people behind the credit (the standard credit C of 'character'): management competence and the owners' or sponsors' integrity, track record, and commitment.
Matching principle	The requirement that expenses be recognized in the same period as the revenues they help produce; it is what makes a margin trend trustworthy.
Material adverse change (MAC) clause	A covenant or condition allowing the lender to declare default upon a defined adverse change in the borrower's condition; provides flexibility when objective covenants have not yet tripped.
Negative covenant	A covenant prohibiting the borrower from taking a specified action without lender consent (incurring additional debt, selling assets, making distributions beyond a limit).
Negative pledge	A covenant in which the borrower promises not to pledge specified assets to any other lender, preserving the lender's claim without taking a formal lien.
Net income	The bottom-line profit on the income statement after all revenues and expenses; the starting point for retained earnings and the operating section of an indirect cash flow statement.
Net income vs. cash flow divergence	A persistent or widening gap between net income and cash from operations; a signal that earnings are not converting to cash.
Net profit margin	Net income expressed as a percentage of revenue; the bottom-line profitability ratio.
Normalization adjustments	Adjustments that restate reported results to a sustainable, arm's-length basis (notably normalizing owner compensation to a market rate) so profitability reflects the economics of the business.
Off-balance-sheet exposure	Obligations that do not appear as liabilities on the face of the balance sheet (certain guarantees, residual lease and purchase commitments); a lender adds disclosed amounts back to leverage.
Operating cash flow (CFO)	Cash generated by the core business, reported in the operating section of the cash flow statement; the cash that should cover debt service on its own.
Operating expense ratio	Operating expenses (excluding depreciation and amortization) expressed as a percentage of sales; the SG&A-intensity measure. Distinct from operating margin.
Operating margin	Operating income divided by revenue; a profitability measure isolating core operations before interest and taxes.
Outside net worth	A guarantor's equity held outside the business being financed; the standard term for guarantor capacity independent of the borrower entity.
Owner distributions	Payments of cash or property from an entity to its owners (dividends in a C-corp, distributions or withdrawals in a pass-through); they reduce cash retained in the business and are economically an owner payout.

Term	Definition
Owner payout rate	The share of reported profit taken out of the business by its owners, computed as distributions plus withdrawals plus loans to owners, divided by reported net profit.
Pass-through entity	A business (S corporation, partnership, or LLC taxed as one) whose income is taxed to the owners rather than the entity, so owners owe tax on their share whether or not cash was distributed.
Personal cash flow statement	A statement that converts a guarantor's personal income and obligations into the cash genuinely available to support the business, the personal analogue of the UCA statement.
Personal cash revenue	The recurring cash a guarantor actually receives, distinct from taxable income, after stripping non-cash and company-dependent items.
Personal guarantee	An owner's personal commitment to repay business debt if the entity cannot; valued against the owner's tangible net worth net of business-intertwined assets.
Personal living expenses	A guarantor's recurring personal outflows; netted against personal income to find the cash genuinely available to support the business.
Porter's five competitive forces	A framework for judging an industry's profitability and a borrower's competitive position: rivalry, new entrants, substitutes, buyer power, and supplier power.
Preliminary credit assessment	The early go/no-go judgment on whether a credit request merits full underwriting.
Primary source of repayment	Cash generated by the borrower's own ongoing business operations; the first place a lender looks to be repaid.
Projection principles	The rules for a useful projection: spend effort on assumptions, build a single base case, launch from last actual values, and avoid the averages and auto-pilot pitfalls.
Qualified opinion	An auditor's opinion stating the statements are fair except for a specified matter; a step down from an unqualified (clean) opinion and a credit signal.
Quick ratio	Cash and equivalents plus accounts receivable, divided by current liabilities; a stricter liquidity measure that strips out inventory.
Recourse	The lender's ability to pursue a borrower's or guarantor's assets beyond the pledged collateral if the collateral does not cover the debt; a full-recourse loan reaches all assets, a non-recourse loan limits the lender to the collateral.
Related-party transaction	A transaction with an owner, officer, affiliate, or other connected party; disclosed in the notes because non-arm's-length terms can distort the numbers.
Reporting covenant	A covenant requiring the borrower to deliver specified information on a schedule (financial statements, tax returns, borrowing-base or compliance certificates); it gives the lender the data to monitor the other covenants.
Retained earnings	The cumulative net income a company has kept rather than distributed; the roll-forward (beginning balance plus net income minus dividends) ties earnings to equity.
Return on assets (ROA)	Net income divided by average total assets; a test of how much profit the asset base generates.
Return on invested capital (ROIC)	After-tax operating profit divided by invested capital (debt plus equity); compared against the cost of capital to judge whether the business creates value.
Revenue recognition	The accounting judgment of when and how much revenue to record (governed by ASC 606); a frequent site of earnings management.
Reviewed statements	Financial statements on which an accountant performs limited analytical procedures and provides limited assurance; mid-tier preparation quality between compiled and audited.

Term	Definition
S-corporation (S-corp)	A pass-through entity elected under Subchapter S of the Internal Revenue Code; income flows to shareholders via K-1s.
Sales growth	The period-over-period percentage change in sales, the first of the business drivers and a primary cause of working-capital build-up.
Sales-neutral business cash income	Business cash income recomputed as if sales had held flat, isolating operating cash performance from the working-capital swing that sales growth causes.
Schedule K-1	The tax schedule a pass-through entity issues to each owner reporting that owner's share of taxable income, deductions, and distributions; taxable income can differ sharply from cash actually received.
Secondary source of repayment	The guarantor's personal financial capacity, relied on if the business cannot repay.
Single asset borrowing entity (SPE)	An entity formed to hold a single asset and nothing else, isolating that asset's liabilities from other ventures; it simplifies the lender's collateral position but offers no other business to fall back on.
Sources of repayment	The ordered ways a lender expects to be repaid: the borrower's own business cash flow (primary), the guarantor (secondary), and the collateral (tertiary).
Statement of cash flows	The statement reconciling net income to the change in cash across operating, investing, and financing activities over a period.
Subordination	A contractual agreement that ranks one creditor's claim (often owner or affiliate debt) behind the bank's, effectively converting that debt into a capital cushion.
Sustainable competitive advantage	A durable edge that lets a business earn above-average returns over time, arising from cost advantage, differentiation, or focus.
Tangible net worth	Total equity less intangible assets and amounts due from owners or affiliates; the conservative measure of real capital backing the credit.
Tertiary source of repayment	The collateral securing the loan, realized through liquidation if the primary and secondary sources fail.
Traditional cash flow	The shortcut estimate of cash flow as net income plus depreciation; its blind spot is that it ignores cash absorbed by working assets and owner payouts.
Two necessary conditions for business success	The pair of tests a viable borrower must pass over time: an adequate business profit after a market-rate owner adjustment (the profitability test) and enough cash to service debt (the cash-flow test).
UCA cash flow statement	The Uniform Credit Analysis cash flow statement; a standardized lender-oriented format that rebuilds cash flow from the income statement and balance sheet to reveal cash available for debt service.
Working capital	Current assets minus current liabilities; the short-term capital tied up in operating the business, whose swings move both EBITDA's usefulness and operating cash flow.

Key Equations and Formulas

Current ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Quick ratio

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}}{\text{Current Liabilities}}$$

Working capital

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Gross margin

$$\text{Gross Margin} = \frac{\text{Gross Profit}}{\text{Revenue}}$$

Net profit margin

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}}$$

Operating margin

$$\text{Operating Margin} = \frac{\text{Operating Income}}{\text{Revenue}}$$

EBITDA

$$\text{EBITDA} = \text{Net Income} + \text{Interest} + \text{Taxes} + \text{Depreciation} + \text{Amortization}$$

Debt service coverage ratio

$$\text{DSCR} = \frac{\text{Cash Flow Available for Debt Service}}{\text{Interest} + \text{Scheduled Principal}}$$

Variable	Definition
Cash Flow Available for Debt Service	Operating cash earnings available to meet debt obligations (e.g. EBITDA, or UCA cash available for debt service).
Scheduled Principal	Current maturities of long-term debt due in the period.

Fixed-charge coverage ratio

$$\text{FCCR} = \frac{\text{EBITDA} + \text{Rent}}{\text{Interest} + \text{Scheduled Principal} + \text{Rent}}$$

Variable	Definition
Rent	Operating lease and rent payments treated as a fixed charge.

Interest coverage ratio

$$\text{Interest Coverage} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

Debt/EBITDA

$$\text{Debt/EBITDA} = \frac{\text{Total Debt}}{\text{EBITDA}}$$

Debt/equity

$$\text{Debt/Equity} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}}$$

Loan-to-value ratio

$$\text{LTV} = \frac{\text{Loan Amount}}{\text{Collateral Value}}$$

Days sales outstanding

$$\text{DSO} = \frac{\text{Accounts Receivable}}{\text{Revenue}} \times \text{Days in Period}$$

Days payable outstanding

$$\text{DPO} = \frac{\text{Accounts Payable}}{\text{Cost of Goods Sold}} \times \text{Days in Period}$$

Days inventory outstanding

$$\text{DIO} = \frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times \text{Days in Period}$$

Cash conversion cycle

$$\text{CCC} = \text{DIO} + \text{DSO} - \text{DPO}$$

Free cash flow

$$\text{FCF} = \text{Operating Cash Flow} - \text{Capital Expenditures}$$

Sales Growth

$$\text{Sales Growth} = \frac{\text{current period sales} - \text{prior period sales}}{\text{prior period sales}}$$

Variable	Definition
current period sales	Net sales for the current period
prior period sales	Net sales for the immediately preceding period

The first business driver. Rapid sales growth is a common, often hidden, borrowing cause because it absorbs cash into receivables and inventory before the cash returns.

Business Profit Margin

$$\text{Business Profit Margin} = \frac{\text{business profit}}{\text{sales}}$$

Variable	Definition
business profit	Net income restated after charging a market rate for owner labor and capital
sales	Net sales for the period

Strips owner-compensation distortion so an owner-managed company is judged as if management were hired at arm's length.

Accounts Receivable Days

$$\text{Accounts Receivable Days} = \frac{\text{accounts receivable}}{\text{sales}} \times 365$$

Variable	Definition
accounts receivable	Trade receivables on the balance sheet
sales	Net sales for the period

How long, on average, sales remain uncollected. Rising AR days is a classic borrowing cause and a collection or credit-quality warning.

Inventory Days

$$\text{Inventory Days} = \frac{\text{inventory}}{\text{cost of sales excluding depreciation}} \times 365$$

Variable	Definition
inventory	Inventory on the balance sheet
cost of sales excluding depreciation	Cost of goods sold with any depreciation in cost of sales removed

How long inventory sits before it is sold. Rising inventory days ties up cash and can signal obsolescence or slackening demand.

Accounts Payable Days

$$\text{Accounts Payable Days} = \frac{\text{accounts payable}}{\text{cost of sales excluding depreciation}} \times 365$$

Variable	Definition
accounts payable	Trade payables on the balance sheet
cost of sales excluding depreciation	Cost of goods sold with any depreciation in cost of sales removed

How long the business takes to pay suppliers. Lengthening payable days is supplier-provided financing but, taken too far, signals a cash squeeze.

Leverage Ratio

$$\text{Leverage Ratio} = \frac{\text{all senior liabilities}}{\text{tangible net worth} + \text{subordinated debt}}$$

Variable	Definition
all senior liabilities	Total liabilities ranking ahead of subordinated debt
tangible net worth	Total equity less intangibles and amounts due from owners or affiliates
subordinated debt	Owner or affiliate debt contractually ranked behind the bank, treated as quasi-capital

The core solvency measure. Subordinated debt is added to the denominator because, once subordinated, it cushions senior creditors like equity.

Owner Payout Rate

$$\text{Owner Payout Rate} = \frac{\text{distributions} + \text{withdrawals} + \text{loans to owners}}{\text{reported net profit}}$$

Variable	Definition
distributions	Profit paid out to owners of a pass-through entity
withdrawals	Cash owners remove from an unincorporated business
loans to owners	Advances to owners booked as receivables
reported net profit	Net profit as reported on the income statement

Reveals how much profit leaves the business through owner payouts. A rate near or above one means the owners are extracting essentially all reported earnings, leaving nothing to service debt.

EBITDA to Debt Service

$$\text{EBITDA to Debt Service (coverage)} = \frac{\text{EBITDA}}{\text{interest expense} + \text{prior-year current maturities of long-term debt}}$$

Variable	Definition
EBITDA	Earnings before interest, taxes, depreciation, and amortization
interest expense	Total interest on debt for the period
prior-year current maturities of long-term debt	The CMLTD figure from the prior year's balance sheet, the principal due in the current period

The headline coverage test of whether operating earnings cover required debt service. Using prior-year CMLTD captures the principal actually scheduled to come due in the current period.

Fixed Asset Spending Percentage

$$\text{Fixed Asset Spending Percentage} = \frac{\text{capital expenditure}}{\text{sales}}$$

Variable	Definition
capital expenditure	Cash spent acquiring fixed assets in the period
sales	Net sales for the period

Gauges reinvestment intensity. Heavy fixed-asset spending is a common borrowing cause and must be matched to a sensibly termed facility, not a revolving line.

Financing Gap (Dollars)

$$\text{Financing Gap Dollars} = \text{operating assets} - \text{operating liabilities}$$

Variable	Definition
operating assets	Receivables, inventory, and other current operating assets
operating liabilities	Payables and other current operating liabilities, excluding interest-bearing debt

The dollar amount of the operating cycle not financed by suppliers, which debt or equity must fund. The wider the gap, the larger the structural borrowing need.

Financing Gap (Days)

$$\text{Financing Gap Days} = \text{accounts receivable days} + \text{inventory days} - \text{accounts payable days}$$

Variable	Definition
accounts receivable days	Days of sales tied up in receivables
inventory days	Days of cost of sales held in inventory
accounts payable days	Days of supplier financing on cost of sales

The number of days the operating cycle must be externally funded. A positive gap means cash leaves before it returns, which is the structural reason a growing distributor or manufacturer borrows.

Financing Gap Ratio

$$\text{Financing Gap Ratio} = \frac{\text{operating assets} - \text{operating liabilities}}{\text{sales}}$$

Variable	Definition
operating assets	Receivables, inventory, and other current operating assets
operating liabilities	Payables and other current operating liabilities, excluding interest-bearing debt
sales	Net sales for the period

Scales the dollar financing gap by sales so it can be set as a covenant ceiling. Holding the ratio under a cap keeps working-asset growth from outrunning the cash the business generates.

Debt Service Coverage Covenant

$$\text{Debt Service Coverage Covenant} = \frac{\text{payout-adjusted business profit}}{\text{scheduled debt service}}$$

Variable	Definition
payout-adjusted business profit	Business profit after subtracting permitted owner payouts, the cash genuinely retained to service debt
scheduled debt service	Contractual interest plus principal due in the period

The maintenance covenant that protects the primary source of repayment. Setting the floor on payout-adjusted profit (rather than raw earnings) enforces the second necessary condition even when owners draw heavily.

Global Debt Service Coverage

$$\text{Global Debt Service Coverage} = \frac{\text{business cash flow available for debt service} + \text{guarantor cash flow available for debt service}}{\text{combined debt service}}$$

Variable	Definition
business cash flow available for debt service	The borrower's cash earnings after operating needs, before debt service
guarantor cash flow available for debt service	The guarantor's personal cash available after personal obligations

Variable	Definition
combined debt service	Total scheduled debt service of the business and the guarantor

Tests whether the business and its guarantor together cover all of their debt service. Use global cash support (liquid assets only) as the conservative cross-check, since pooling cash flows can overstate true backup.

Key Concepts and Frameworks

The sources-of-repayment hierarchy

Every credit is analyzed against an ordered set of repayment sources. The primary source is the borrower's own business cash flow; the secondary source is the guarantor's financial capacity; the tertiary source is the collateral, realized through liquidation. The order reflects priority and reliability, not convenience: a lender underwrites first to the primary source and treats the secondary and tertiary sources as fallbacks, not substitutes for a viable business.

The two necessary conditions (profitability and cash flow)

A viable borrower must pass two independent tests over time. The profitability test asks whether the business earns an economic profit after normalizing owner compensation to a market rate. The cash-flow test asks whether the business generates enough cash to service its debt. Both are necessary: profit without cash (earnings tied up in working assets) and cash without profit (cash from shrinking the business) each fail the credit.

Description versus analysis (the implications test)

Credit writing distinguishes observation from interpretation. Description states a fact; analysis explains what the fact means for repayment. Every observation in a credit memorandum should pass the implications test, connecting to a conclusion about risk or a mitigant, so the recommendation rests on reasoning rather than a recitation of data.

The Four Fundamental Issues

Every credit decision reduces to four questions: why the borrower needs the money, how the lender gets repaid, what the risks to repayment are, and what mitigates those risks. The four issues frame the entire analysis and, at the end, the credit memorandum addresses only these four and omits everything else. Keeping them in view prevents the analyst from drifting into description that does not bear on repayment.

The Analytical Decision Tree

The analysis is a sequential, screen-early process rather than a checklist run in parallel. Each stage produces evidence the next stage tests, and quick, potentially disqualifying judgments (management integrity, competitive position) come before expensive financial work. A borrower that fails an early screen never reaches the cash flow analysis, which conserves analytical effort and mirrors how seasoned lenders actually decide.

The Three Sources of Sustainable Competitive Advantage

A durable edge that earns above-average returns comes from one of three sources: a cost advantage (producing at lower cost than rivals), differentiation (offering something buyers value enough to pay a premium for), or focus (serving a narrow niche better than broad competitors can). A borrower with none of these is a price-taker whose margins erode whenever the industry softens, which directly threatens the primary source of repayment.

The Six Management Essentials

Competent management must do six things well: set strategy, plan, organize, staff, direct, and control. A credit analyst evaluates each as evidence of repayment capacity, because the people running the business ultimately determine whether the projected

cash flow materializes. Integrity sits above the six as a gate: a capable management team that lacks integrity is a decline, not a structuring problem.

The Eight Business Drivers

Eight operating levers explain a company's performance and cash needs: sales growth, gross margin, operating margin, the receivable, inventory, and payable cycles, fixed-asset spending, and owner payout. They organize the ratio analysis, become the levers of the projection, and trace directly to the borrowing cause. Analyzing the drivers, rather than ratios in isolation, keeps the analysis tied to how the business actually consumes and produces cash.

The UCA Cash Flow Statement

The uniform credit analysis cash flow statement rebuilds cash flow from the income statement and balance sheet in a standardized order, using counterpart accounts to convert each accrual change into cash. Unlike traditional cash flow (net income plus depreciation), it exposes the cash absorbed by working-asset build-up and owner payouts, which is what reveals the true borrowing cause. It is the analytical heart of the path, reused on the guarantor's personal statement in Course 5.

Porter's Five Competitive Forces

This framework judges an industry's profitability and a borrower's position within it through five forces: rivalry among existing competitors, the threat of new entrants, the threat of substitutes, the bargaining power of buyers, and the bargaining power of suppliers. Strong forces compress margins for everyone in the industry; the analyst uses the framework to test whether a borrower's competitive advantage is durable enough to survive them, which feeds directly into the projection assumptions.

The Projection Principles

A useful projection follows four rules. Spend effort on the assumptions, not the spreadsheet mechanics, because the assumptions are where the judgment lives. Build a single base case rather than a spread of equally weighted scenarios. Launch from last actual values, changing one only when there is a compelling reason. Avoid two pitfalls: the averages pitfall (projecting off multi-year averages that wash out the current trajectory) and the auto-pilot pitfall (rolling prior growth rates forward without re-examining the drivers).

Global Debt Service vs. Cash Support

Global debt service analysis pools the cash flows of the business and its guarantor as one source. The trap is that it can double-count or overstate support, because a guarantor whose income depends on the same company adds no real backup if that company falters. Global cash support is the conservative counterpart: it counts only the guarantor's genuinely liquid, independent resources. The analyst leads with global cash support and treats global debt service analysis as the optimistic bound.

Covenant Design

Covenants are the lender's minimum performance standards and early triggers. Three principles govern good design. Match the covenant to the risk: each covenant should protect an identified source of repayment against a specific, traced risk. Less is more: a few enforceable covenants tied to real risks beat a long list that no one monitors. Monitor and enforce: a covenant the lender does not track or act on provides no protection and trains the borrower to ignore the agreement. Primary-source covenants (debt-service coverage, the financing-gap ratio) protect the primary source of repayment; secondary and tertiary covenants (guarantees, liquid-asset minimums, leverage caps, borrowing base, negative pledge) protect the second and third.

Non-Financial Key Risk Indicators

Non-financial key risk indicators are qualitative warning signs that typically precede financial deterioration: management turnover, customer or supplier concentration, litigation, loss of a key person, industry disruption, and similar signals. They cannot be read off the statements and require direct borrower contact to assess. The analyst's job is to trace each key risk indicator to its likely impact on profit and cash flow, decide which can be mitigated, and structure covenants or collateral against the rest.

The Credit Memorandum Structure

The credit memorandum presents the recommendation in a standard anatomy: an executive summary followed by supporting detail, with every section mapped to one of the four fundamental issues and anything that does not bear on them omitted. It states the most persuasive findings for and against the credit, then reduces the decision to a single decisive consideration so the committee can see what the call really turns on. It closes with the credit decision and its conditions. Course 1 introduces it and Course 7 reassembles the full analysis into it, bookending the path by design.

Suggested Prerequisites

- Accrual income statement: The learner should be able to read a commercial income statement and understand revenue recognition, cost of goods sold, gross profit, operating expenses, depreciation, interest, and net income under accrual accounting.
- Commercial balance sheet: Familiarity with current and long-term asset and liability classification, equity, and how the balance sheet articulates with the income statement.
- Associated terminology: Comfort with standard commercial-lending and accounting terms (working capital, receivables, payables, inventory, principal, and interest) at the level assumed by the path's target audience of credit analysts and underwriters.
- Basic ratio arithmetic: The ability to compute and interpret a simple ratio and a percentage-of-sales figure, since the path builds the credit-specific ratios on top of this.

Further Reading

- Standard commercial bank credit-training curricula on C&I analysis: Cover the same analytical decision tree from qualitative-data screen through credit memorandum and serve as a companion to this path's sequence.
- Michael E. Porter, "Competitive Strategy" and "Competitive Advantage": The primary sources for the five competitive forces and the cost, differentiation, and focus sources of advantage applied in management assessment.
- A current GAAP reference on accrual accounting and statement presentation: Useful for grounding the cash-versus-accrual conversion that the UCA cash flow statement performs.
- IRS guidance and instructions for Form 1040 and Schedules A through E and K-1: Relevant to the personal-tax-return reading taught in the guarantor deep-dive course.
- An accountant's guide to compiled, reviewed, and audited financial statements: Expands the preparation-level distinctions that drive financial reporting reliability.