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Bachelor of Commerce (B2001) | Year 1 • Part A Core | Monash University

Accounting fundamentals

Course Code: ACC1001 • Module 1 Notes

Module 1: Accounting as the Language of Business & Financial Statement Literacy

1.1 The Role of Accounting in Business and Managerial Decision-Making

Accounting is the systematic process of identifying, measuring, recording, and communicating economic information about an entity to permit informed judgements and decisions by users of that information. Often described as the language of business, accounting translates diverse operational activities—purchasing inventory, paying wages, acquiring machinery, extending credit to customers, and raising capital—into a standardised financial vocabulary. Without reliable accounting records, managers cannot evaluate whether pricing covers costs, lenders cannot assess creditworthiness, and capital markets cannot allocate resources efficiently.

Modern accounting serves two distinct yet interconnected information domains: financial accounting and management accounting. Although both draw upon the same underlying transaction-processing systems, they differ substantially in audience, regulatory constraint, time horizon, and reporting granularity.

Dimension	Financial Accounting	Management Accounting
Primary Users	External stakeholders: shareholders, lenders, suppliers, regulators (ASIC, ATO, ASX), and analysts.	Internal decision-makers: board of directors, executives, divisional managers, and operational supervisors.
Governing Framework	Mandatory compliance with Australian Accounting Standards (AASB), IFRS, and the *Corporations Act 2001 (Cth)*.	No statutory format; governed by managerial usefulness and cost-benefit relevance.
Time Orientation	Primarily historical, reporting past financial performance and position at a reporting date.	Future-oriented, emphasising budgets, forecasts, variance projections, and capital appraisals.
Reporting Scope	Entity-wide or consolidated group level (annual and half-yearly general purpose financial statements).	Disaggregated by product line, customer segment, geographical region, or responsibility centre.
Verification & Precision	Audited or reviewed for faithful representation and objective verifiability.	Timeliness and relevance often outweigh strict precision; incorporates estimates and non-financial metrics.

Users of Accounting Information

Understanding who relies on accounting outputs clarifies why reporting rules exist and what questions financial statements must answer. Users fall into internal and external categories, each holding distinct economic stakes in the reporting entity.

- **Internal Users:** Executive directors and line managers use accounting data to set product prices, manage working capital, evaluate departmental efficiency, approve capital expenditure, and monitor compliance with debt covenants. Employees and trade unions examine profitability and liquidity indicators to assess job security and remuneration sustainability.
- **External Capital Providers:** Existing and prospective equity investors evaluate return on equity, earnings growth, and dividend capacity before buying, holding, or selling shares on the Australian Securities Exchange (ASX). Banks and bondholders assess solvency, interest coverage, and operating cash flow stability to price loan risk and establish lending covenants.
- **Commercial Counterparties:** Trade suppliers examine short-term liquidity ratios before extending 30-day or 60-day credit terms, while corporate customers evaluate a vendor's financial staying power before committing to multi-year supply or software maintenance agreements.
- **Regulators and Public Authorities:** In Australia, the Australian Securities and Investments Commission (ASIC) oversees corporate financial reporting integrity; the Australian Taxation Office (ATO) relies on accounting profit reconciled to taxable income for corporate tax and Goods and Services Tax (GST) administration; and the Australian Prudential Regulation Authority (APRA) monitors capital adequacy across banks and insurers.

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The AASB Conceptual Framework and Qualitative Characteristics

In Australia, general purpose financial reporting is anchored by the Australian Accounting Standards Board (AASB) *Conceptual Framework for Financial Reporting*, which aligns with the International Accounting Standards Board (IASB) framework. Its overarching objective is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions about providing resources to the entity.

To be decision-useful, financial information must possess two **fundamental qualitative characteristics**:

1. **Relevance:** Information is relevant when it is capable of making a difference in users' decisions through predictive value (helping forecast future cash flows), confirmatory value (providing feedback on prior evaluations), or both. Relevance is governed by the entity-specific constraint of *materiality*: information is material if omitting, misstating, or obscuring it could reasonably be expected to influence decisions made by primary users.
2. **Faithful Representation:** Financial reports must represent the substance of economic phenomena faithfully, not merely their legal form. Faithful representation requires information to be complete (containing all necessary descriptions and explanations), neutral (free from bias in selection or presentation), and free from material error in measurement and process.

Four **enhancing qualitative characteristics** improve the usefulness of information that is already relevant and faithfully represented: *comparability* (across periods and across entities), *verifiability* (independent observers can reach consensus that a depiction is faithful), *timeliness* (available before losing capacity to influence decisions), and *understandability* (classified and presented clearly and concisely for users with reasonable business knowledge).

The Accounting Cycle and Internal Control Systems

To transform raw commercial events into decision-useful financial statements, accounting systems execute a recurring eight-step **accounting cycle** during each reporting period: (1) identify and analyse transactions from source documents (tax invoices, bank statements, payroll summaries, shipping dockets); (2) record entries chronologically in journals; (3) post entries to individual asset, liability, equity, revenue, and expense accounts in the general ledger; (4) prepare an unadjusted trial balance to verify debit-credit equality; (5) record end-of-period accrual adjusting entries (prepayments, unearned revenue, accrued expenses, depreciation); (6) prepare an adjusted trial balance; (7) compile the financial statements; and (8) record closing entries transferring temporary revenue, expense, and dividend balances to Retained Earnings.

Reliable accounting outputs depend equally on robust **internal controls**—policies and procedures designed to safeguard assets, prevent and detect fraud or error, and ensure record accuracy. Core preventive and detective controls in Australian businesses include *segregation of duties* (separating custody of cash or inventory from authorisation and accounting record-keeping), *independent bank reconciliations* prepared monthly to resolve timing differences and unrecorded bank fees, *dual-signature payment approvals*, and *periodic physical stocktakes* reconciled to perpetual inventory ledgers.

1.2 Australian Business Structures and Regulatory Context

The legal form through which an enterprise operates determines owner liability, taxation treatment, capital-raising flexibility, governance obligations, and statutory financial reporting requirements under Australian law. Future managers must understand how accounting responsibilities shift as a venture evolves from a small unincorporated business to a publicly listed corporation.

Feature	Sole Trader	Partnership	Proprietary Company (Pty Ltd)	Public Company (Ltd)
Legal Status	Not a separate legal entity; owner and business are legally identical.	Generally not a separate legal entity; governed by state Partnership Acts (e.g., *Partnership Act 1958 (Vic)*).	Separate legal entity incorporated under the *Corporations Act 2001 (Cth)*.	Separate legal entity incorporated under the *Corporations Act 2001 (Cth)*; may list on the ASX.
Owner Liability	Unlimited personal liability for all business debts and legal claims.	Unlimited joint and several liability of general partners for firm debts.	Limited to any unpaid amount on shares held (unless personal guarantees are given).	Limited to the issue price of shares held by shareholders.

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Feature	Sole Trader	Partnership	Proprietary Company (Pty Ltd)	Public Company (Ltd)
Income Taxation	Profits taxed in the owner's hands at individual marginal income tax rates.	Partnership lodges an information return; each partner pays tax on their share of net income.	Separate taxpayer subject to corporate tax rate (25% base rate entity or 30% standard).	Separate taxpayer at 30% corporate rate (or 25% if qualifying base rate entity); franking credits attach to dividends.
Capital & Continuity	Limited to personal savings and personal borrowing; ceases on owner's death or retirement.	Pooled partner capital; dissolves on partner exit unless agreement specifies continuation.	Restricted to 50 non-employee shareholders; cannot raise capital from the general public.	Unlimited shareholders; can issue shares or debt securities to the public via prospectus.
Financial Reporting	No statutory AASB reporting; records kept for ATO tax and GST compliance.	Internal financial statements per partnership deed; ATO tax records required.	Small Pty Ltd generally exempt from lodgement; Large Pty Ltd must prepare audited AASB financial reports.	Mandatory annual audited financial statements lodged with ASIC (and half-year reports if listed/disclosing).

Agency Relationships and Differential Reporting in Australia

When a business incorporates as a large proprietary or public company, ownership (shareholders) separates from control (executive directors and senior managers). This separation creates an **agency relationship** in which managers act as agents for shareholders (principals). Because agents may possess superior operational information and face personal incentives—such as short-term bonuses or perquisite consumption—that diverge from long-term shareholder wealth, external financial reporting, independent external audits, and corporate governance oversight serve as primary monitoring mechanisms to mitigate agency costs.

To prevent disproportionate compliance burdens on smaller enterprises, the *Corporations Act 2001 (Cth)* distinguishes between small and large proprietary companies under section 45A. A proprietary company is classified as **large** for a financial year if it satisfies at least two of three statutory thresholds: consolidated revenue of $50 million or more, consolidated gross assets of $25 million or more at financial year-end, or 100 or more employees at financial year-end. Large proprietary companies and public companies must lodge audited financial reports with ASIC.

Under the AASB differential reporting framework, entities preparing general purpose financial statements apply either **Tier 1** (full Australian Accounting Standards, incorporating all IFRS recognition, measurement, and disclosure rules, mandatory for listed entities and publicly accountable institutions) or **Tier 2** (Simplified Disclosures under AASB 1060, which retains full AASB recognition and measurement rules while reducing note disclosures for non-publicly accountable entities such as large proprietary companies).

1.3 The Accounting Equation and Transaction Analysis

Every financial reporting system rests on a structural duality: economic resources controlled by an entity must equal the claims against those resources held by creditors and owners. This relationship is expressed through the fundamental accounting equation.

$$A = L + E$$

Where:

- A = Assets (present economic resources controlled by the entity as a result of past events, having the potential to produce economic benefits)
- L = Liabilities (present obligations of the entity to transfer an economic resource as a result of past events)
- E = Equity (the residual interest in the assets of the entity after deducting all its liabilities)

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For operational reporting over an accounting period, equity is disaggregated into contributed capital, retained earnings generated by revenue and expenses, and distributions (dividends or owner drawings). This yields the expanded accounting equation:

$$A = L + C + (R - X) - D$$

Where:

- C = Contributed Equity (share capital or owner capital contributions)
- R = Revenue and other income (increases in assets or decreases in liabilities that increase equity, excluding owner contributions)
- X = Expenses (decreases in assets or increases in liabilities that decrease equity, excluding distributions to owners)
- D = Dividends or Drawings (distributions of equity to owners)

Accrual Accounting versus Cash Accounting

A core distinction in financial literacy lies between cash-basis and accrual-basis accounting. Under **cash accounting**, transactions are recorded solely when cash is received or paid. While simple, cash accounting distorts performance whenever credit is extended or multi-period assets are acquired: a consulting firm completing a major engagement in June that receives payment in July would appear unprofitable in June and artificially profitable in July.

Australian Accounting Standards mandate **accrual accounting** for general purpose financial statements (with the exception of the Statement of Cash Flows). Under accrual accounting, the financial effects of transactions and events are recognised in the periods in which those transactions occur, regardless of when cash changes hands:

- **Revenue Recognition (AASB 15):** Revenue is recognised when (or as) the entity satisfies a performance obligation by transferring control of a promised good or service to a customer, measured at the transaction price expected in exchange. Cash received before service delivery creates a liability (*Unearned Revenue*); goods delivered before billing or payment create an asset (*Accounts Receivable* or *Accrued Revenue*).
- **Expense Recognition:** Costs directly linked to revenue—such as Cost of Goods Sold—are expensed in the same period the related revenue is recognised. Costs providing future economic benefits over multiple periods (such as prepaid insurance or delivery trucks) are initially capitalised as assets and systematically expensed over time as those benefits are consumed (e.g., through depreciation). Costs incurred in the period that have not yet been paid (such as unpaid June electricity or employee wages) are recorded as *Accrued Expenses* (liabilities).

Worked Numerical Example: Transaction Analysis Worksheet (AUD)

Consider *Yarra Valley Roasters Pty Ltd*, a specialty wholesale coffee roaster established in Melbourne on 1 July 2026. The company records its first eight transactions for July 2026 (ignoring GST for conceptual clarity):

1. **1 July:** Shareholders contribute $120,000 cash in exchange for ordinary shares.
2. **2 July:** The company borrows $80,000 from an Australian commercial bank via a 5-year term loan.
3. **4 July:** Roasting machinery is purchased for $90,000 cash (expected useful life 5 years, nil residual value; monthly depreciation = $1,500).
4. **8 July:** Green coffee beans (inventory) costing $35,000 are purchased on 30-day credit from an importer.
5. **15 July:** Roasted coffee is sold on credit to Melbourne cafes for $48,000. The cost of the beans sold was $21,000.
6. **22 July:** A 12-month commercial property insurance policy costing $6,000 is paid upfront in cash.
7. **28 July:** $32,000 cash is collected from cafe customers for the 15 July credit sale, and $20,000 is paid to the green bean importer.
8. **31 July:** End-of-month adjusting entries: recognise 1 month of insurance expense ($500), 1 month of machinery depreciation ($1,500), and unpaid July staff wages accrued of $7,500.

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Date	Cash	Receivables	Inventory	Prepaid Ins.	Equipment (Net)	= Payables & Accrued	+ Bank Loan	+ Share Capital	+ Retained Earnings
1 Jul	+$120,000	$0	$0	$0	$0	$0	$0	+$120,000	$0
2 Jul	+$80,000	$0	$0	$0	$0	$0	+$80,000	$0	$0
4 Jul	−$90,000	$0	$0	$0	+$90,000	$0	$0	$0	$0
8 Jul	$0	$0	+$35,000	$0	$0	+$35,000	$0	$0	$0
15 Jul (Sale)	$0	+$48,000	$0	$0	$0	$0	$0	$0	+$48,000 (Rev)
15 Jul (COGS)	$0	$0	−$21,000	$0	$0	$0	$0	$0	−$21,000 (Exp)
22 Jul	−$6,000	$0	$0	+$6,000	$0	$0	$0	$0	$0
28 Jul	+$12,000	−$32,000	$0	$0	$0	−$20,000	$0	$0	$0
31 Jul (Adj)	$0	$0	$0	−$500	−$1,500	+$7,500	$0	$0	−$9,500 (Exp)
Balance	**$116,000**	**$16,000**	**$14,000**	**$5,500**	**$88,500**	**$22,500**	**$80,000**	**$120,000**	**$17,500**

Verification at 31 July 2026: Total Assets equal $116,000 + $16,000 + $14,000 + $5,500 + $88,500 = $240,000. Total Liabilities equal $22,500 + $80,000 = $102,500. Total Equity equals $120,000 + $17,500 = $137,500. Checking the accounting equation confirms $240,000 = $102,500 + $137,500. Notice that July accrual profit before tax is $17,500 ($48,000 revenue minus $21,000 COGS, $500 insurance, $1,500 depreciation, and $7,500 accrued wages), whereas operating cash inflows minus operating cash outflows during July totalled $32,000 collected minus $6,000 insurance minus $20,000 inventory = $6,000. Both figures are economically true: one measures value creation, and the other measures cash liquidity.

Accounting for Goods and Services Tax (GST) in Australia

In practical Australian bookkeeping, most commercial supplies of goods and services carry a 10% Goods and Services Tax (GST) under *A New Tax System (Goods and Services Tax) Act 1999 (Cth)*. Enterprises registered for GST (mandatory when annual GST turnover reaches $75,000, or $150,000 for non-profit bodies) act as collection agents for the Australian Taxation Office (ATO). Consequently, GST is neither revenue to the seller nor an expense to a GST-registered buyer.

- **GST Collected (Output Tax):** When a GST-registered business sells goods for $1,100 GST-inclusive, only $1,000 ($1,100 / 1.1) is recognised as Sales Revenue; the remaining $100 is recorded as *GST Collected* (a current liability owed to the ATO).
- **GST Paid / Input Tax Credits:** When the business purchases inventory or equipment for $550 GST-inclusive from a registered supplier, only $500 is capitalised as Inventory or Equipment cost; the $50 is recorded as *GST Paid* (a current asset or reduction of the net GST liability).
- **Net BAS Remittance:** At the end of each month or quarter, the business lodges a Business Activity Statement (BAS) and remits the net difference ($100 − $50 = $50) to the ATO, or claims a refund if GST Paid exceeds GST Collected.

1.4 Preparing and Reading Core Financial Statements

Under AASB 101 *Presentation of Financial Statements* and AASB 107 *Statement of Cash Flows*, a complete set of financial statements comprises four primary statements supplemented by explanatory notes. Together, they articulate an entity's financial performance over a period and its financial position at a point in time.

1. Statement of Profit or Loss (Income Statement)

The Statement of Profit or Loss measures financial performance over a reporting period (typically 12 months ending 30 June in Australia) by matching accrual revenue against expenses. For merchandising and manufacturing firms, a multi-step presentation separates core trading profitability from administrative overheads and financing decisions:

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- **Revenue (Sales):** Inflows from delivering goods or rendering services, net of customer returns and trade discounts.
- **Cost of Sales (COGS):** Direct inventory or production cost of units sold during the period. Subtracting COGS from revenue yields **Gross Profit**, which measures pricing power and procurement efficiency.
- **Operating Expenses:** Selling, distribution, marketing, administration, depreciation, and occupancy expenses incurred to run the business. Subtracting operating expenses from gross profit (and adding other operating income) yields **Operating Profit (EBIT — Earnings Before Interest and Tax)**.
- **Finance Costs and Income Tax:** Deducting interest expense gives **Profit Before Tax (PBT)**, and deducting corporate income tax expense yields **Net Profit After Tax (NPAT)**.

2. Statement of Financial Position (Balance Sheet)

The Balance Sheet presents a static snapshot of assets, liabilities, and equity at the end of the reporting period. Under AASB 101, entities normally classify assets and liabilities as **current** (expected to be realised, sold, consumed, or settled within 12 months or the normal operating cycle) or **non-current** (long-term operational resources such as property, plant and equipment, intangible assets, and long-term borrowings). Comparing current assets against current liabilities establishes Net Working Capital:

$$WC = CA - CL$$

Where:

- WC = Net Working Capital (dollars of short-term buffer available for ongoing operations)
- CA = Total Current Assets (cash, trade receivables, inventory, prepayments)
- CL = Total Current Liabilities (trade payables, accrued expenses, short-term borrowings, current tax payable)

3. Statement of Changes in Equity

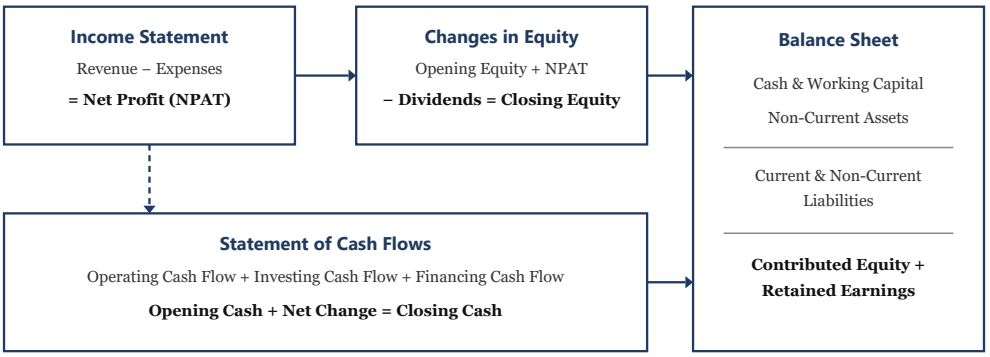
This statement bridges the opening and closing equity balances on the Balance Sheet by detailing new share issues, share buy-backs, net profit (or loss) added to retained earnings, dividends declared to shareholders, and movements in other reserves such as asset revaluation surpluses.

4. Statement of Cash Flows

Because accrual profit incorporates non-cash charges (such as depreciation) and timing differences in receivables and payables, AASB 107 requires a Statement of Cash Flows classifying cash movements into three functional categories:

- **Operating Activities:** Cash inflows from customers and outflows to suppliers, employees, interest, and income taxes. AASB 107 permits either the *direct method* (showing gross cash receipts and payments, encouraged by AASB) or the *indirect method* (reconciling net profit to operating cash flow by adding back depreciation and adjusting for changes in working capital).
- **Investing Activities:** Cash flows from acquiring or disposing of long-term assets, such as property, plant, equipment, intangible assets, and long-term financial investments. Persistent negative investing cash flows in a healthy growing firm typically reflect capital expansion rather than distress.
- **Financing Activities:** Cash inflows and outflows involving external capital providers, including proceeds from share issues, loan drawdowns, debt repayments, lease principal repayments, and dividends paid.

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Worked Numerical Example: Integrated Financial Statements (AUD)

Melbourne Urban Logistics Pty Ltd reports the following adjusted account balances at 30 June 2026 (its second year of operations). Opening retained earnings on 1 July 2025 were $145,000, opening cash was $94,200 (with opening current tax payable of nil), and dividends declared and paid during the year totalled $30,000. During FY2026, the company purchased new delivery vans for $70,000 cash and repaid $25,000 of bank loan principal. Trade receivables increased by $18,000, inventory decreased by $6,000, and trade payables increased by $12,000 relative to 30 June 2025.

Adjusted Balances (30 June 2026): Sales Revenue $820,000; Cost of Goods Sold $492,000; Warehouse & Distribution Expenses $128,000; Administrative Salaries $64,000; Depreciation Expense $28,000; Finance Costs (Interest Expense) $12,000; Income Tax Expense (30% rate) $28,800; Cash $73,200; Trade Receivables $84,000; Inventory $62,000; Delivery Vans & Equipment (net of accumulated depreciation) $290,000; Trade Payables $54,000; Current Tax Payable $8,800; Long-Term Bank Loan $150,000; Share Capital $114,000.

Step 1: Statement of Profit or Loss for the Year Ended 30 June 2026

Line Item	Calculation / Basis	Amount (A$)
Sales Revenue	Recognised accrual sales	$820,000
Less: Cost of Goods Sold	Inventory consumed	($492,000)
Gross Profit	$820,000 − $492,000	**$328,000**
Less: Warehouse & Distribution	Operating expense	($128,000)
Less: Administrative Salaries	Operating expense	($64,000)
Less: Depreciation Expense	Non-cash allocation	($28,000)
Operating Profit (EBIT)	$328,000 − $220,000	**$108,000**
Less: Finance Costs	Interest on bank loan	($12,000)
Profit Before Tax (PBT)	$108,000 − $12,000	**$96,000**
Less: Income Tax Expense	30% × $96,000	($28,800)
Net Profit After Tax (NPAT)	$96,000 − $28,800	**$67,200**

Step 2: Retained Earnings & Statement of Financial Position as at 30 June 2026

Closing Retained Earnings = Opening Retained Earnings ($145,000) + NPAT ($67,200) − Dividends Paid ($30,000) = $182,200.

Assets	A$	Liabilities & Equity	A$
Current Assets		**Current Liabilities**	

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Assets	A$	Liabilities & Equity	A$
Cash at Bank	$73,200	Trade Payables	$54,000
Trade Receivables	$84,000	Current Tax Payable	$8,800
Inventory	$62,000	**Total Current Liabilities**	**$62,800**
Total Current Assets	**$219,200**	**Non-Current Liabilities**	
Non-Current Assets		Long-Term Bank Loan	$150,000
Vans & Equipment (Net)	$290,000	**Total Liabilities**	**$212,800**
		Equity	
		Share Capital	$114,000
		Retained Earnings	$182,200
		Total Equity	**$296,200**
Total Assets	**$509,200**	**Total Liabilities & Equity**	**$509,200**

Step 3: Indirect Operating Cash Flow Reconciliation & Cash Summary

Starting from NPAT ($67,200), we add back non-cash depreciation (+$28,000), subtract the increase in trade receivables (–$18,000, since accrual sales exceeded cash collections), add the decrease in inventory (+$6,000, since existing stock was sold without full cash replacement), add the increase in trade payables (+$12,000, representing supplier credit retained), and add the unpaid year-end current tax payable (+$8,800, reconciling $28,800 accrual tax expense to $20,000 cash tax remitted to the ATO). Summing these adjustments yields Net Cash Provided by Operating Activities of $104,000.

Statement of Cash Flows Summary (Indirect Method)	Amount (A$)
Net Profit After Tax (NPAT)	$67,200
Add back: Non-cash Depreciation Expense	$28,000
Less: Increase in Trade Receivables	($18,000)
Add: Decrease in Inventory	$6,000
Add: Increase in Trade Payables	$12,000
Add: Increase in Current Tax Payable	$8,800
Net Cash Provided by Operating Activities	**$104,000**
Purchase of Delivery Vans (Investing)	($70,000)
Net Cash Used in Investing Activities	**($70,000)**
Repayment of Bank Loan Principal	($25,000)
Dividends Paid to Shareholders	($30,000)
Net Cash Used in Financing Activities	**($55,000)**
Net Increase / (Decrease) in Cash	($21,000)
Cash at Beginning of Year (1 July 2025)	$94,200
Cash at End of Year (30 June 2026)	**$73,200**

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Accounting Policy Choices: Depreciation and Inventory Valuation

Preparing accrual financial statements requires management judgements governed by Australian Accounting Standards. Two policy areas exert substantial influence over reported profit and asset carrying amounts: depreciation of property, plant, and equipment (AASB 116) and inventory cost-flow assumptions (AASB 102).

Under AASB 116, the depreciable amount of a non-current asset (cost minus expected residual value) is allocated systematically over its useful life. Under the **straight-line method**, annual depreciation remains constant, reflecting uniform consumption of economic benefits:

$$D_{\text{SL}} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful Life (Years)}}$$

Where:

- D_{SL} = Annual straight-line depreciation expense
- $extCost$ = Acquisition price plus directly attributable delivery and installation costs (excluding recoverable GST)
- $extResidualV\,alue$ = Estimated net disposal value at the end of the asset's useful life

Alternatively, the **diminishing-balance (reducing-balance) method** applies a fixed depreciation percentage (k) to the asset's declining carrying amount (book value), front-loading higher expense in early years when assets are most productive and maintenance costs are lowest:

$$D_t = k \times (\text{Cost} - \text{Accumulated Depreciation}_{t-1})$$

Where:

- D_t = Depreciation expense in year t
- k = Diminishing-balance depreciation rate (often $\$1.5 or 2.0\$$ times the straight-line rate)
- $extAccumulatedDepreciation_{t-1}$ = Total depreciation recorded up to the end of year $t - 1$

For example, a $60,000 commercial delivery truck with a 5-year useful life and $10,000 residual value incurs straight-line depreciation of ($60,000 − $10,000) / 5 = $10,000 per year. By contrast, under a 40% diminishing-balance rate, Year 1 depreciation is 0.40 × $60,000 = $24,000 (leaving carrying amount $36,000), and Year 2 depreciation is 0.40 × $36,000 = $14,400. While total lifetime depreciation ($50,000) is identical across methods, diminishing-balance reduces early-year EBIT and improves early tax shields where tax law permits accelerated write-offs.

Similarly, under AASB 102 *Inventories*, entities holding interchangeable merchandise select between **First-In, First-Out (FIFO)**—assuming oldest stock is sold first so ending inventory reflects recent replacement prices—and **Weighted Average Cost (WAC)**, which pools inventory cost continuously. Note that AASB 102 prohibits Last-In, First-Out (LIFO). During inflationary periods, FIFO assigns lower historical unit costs to COGS and higher recent costs to Ending Inventory, reporting higher Gross Profit and higher current assets than Weighted Average Cost.

Assessing Cash Flow Quality and Free Cash Flow

Comparing the Statement of Cash Flows against the Income Statement reveals the **quality of earnings**. Analysing the cash conversion ratio (OCF/NPAT) tests whether accounting profit translates into spendable cash; a ratio persistently below 1.0 warns that profit is tied up in slow-paying receivables or unsold stock. Managers and analysts also evaluate **Free Cash Flow (FCF)**—cash generated from core operations remaining after sustaining capital infrastructure:

$$FCF = OCF - \text{Capital Expenditure (CapEx)}$$

Where:

- FCF = Free Cash Flow available for debt reduction, dividends, or strategic acquisitions

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- OCF = Net Cash Provided by Operating Activities
- $extCapEx$ = Cash outflows required to maintain or expand property, plant, and equipment

In the *Melbourne Urban Logistics Pty Ltd* example above, OCF = $104,000 while CapEx for delivery vans totalled $70,000, yielding positive Free Cash Flow of $104,000 - 70,000 =$ $34,000. Because the company paid $25,000 in debt principal and $30,000 in dividends ($55,000 combined), it drew down $21,000 from opening cash reserves to fund the balance.

1.5 Interpreting Financial Health: Ratio Analysis and Managerial Insights

Raw dollar totals on financial statements seldom reveal whether performance is strong or fragile without scale adjustment. Financial ratio analysis standardises relationships across profitability, liquidity, asset efficiency, and solvency so managers and investors can benchmark an entity against prior periods, strategic targets, and industry peers.

Profitability Ratios

Profitability ratios assess how effectively management converts revenue and capital into earnings.

$$GPM = \frac{\text{Gross Profit}}{\text{Sales Revenue}} \times 100\%, \qquad NPM = \frac{\text{NPAT}}{\text{Sales Revenue}} \times 100\%$$

Where:

- GPM = Gross Profit Margin (percentage of each sales dollar retained after direct product costs)
- NPM = Net Profit Margin (percentage of each sales dollar converted to after-tax profit)
- NPAT = Net Profit After Tax

$$ROA = \frac{\text{EBIT or NPAT}}{\text{Average Total Assets}} \times 100\%, \qquad ROE = \frac{\text{NPAT}}{\text{Average Total Equity}} \times 100\%$$

Where:

- ROA = Return on Assets (operating return generated per dollar of asset base; using EBIT isolates operational asset productivity from capital structure and tax)
- ROE = Return on Equity (return earned on shareholders' invested and retained capital)

Analysts decompose Return on Equity through the three-factor **DuPont Framework** to separate operating profitability, asset utilisation, and financial leverage:

$$ROE = \underbrace{\frac{\text{NPAT}}{\text{Sales Revenue}}}_{\text{Net Profit Margin}} \times \underbrace{\frac{\text{Sales Revenue}}{\text{Average Total Assets}}}_{\text{Asset Turnover}} \times \underbrace{\frac{\text{Average Total Assets}}{\text{Average Total Equity}}}_{\text{Equity Multiplier}}$$

Where:

- $extNetProfitMargin$ = Operating and tax efficiency per sales dollar
- $extAssetTurnover$ = Sales dollars generated per dollar of assets deployed
- $extEquityMultiplier$ = Financial leverage factor ($1 + D/E$), magnifying ROE when ROA exceeds borrowing costs but increasing insolvency risk during downturns

Liquidity and Asset Efficiency Ratios

Liquidity ratios gauge an entity's capacity to meet short-term obligations as they fall due over the coming 12 months.

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$$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}}, \qquad QR = \frac{\text{Cash} + \text{Marketable Securities} + \text{Trade Receivables}}{\text{Current Liabilities}}$$

Where:

- CR = Current Ratio (broad coverage of short-term liabilities by current assets)
- QR = Quick Ratio or Acid-Test Ratio (excludes inventory and prepayments to test immediate near-cash liquidity)

Efficiency ratios measure how rapidly working capital converts back into cash:

$$DSO = \frac{\text{Average Trade Receivables}}{\text{Credit Sales}} \times 365, \qquad DIO = \frac{\text{Average Inventory}}{\text{COGS}} \times 365$$

Where:

- DSO = Days Sales Outstanding (average number of days taken to collect credit sales)
- DIO = Days Inventory Outstanding (average number of days inventory sits before sale)

Solvency and Capital Structure Ratios

Solvency ratios evaluate long-term financial survival and exposure to debt servicing risk.

$$D/E = \frac{\text{Total Liabilities}}{\text{Total Equity}}, \qquad ICR = \frac{\text{EBIT}}{\text{Finance Costs (Interest Expense)}}$$

Where:

- D/E = Debt-to-Equity Ratio (proportion of assets financed by creditors relative to owners)
- ICR = Interest Coverage Ratio (number of times operating profit covers annual interest obligations)

Worked Numerical Example: Diagnostic Evaluation of Southern Cross Hospitality Ltd

Southern Cross Hospitality Ltd operates boutique hotels and catering venues in Victoria and South Australia. Compare its financial ratios between FY2025 and FY2026 based on the financial extracts below (all figures in A$ thousands; assume ending balances approximate averages for ratio computation):

Financial Metric / Ratio	FY2025	FY2026	Interpretation
Sales Revenue	$12,000	$14,400	Top-line revenue grew 20.0%.
Gross Profit	$6,600	$7,200	Gross Profit Margin fell from 55.0% to 50.0%.
Operating Profit (EBIT)	$1,800	$1,728	EBIT margin contracted from 15.0% to 12.0%.
Finance Costs (Interest)	$200	$432	Interest expense more than doubled due to new debt.
NPAT (30% tax)	$1,120	$907.2	Net Profit Margin dropped from 9.33% to 6.30%.
Current Assets / Current Liabilities	$3,200 / $1,600	$3,100 / $2,500	Current Ratio weakened from 2.00x to 1.24x.
Cash + Receivables	$2,400	$1,850	Quick Ratio fell sharply from 1.50x to 0.74x.
Total Liabilities / Total Equity	$4,000 / $6,000	$8,500 / $6,500	Debt-to-Equity rose from 0.67x to 1.31x.
Interest Coverage (EBIT / Interest)	9.00x	4.00x	Debt servicing buffer halved, though still solvent.

Managerial Diagnosis: Although revenue grew by 20% in FY2026, headline growth masked deteriorating operational and financial health. First, Gross Profit Margin fell by 500 basis points (55.0% to 50.0%), signalling either supplier food-cost inflation not passed on to customers or promotional discounting. Second, inventory expanded from $800k ($3,200k – $2,400k) to $1,250k ($3,100k – $1,850k), tying up cash and pushing the Quick Ratio below 1.00 (0.74x), meaning immediate obligations exceed near-cash assets. Third, increased borrowing lifted Debt-to-Equity from 0.67 to 1.31 and compressed Interest Coverage from 9.00x to 4.00x, causing NPAT to decline by 19% despite higher sales. Management should prioritise supplier renegotiation or menu repricing, clear slow-moving inventory, and halt further short-term debt accumulation.

Limitations of Historical Financial Statement Analysis

Sound managerial judgement also requires recognising what traditional financial statements omit. Most non-current operating assets are recorded at historical cost less depreciation rather than current market value, distorting asset-based ratios during periods of inflation. Accounting choices—such as straight-line versus diminishing-balance depreciation or inventory cost-flow assumptions—affect comparability across competitors. Furthermore, financial statements exclude vital off-balance-sheet drivers of enterprise value such as brand equity, workforce capability, customer loyalty, and exposure to climate transition risks, themes addressed directly in Modules 2 through 4.

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