LM03 · FINANCIAL STATEMENT ANALYSIS · CFA LEVEL I

Analyzing Balance Sheets

What the company owns, owes, and the residual claim — at a point in time

What This Reading Covers

The balance sheet reports a firm's **financial position** at a point in time. You will learn the **elements** (A, L, E) and the accounting equation, **presentation formats** (classified vs. liquidity-based), the **measurement bases** for current and non-current assets/liabilities, the **components of shareholders' equity**, and how to use **common-size analysis** plus **liquidity and solvency ratios**.

Learning Outcome Statements

LOS a Describe the elements of the balance sheet: assets, liabilities, and equity

LOS b Describe uses and limitations of the balance sheet in financial analysis

LOS c Describe alternative formats of balance sheet presentation

LOS d Contrast current and non-current assets, and current and non-current liabilities

LOS e Describe different types of assets and liabilities and the measurement bases of each

LOS f Describe the components of shareholders' equity

LOS g Analyze balance sheets using common-size analysis, liquidity ratios, and solvency ratios

Exam Tip: The balance sheet is a **mixed model** — items sit at historical cost, adjusted cost, or fair value. That limits direct comparisons, so examiners love questions about *measurement basis* and the gain/loss routing (NI vs. OCI) for marketable securities.

LOS A · ELEMENTS OF THE BALANCE SHEET

The Accounting Equation: A = L + E

BALANCE SHEET STRUCTURE — ASSETS EQUAL LIABILITIES PLUS EQUITY

ASSETS (A)
what a company owns

Current assets
Cash & equivalents
Marketable securities
Trade receivables
Inventories

Non-current assets
PP&E · Intangibles
Investment property
Deferred tax assets

=

LIABILITIES (L)
what a company owes

Current	Non-current
AP · Accrued exp.	Long-term debt
Short-term debt	Pension liabilities
Deferred revenue	Deferred tax liab.

+

EQUITY (E) = A − L
residual claim · book value
Contributed capital · RE · Treasury · AOCI · NCI

ASSETS

What a company owns. Resources owned by a company as a result of past events, from which future economic benefits are expected to flow.

LIABILITIES

What a company owes. Obligations of a company as a result of past events, from which future outflows of economic benefits are expected.

EQUITY

Assets − Liabilities — the residual claim. Equity = **book value** and generally **does NOT equal** market value or intrinsic value.

Recognition Criteria

For an item to be recognized as an asset or liability: (1) a future economic benefit flowing to or from the entity must be **probable**, and (2) the item must have a cost or value that can be **measured reliably**.

Balance-Sheet Identity

Assets are financed by Debt or Equity — every dollar of asset is funded by a creditor claim (L) or an owner claim (E).

$$A = L + E$$

LOS B · USES & LIMITATIONS

What the Balance Sheet Does (and Does Not) Tell You

USES

The balance sheet is useful for assessing the entity's:

1. **Liquidity** — ability to meet short-term liabilities.
2. **Solvency** — ability to meet long-term debt obligations (requires equity > 0).

LIMITATIONS

1. It is a snapshot at a **point in time** — values change each day but are only reported periodically.
2. It is a **mixed model**: items are carried at historical cost, adjusted historical cost, or fair value (the latter only at a point in time).
3. Many drivers of future cash flows are **not on the B/S** — the income statement and cash-flow statement are far more useful for valuation.

The Three Measurement Bases on a Balance Sheet

(1) **Historical cost** — what was originally paid. (2) **Adjusted historical cost** — cost less accumulated depreciation / amortization / impairment. (3) **Fair value** — the exit price, but only at one point in time.

Exam Tip: Memorize the one-liner: "Equity is **book value** and is not market value or intrinsic value." That's why the B/S alone is inadequate for valuation.

LOS C, D · PRESENTATION FORMATS & CURRENT/NON-CURRENT

Classified vs. Liquidity-Based Presentation

CLASSIFIED BALANCE SHEET

Required by both IFRS and U.S. GAAP. Separates assets and liabilities into **current** and **non-current**.

Current asset: expected to be sold, used up, or converted to cash within one operating cycle (typically 1 year, unless a longer cycle is justified) — the cash-to-cash cycle.

Non-current asset: the infrastructure from which the company operates — not expected to convert to cash within a year.

LIQUIDITY-BASED PRESENTATION

Permitted under IFRS only, if it is *more relevant or informative* than classified. All assets and liabilities are presented in order of liquidity (most → least liquid).

Common for banks and other financial institutions whose operating cycle does not neatly fit the current / non-current split.

Current vs. Non-Current — Liabilities

CATEGORY	DEFINITION	EXAMPLES
Current liabilities	Expected to be settled within one operating cycle (1 year unless longer is justified)	Accounts payable, accrued expenses, short-term debt (notes payable, bank loans), current portion of LTD, deferred revenue, dividends payable
Non-current liabilities	All others — due after more than one year	Long-term notes and bonds (at PV of future cash payments), capital/finance leases, pension liabilities, deferred tax liabilities

Working Capital

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

A measure of the entity's ability to meet liabilities as they fall due.

Ordering Within a Classified Balance Sheet

Assets	From most to least liquid
Liabilities	In the order of when they are due

Stockholders' Equity	Contributed capital first, then retained earnings

LOS E · CURRENT ASSETS & MEASUREMENT BASES

Current Assets — Line by Line

LINE ITEM	DEFINITION	MEASUREMENT BASIS
Cash & cash equivalents	Highly liquid, short-term investments (maturity < 90 days)	Financial assets — reported at **amortized cost** or **fair value** (exit price)
Marketable securities	Equity/debt securities that trade in public markets	Financial assets — see the "three categories" on the next step
Trade receivables (AR)	Amounts owed by customers for goods/services already delivered	Financial assets — at **net realizable value** = amount owed less bad-debts estimate
Inventories	Goods held for sale, WIP, and raw materials	At the **lower of cost or net realizable value** (IFRS); LIFO/retail firms use lower of cost or market (U.S. GAAP)

Trade Receivables — The Allowance for Doubtful Accounts

AR is reported **net** of the **Allowance for Doubtful Accounts** (a "contra" account).

Net AR	The amount reported on the B/S (gross AR − allowance)
Additions to allowance	Become **Bad Debts Expense** on the income statement
Allowance amount	Reported in the **Notes**
% uncollectible	Affected by: changes in credit terms · quality of customers · changes in risk-management policies · changes in estimates
Aging	Refers to the length of time a receivable has been outstanding
Concentration of credit risk	Reported in the Notes

Inventories — Key Reminders from Cost-Flow

Under **IFRS**, inventory is reported at the **lower of cost or net realizable value** (NRV = expected sales price less selling costs and completion costs). Write-downs hit the income statement; write-ups are permitted but only to the extent of a previous write-down.

Under **U.S. GAAP**, LIFO or retail firms use **lower of cost or market** (market ≈ replacement cost, capped by NRV and floored by NRV − normal profit margin). **No subsequent write-up** is allowed under U.S. GAAP.

Commodity producers/dealers may report inventory **above historical cost** at quoted market price under both standards.

Exam Tip: Under LIFO (rising prices) inventory on the B/S is *lower*, so current ratio and working capital are lower than under FIFO. The quick ratio is *unaffected* by inventory method (inventory is excluded from its numerator).

LOS E · MARKETABLE SECURITIES · IFRS & U.S. GAAP

Accounting for Marketable Securities

Financial assets (investment securities, derivatives, loans, receivables) fall into **three categories**. The category determines where unrealized gains and losses are routed — **through Net Income** or **through OCI** — and whether the security is carried at fair value or (amortized) cost.

IFRS CATEGORY	U.S. GAAP EQUIVALENT	MEASUREMENT	UNREALIZED G/L ROUTE
Fair value through profit & loss (FVTPL)	**Trading securities**	Fair value	Income statement (NI)
Fair value through OCI (FVOCI)	**Available-for-sale (AFS)**	Fair value	Other comprehensive income (OCI) → flows to AOCI in equity
Amortized cost	**Held-to-maturity (HTM)**	(Amortized) historical cost	Not recorded anywhere (unrealized G/L not recognized)

What Goes in Each Bucket

FVTPL / TRADING

- Debt acquired with intent to sell in near term
- Equity securities (unless FVOCI election is made at purchase)
- Derivatives
- Any security, if this treatment is elected at time of purchase

FVOCI / AFS

- Debt acquired with intent to *collect interest* but possibly sell before maturity
- Equity — only if FVOCI election is made at time of purchase (IFRS)

AMORTIZED COST / HTM

- Debt acquired with intent to **hold until maturity**
- Loans and notes receivable
- Unlisted equity securities where fair value cannot be reliably determined

IFRS Irrevocable Elections

Under IFRS, firms may make an **irrevocable choice at time of purchase** to account for equity securities as FVOCI. IFRS firms can also irrevocably elect to carry any financial asset at FVTPL. These elections are **not available under U.S. GAAP**.

Exam Tip: Key exam trap: a *reclassification* or change in intent only affects the *prospective* measurement category. Know where unrealized gains/losses land: **FVTPL → NI**, **FVOCI → OCI (AOCI on B/S)**, **Amortized cost → nowhere**.

QUIZ 1 · CHECKPOINT

Test Your Understanding: Elements, Formats & Current Assets

Q1. Which of the following is *most accurate* regarding the balance sheet?

Q2. A liquidity-based balance-sheet presentation is:

Q3. A portfolio of equity securities is classified as **trading** (FVTPL). Unrealized gains on these securities during the period:

Q4. Trade receivables are reported on the balance sheet at:

LOS E · NON-CURRENT ASSETS

Non-Current Assets: PP&E, Intangibles, Investment Property

1 · Property, Plant & Equipment (PP&E)

Tangible assets used in operations. Two accounting models are available.

COST MODEL (IFRS & U.S. GAAP)

Historical cost = purchase price + delivery + installation.

Accum. Dep.	Deducted each period except on land
Net PP&E	Presented as a net amount
Impairment	Loss if recoverable amount < carrying value → hits IS. **Reversible under IFRS**; **not reversible under U.S. GAAP**

REVALUATION MODEL (IFRS ONLY)

PP&E is carried at **fair value on the revaluation date** less subsequent accumulated depreciation/impairment.

Upward revaluations are generally routed to **OCI / revaluation surplus**; downward revaluations hit the income statement (unless reversing a prior revaluation surplus).

Key Definition — Recoverable Amount

Recoverable amount = the *higher* of (Fair value − costs to sell) and (Value in use).

· **Fair value − costs to sell** = amount obtainable in an arm's-length transaction.

· **Value in use** = present value of future cash flows from continued use and disposal.

2 · Intangible Assets

Identifiable non-monetary assets that lack physical substance (e.g., patents, trademarks, copyrights, franchises).

Finite useful life	Amortized on a systematic basis over best estimate of useful life; reviewed at least annually. Impairment principles same as for PP&E.
Indefinite useful life	**Not amortized.** Instead, tested for impairment at least annually.
Purchased intangibles	Reported at historical cost less accumulated amortization.
Internally developed — IFRS	**Research expensed**; **development capitalized** if technical feasibility and intent to sell are established.
Internally developed — U.S. GAAP	**Both R&D expensed** (with narrow software exceptions).

Always expensed	Start-up and training costs · administrative overhead · advertising & promotion · relocation and reorganization · termination costs.

Goodwill (arises from acquisitions)

When one company is purchased by another, any excess of the purchase price over the **fair value of identifiable net assets** is recognized on the acquirer's balance sheet as **goodwill** (an unidentifiable intangible).

ACCOUNTING GOODWILL

$$\text{Goodwill} = \text{Purchase Price} - \text{FV of Identifiable Net Assets Acquired}$$

Under both IFRS and U.S. GAAP, accounting goodwill is **capitalized**, **not amortized**, and **tested for impairment at least annually**. Internally generated goodwill is **expensed** — only acquired goodwill appears on the B/S. Economic goodwill (expected future performance) is distinct from accounting goodwill.

3 · Investment Property (IFRS only)

Non-operating property held to earn rentals or for capital appreciation (not used in producing goods/services or for administrative purposes).

Model choice	**Cost model** or **fair-value model** — must be applied consistently to the whole class.
Fair-value changes	Period-to-period changes = **gain/loss on the income statement**.

4 · Deferred Tax Assets (DTAs)

Arise when income tax payable (tax purposes) is *more* than income tax expense (reporting purposes) — the reversal of a **temporary difference** will reduce tax in future periods, giving the DTA value today.

LOS E · LIABILITIES

Current & Non-Current Liabilities

Current Liabilities

ITEM	DESCRIPTION
Trade payables (AP)	Owed to vendors for the purchase of goods/services
Bank loans, notes payable, current portion of LTD	Short-term financial liabilities
Accrued expenses	Expenses incurred but not yet paid (wages, rent, taxes, interest)
Deferred income / Unearned revenue	Payment for goods/services received *before* delivery is made
Provisions, dividends payable, deferred tax	Other current obligations

Non-Current Liabilities

ITEM	MEASUREMENT / KEY POINT
Long-term financial liabilities (bank loans, notes payable, bonds payable, some derivatives)	Reported at **amortized cost**. Any premium or discount is amortized through interest expense so the carrying value moves toward face value at maturity.
Financial liabilities at fair value	Held-for-trading liabilities (e.g., a short stock position — may be short-term), derivative liabilities, and non-derivative liabilities hedged by derivatives.
Pension liabilities (defined-benefit plans)	Recorded when plan is **underfunded** (FV of plan assets < pension obligation). Net pension asset/liability = "funded status." Defined-contribution plans create **no future liability**.
Deferred tax liabilities (DTLs)	Arise from **temporary timing differences** between taxable income and reported income — income taxes payable in future periods.
Capital / finance leases, provisions	Long-term obligations reported at present value of future payments.

Preferred Shares — Classification Depends on Terms

Based on characteristics, preferred shares may be classified as: **Equity** (perpetual, non-redeemable) *or* **Debt** (mandatory redemption at a fixed amount at a future date). Read the terms — the classification can move preferred stock from equity to non-current liabilities.

LOS F · COMPONENTS OF SHAREHOLDERS' EQUITY

Shareholders' Equity — Six Components

1 · CAPITAL CONTRIBUTED BY OWNERS

Common stock issued — carried at **par value** plus **additional paid-in capital** (amount above par).

Authorized	# of shares the firm is allowed to sell
Issued	# of shares actually sold
Outstanding	Issued − repurchased (treasury stock)

2 · PREFERRED SHARES

May be classified as **equity** (perpetual, non-redeemable) or **debt** (mandatory redemption at a fixed amount at a future date) depending on terms.

3 · TREASURY SHARES

Shares repurchased but **not cancelled**. *Non-voting*, *no dividends*, may be resold (**no gain/loss** on resale). Reduces shareholders' equity by the $ amount of repurchase.

Done when (a) shares are undervalued, (b) to fulfill employee options, (c) to limit dilution.

4 · RETAINED EARNINGS

Cumulative amount of earnings *not* paid out to owners (as dividends). Updated each period by net income − dividends declared.

5 · ACCUMULATED OCI (AOCI)

Cumulative gains/losses **not recognized in the income statement** — e.g., FVOCI/AFS unrealized G/L, revaluation surpluses, FX translation adjustments, certain pension remeasurements.

$$AOCI_t = AOCI_{t-1} + OCI_t$$

6 · NON-CONTROLLING INTEREST (NCI)

Also called *minority interest*. The equity interests of minority shareholders in subsidiaries that have been consolidated but are **not wholly owned** by the parent.

Statement of Changes in Equity

Itemizes changes in each equity account over a period.

IFRS

Requires: total comprehensive income · retrospective effect of policy changes · capital transactions/distributions with owners · component carrying amounts

U.S. GAAP

Requires a reconciliation of each equity account on the balance sheet.

Exam Tip: When a firm repurchases treasury stock, total SE falls by the repurchase cost (equity = A − L). Resales of treasury stock do not produce P&L — any difference between resale price and repurchase cost flows through additional paid-in capital (or retained earnings).

QUIZ 2 · CHECKPOINT

Test Your Understanding: PP&E, Intangibles, Liabilities & Equity

Q5. Under IFRS, an intangible asset with an **indefinite useful life** is most appropriately:

Q6. A firm acquires another company for $500millionwhenthefairvalueofthetarget'sidentifiablenetassetsis$380 million. On the acquirer's balance sheet:

Q7. A firm repurchases $10 million of its own shares (treasury stock). The *most likely* effect is to:

Q8. Long-term bonds payable issued at a discount are *most likely* reported on the balance sheet at:

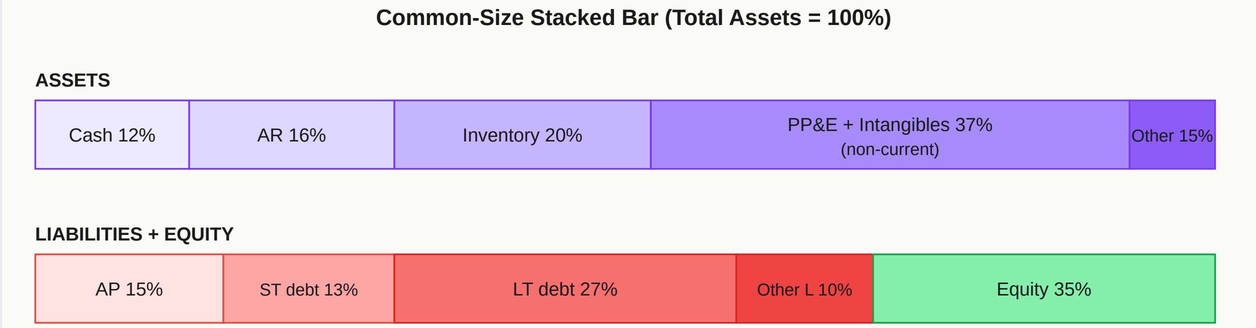
LOS G · COMMON-SIZE ANALYSIS

Common-Size Balance Sheet

In a **vertical common-size balance sheet**, every line item is expressed as a **percentage of total assets**. This puts firms of different sizes on a common footing and allows elements to be compared over time (time-series) and across peers/industries (cross-sectional).

Illustrative Common-Size Balance Sheet

EACH LINE ÷ TOTAL ASSETS (= 100%)



Use vertical common-size to spot asset-mix shifts and capital-structure changes over time — and to compare firms of different sizes on a common denominator.

Illustrative percentages for demonstration purposes only.

What Common-Size Analysis Reveals

1. **Asset-mix shifts** — is the firm becoming more capital-intensive? Is inventory growing as a share of assets?
2. **Capital-structure changes** — is the firm relying more on debt or equity?
3. **Trend analysis** — track each element's percentage of total assets over multiple periods.
4. **Cross-sectional comparison** — benchmark against peers, industry, or sector data regardless of firm size.

LOS G · LIQUIDITY & SOLVENCY RATIOS

Balance-Sheet Ratios

> **Liquidity ratios** measure a firm's ability to satisfy *short-term* obligations. Higher = more likely the firm will pay its short-term bills. **Solvency ratios** measure a firm's ability to satisfy *long-term* obligations. Higher = greater financial leverage and greater financial risk.

Liquidity Ratios (least to most conservative)

RATIO	FORMULA	WHAT IT ADDS / EXCLUDES
Current ratio (most widely used)	`Current assets / Current liabilities`	Broadest — includes all current assets
Quick ratio (acid test) more conservative	`(Cash + Marketable securities + Receivables) / Current liabilities`	**Excludes inventories** and less-liquid current assets
Cash ratio most conservative	`(Cash + Marketable securities) / Current liabilities`	Excludes receivables too

Solvency Ratios

RATIO	FORMULA	INTERPRETATION
Long-term debt to equity	`Total long-term debt / Total equity`	Long-term financing sources relative to the equity base
Debt to equity (D/E)	`Total debt / Total equity`	Total debt relative to the equity base
Total debt to assets (D/A)	`Total debt / Total assets`	Extent to which assets are financed by creditors

Financial leverage ratio	`Total assets / Total equity`	Variation of D/E; component of the DuPont ROE decomposition

Ratio Ladder — Illustration

THREE LIQUIDITY RATIOS — PROGRESSIVELY STRICTER NUMERATORS

CURRENT RATIO

Cash + Mkt Sec + AR

+

Inventory + Other CA Current Liabilities broadest QUICK RATIO Cash + Mkt Sec + Receivables Current Liabilities excludes inventory CASH RATIO Cash + Marketable Securities Current Liabilities most conservative

Exam Tip: Under LIFO vs. FIFO (rising prices): current ratio is *lower under LIFO* (inventory is lower), but the **quick ratio is unaffected** (inventory excluded). The debt-to-equity and debt-to-assets ratios are **higher under LIFO** (SE is lower because inventory and hence total assets are lower).

QUIZ 3 · CHECKPOINT

Test Your Understanding: Common-Size, Liquidity & Solvency

Q9. Which ratio is the *most conservative* measure of liquidity?

Q10. A firm has Total Assets of $500million,TotalDebtof$200 million, and Total Equity of $250 million. Its **financial leverage ratio** is *closest to*:

Q11. In a vertical common-size balance sheet, each line item is expressed as a percentage of:

Q12. A debt security that the firm intends to *collect interest on but may sell before maturity* is classified under IFRS as:

MODULE COMPLETE

Your Scorecard

0 / 12

LM03 Key Takeaways — Exam-Ready Cheat Sheet

Elements, Uses, Formats

1. **A = L + E.** Assets are resources owned (future economic benefit probable, reliably measurable); liabilities are obligations; equity is residual (A − L) and equals *book value*, not market or intrinsic value.
2. **Uses:** assess liquidity and solvency. **Limitations:** point-in-time snapshot · mixed measurement model (historical cost / adjusted cost / fair value) · omits drivers of future cash flows.
3. **Classified B/S** (current/non-current split) is required under IFRS & U.S. GAAP. **Liquidity-based** presentation is permitted under IFRS only if more relevant/informative. Working capital = CA − CL.

Assets & Marketable Securities

4. **Current assets:** cash & equivalents (< 90 days) · marketable securities · trade receivables (at NRV, net of allowance) · inventories (lower of cost or NRV under IFRS; lower of cost or market for LIFO/retail under U.S. GAAP — no write-ups under U.S. GAAP).
5. **Three marketable-security categories:** FVTPL (trading) → unrealized G/L in NI · FVOCI (AFS) → unrealized G/L in OCI → AOCI · Amortized cost (HTM) → unrealized G/L not recorded. IFRS allows irrevocable FVOCI/FVTPL elections.
6. **PP&E:** cost model (both) or revaluation model (IFRS). Impairment = carrying > recoverable amount (= higher of FV − costs to sell and value in use); reversible under IFRS, not U.S. GAAP.
7. **Intangibles:** finite-life amortized; indefinite-life tested for impairment. IFRS capitalizes development costs (not research); U.S. GAAP expenses both (software exceptions).

8 **Goodwill** = Purchase Price − FV of identifiable net assets. Capitalized (both), not amortized, impairment-tested annually.

9 **Investment property** (IFRS only): cost or fair-value model; FV changes hit the income statement.

Liabilities & Equity

10 **Current liabilities:** AP · accrued expenses · short-term debt & current portion of LTD · deferred (unearned) revenue. **Non-current:** LTD at amortized cost · pensions · deferred tax liabilities.

11 **Equity components:** contributed capital (par + APIC) · preferred (may be debt or equity) · treasury stock (reduces SE, no P/L on resale) · retained earnings · AOCI ($AOCI_t = AOCI_{t-1} + OCI_t$) · non-controlling interest.

Analysis — Common-Size & Ratios

12 **Vertical common-size B/S:** every line ÷ total assets. Enables time-series and cross-sectional comparisons.

13 **Liquidity:** Current = CA/CL · Quick = (Cash + MktSec + AR)/CL · Cash = (Cash + MktSec)/CL.

14 **Solvency:** LT D/E = LT Debt / Equity · D/E = Total Debt / Equity · D/A = Total Debt / Total Assets · Financial leverage = Total Assets / Total Equity.

Last-Minute Exam Checklist

A = L + E — the non-negotiable identity

Classified = IFRS & GAAP required · **Liquidity-based** = IFRS only, if more relevant

Marketable securities: FVTPL → NI · FVOCI (AFS) → OCI → AOCI · Amortized cost (HTM) → no unrealized G/L

AR on B/S = NRV (gross − allowance); allowance disclosed in Notes

PP&E: cost model (both) or revaluation model (IFRS); impairment reversible IFRS, not GAAP

Goodwill = purchase price − FV identifiable net assets · not amortized · annual impairment test

Treasury stock: reduces SE by $ repurchased, no G/L on resale

Liquidity ladder (strictest last): Current → Quick → Cash · **Leverage:** TA/TE

Step 1 of 15