Finance and Accounts

IB SL Study Guide

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Sources of Finance

Every business needs money to start up, grow, and keep operating. **Finance** is the fuel that allows a business to acquire resources, invest in new capacity, and weather periods of low cash flow. The central choice facing managers is: where should that money come from? The answer depends on how much is needed, how quickly, at what cost, and whether the business is willing to give up ownership or control in exchange for funds.

Sources of finance are classified along two dimensions: **internal vs external** and **short-term vs long-term**.

Internal Sources

Internal sources come from within the business itself. They do not involve borrowing or selling ownership stakes, so they carry no interest cost and do not dilute shareholder control. However, they are limited by what the business has already accumulated.

- **Retained profit** — The portion of after-tax profit kept in the business rather than paid as a dividend. This is the most important internal source for established, profitable businesses. It is "free" in the sense that no interest is paid, but it represents money that shareholders could otherwise have received.
- **Sale of assets** — Selling assets that are no longer needed (e.g., unused machinery, surplus property) generates a one-time cash inflow. This is only available where the business holds non-essential assets, and the assets may take time to sell.
- **Working capital reduction** — Tightening the management of current assets and current liabilities (e.g., collecting debtors faster, reducing inventory levels, or delaying payments to creditors) releases cash from the operating cycle without requiring external borrowing.

External Sources — Short-term

External short-term finance is typically used to cover temporary cash shortfalls or fund current operations.

- **Bank overdraft** — The business is permitted to withdraw more from its bank account than the balance allows, up to an agreed limit. It is flexible — interest is only charged on the amount overdrawn — but overdrafts are repayable on demand and carry relatively high interest rates.
- **Trade credit** — Suppliers allow the business to purchase goods or services now and pay later (typically 30–90 days). This is effectively an interest-free short-term loan if used within the agreed terms. It delays cash outflows without cost.
- **Debt factoring** — A factor (specialist finance company) purchases the business's outstanding debtor invoices at a discount (e.g., paying 85 cents in the dollar immediately). The business receives cash quickly but loses a percentage of the invoice value as the factor's fee.

External Sources — Long-term

Long-term finance funds major investments: new buildings, machinery, acquisitions, or sustained expansion.

- **Share issue** — Selling new shares to investors raises permanent capital. For a private limited company this means inviting new shareholders; for a public limited company it means a rights issue or new flotation. The business does not repay share capital, but shareholders expect dividends and a share of control.
- **Debentures** — Long-term bonds (loans) issued by the business to investors at a fixed rate of interest for a set period. Unlike bank loans, debentures can be traded on markets. The business must pay interest regardless of profitability.
- **Bank loan** — A fixed sum borrowed from a bank for a specified period at an agreed interest rate (fixed or variable). It is a straightforward, widely accessible form of long-term external finance.
- **Leasing** — Rather than buying an asset outright, a business can lease it — paying regular rental payments over the asset's useful life. Operating leases leave asset ownership with the lessor; finance leases give the lessee most of the risks and rewards of ownership. Leasing preserves cash and avoids obsolescence risk.
- **Microfinance** — Small loans made to entrepreneurs in developing economies who lack access to traditional banking. Microfinance institutions (such as Grameen Bank) target low-income individuals and small businesses. Loan amounts are typically small; repayment rates are often high.

Comparison of Sources

Criterion	Internal	External
Cost	No interest; but represents forgone dividends	Interest charges or dilution of ownership
Availability	Limited by past profitability and asset base	Wider range, subject to creditworthiness
Speed	Generally quicker (no approval process)	Can be slow (loan applications, share issues)
Control	No dilution of ownership	Share issues dilute ownership; loans may include covenants

Time horizon	Short-term examples	Long-term examples
Typical duration	Under 1 year	1+ years, often 5–25 years
Examples	Overdraft, trade credit, debt factoring	Bank loan, share issue, debentures, leasing
Common use	Cover cash flow gaps, seasonal demand	Capital investment, expansion, acquisition

EXAM ALERT

The IB examiner frequently asks you to **justify** a source of finance for a specific scenario. Never just list options — always link the source to the business's size, stage, profitability, and need. A small start-up cannot issue shares on a stock exchange. A cash-rich profitable business should use retained profit before borrowing.

IB TIP

For Paper 2 evaluation questions on sources of finance, structure your answer around these factors: **cost** (interest rate or dilution), **control** (does ownership change?), **availability** (can this business access this source?), and **time** (is the repayment period matched to the investment life?).

Costs and Revenues

Understanding how costs and revenues behave as output changes is foundational to all financial analysis in IB Business Management. Before calculating profit or performing break-even analysis, you must be able to classify costs correctly and calculate key financial figures.

Cost Classification

- **Fixed costs (FC)** — Costs that do not change with the level of output in the short run. They must be paid even if output is zero. Examples: rent, insurance, management salaries, depreciation, interest on loans.
- **Variable costs (VC)** — Costs that change directly and proportionally with the level of output. If output doubles, variable costs double. Examples: raw materials, direct labour (if paid per unit), packaging, electricity used in production.
- **Semi-variable costs** — Costs that contain both a fixed element and a variable element. A sales team's pay, for instance, might consist of a fixed salary plus a commission per unit sold. Mobile phone contracts (fixed monthly charge plus per-minute charges) are another example.

MEMORISE THIS

Cost and Revenue Formulas

$$TC = FC + VC$$

$$Revenue = Price \times Quantity$$

$$Profit = Revenue - Total\ Costs$$

$$Contribution\ per\ unit = Selling\ price\ per\ unit - Variable\ cost\ per\ unit$$

$$Total\ Contribution = Contribution\ per\ unit \times Quantity\ sold$$

Revenue

Revenue (also called sales revenue or turnover) is the total income earned from selling goods or services before any costs are deducted. It is calculated as:

$$Revenue = Price \times Quantity$$

Revenue is not the same as profit. A business may have high revenue but still make a loss if its costs exceed its income.

Profit and Contribution

Profit is the surplus remaining after all costs are deducted from revenue:

$$Profit = Revenue - Total\ Costs$$

Contribution is a particularly important concept for break-even analysis and decision-making. The contribution per unit is the amount each unit sold contributes toward covering fixed costs — and then to profit once fixed costs are fully covered:

$$Contribution\ per\ unit = Selling\ price\ per\ unit - Variable\ cost\ per\ unit$$

WORKED EXAMPLE

Worked Example — Costs, Revenue, Profit, and Contribution

A business sells handmade candles for $12 each. Variable costs per candle are $4. Monthly fixed costs are $2,400. In a given month, the business produces and sells 400 candles.

Item	Calculation	Value
Revenue	$12 · 400	$4,800
Variable costs	$4 · 400	$1,600
Fixed costs	(given)	$2,400
Total costs	$1,600 + $2,400	$4,000
Profit	$4,800 - $4,000	$800
Contribution per unit	$12 - $4	$8
Total contribution	$8 · 400	$3,200

Note that total contribution ($3,200) minus fixed costs ($2,400) equals profit ($800). This relationship confirms the formula.

EXAM ALERT

Students often confuse **contribution** with **profit**. Contribution is revenue minus **variable** costs only — it has not yet covered fixed costs. Profit is the amount remaining after **all** costs (fixed and variable) are deducted. In the example above, the $8 contribution per candle is not profit — the business only begins earning profit once the $2,400 of fixed costs has been fully covered.

Break-even Analysis

Break-even analysis identifies the output level at which a business neither makes a profit nor a loss — total revenue exactly equals total costs. It is a powerful planning tool that helps managers understand the minimum sales volume needed to avoid a loss and the safety margin available before a loss occurs.

Break-even Output

The **break-even point (BEP)** is calculated using:

$$BEP = \frac{Fixed\ Costs}{Contribution\ per\ unit}$$

At break-even output, total revenue equals total costs:

$$Total\ Revenue = Total\ Costs\ Price \times BEP = FC + (VC\ per\ unit \times BEP)$$

Margin of Safety

The **margin of safety** is the difference between the actual (or planned) level of output and the break-even output. It shows how much output could fall before the business starts making a loss:

$$Margin\ of\ Safety = Actual\ output - Break\text{-}even\ output$$

A positive margin of safety means the business is operating above break-even and can absorb a fall in demand without moving into loss.

The Break-even Chart

A break-even chart plots output on the horizontal axis (x-axis) and costs/revenue (in currency) on the vertical axis (y-axis). Three lines are drawn:

1. **Fixed cost line** — a horizontal line starting at the y-axis at the level of total fixed costs. It does not slope because fixed costs do not change with output.
2. **Total cost line** — starts at the same y-intercept as the fixed cost line (because total costs at zero output equal fixed costs) and slopes upward. The gradient equals the variable cost per unit.
3. **Revenue line** — starts at the origin (zero revenue at zero output) and slopes upward. The gradient equals the selling price per unit.

The **break-even point** is where the total cost line and the revenue line intersect. To the left of this point, total costs exceed revenue — the business is making a loss. To the right, revenue exceeds total costs — the business is profitable.

Limitations of Break-even Analysis

Break-even analysis is a useful but simplified model. Key limitations include:

- It assumes **all output is sold** — in reality, unsold inventory accumulates and revenue does not equal output times price.
- It assumes **costs and prices remain constant** — variable costs may change with bulk purchasing; selling prices may change with promotions or discounts.
- It treats variable costs as perfectly linear — in practice, costs per unit may fall at higher volumes (economies of scale) or rise (bottlenecks).
- It is a **static model** — it shows one break-even point at a moment in time and does not capture changes in the business environment.
- It is most reliable for single-product businesses; multi-product businesses require more complex analysis.

WORKED EXAMPLE

Worked Example — Break-even Point and Margin of Safety

A business produces artisan notebooks. Each notebook sells for $20. Variable costs per notebook are $8. Monthly fixed costs are $3,600. The business currently produces and sells 450 notebooks per month.

Step 1 — Contribution per unit:

$$Contribution\ per\ unit = \$20 - \$8 = \$12$$

Step 2 — Break-even output:

$$BEP = \frac{3600}{12} = 300 \text{ notebooks}$$

Step 3 — Margin of safety:

$$MoS = 450 - 300 = 150\ notebooks$$

Interpretation: The business must sell at least 300 notebooks to cover all costs. It currently sells 450, so it has a margin of safety of 150 units — output could fall by up to 150 notebooks before the business makes a loss.

IB TIP

In Paper 1 data-response questions, you may be asked to draw a break-even chart. Always: (1) label both axes; (2) mark the break-even point with dotted lines to both axes; (3) shade and label the profit or loss area; and (4) mark the current output and the margin of safety on the x-axis.

Financial Statements (Final Accounts)

Final accounts are formal financial statements prepared at the end of an accounting period to show what a business has earned and what it owns or owes. The two key statements for IB SL are the **Income Statement** (Profit and Loss Account) and the **Balance Sheet** (Statement of Financial Position).

The Income Statement

The income statement shows a business's **financial performance** over a period of time (typically one year). It matches revenues earned against costs incurred to arrive at profit or loss.

Structure of the Income Statement:

Line	Description
Revenue (Turnover)	Total income from sales of goods/services
Less: Cost of Goods Sold (COGS)	Direct costs of producing the goods sold (opening inventory + purchases - closing inventory)
= Gross Profit	Revenue minus COGS — profit from core trading before operating expenses
Less: Operating Expenses	Indirect costs: rent, salaries, marketing, depreciation, utilities
= Profit Before Tax (Operating Profit)	Gross profit minus operating expenses
Less: Tax	Corporate tax on profit
= Net Profit (Profit After Tax)	The "bottom line" — available for dividends or retained in the business

Simplified Income Statement Example:

Item	$000
Revenue	500
Less: Cost of Goods Sold	(200)
Gross Profit	**300**
Less: Operating Expenses	(180)
Profit Before Tax	**120**
Less: Tax (20%)	(24)
Net Profit	**96**

The Balance Sheet

The balance sheet shows a business's **financial position at a single point in time**. It is a snapshot of what the business owns (assets) and what it owes (liabilities), and the residual claim of owners (equity).

MEMORISE THIS

The Fundamental Accounting Equation:

$$Assets = Liabilities + Equity$$

This equation must always balance. Every transaction affects at least two items, keeping both sides equal.

Structure of the Balance Sheet:

Section	Examples
Non-current assets (fixed assets)	Property, machinery, vehicles, intangibles (patents, goodwill)
Current assets	Inventory (stock), trade debtors, cash and bank balances
Current liabilities	Trade creditors, overdraft, tax payable (due within 1 year)
Non-current liabilities	Long-term bank loans, debentures (due after 1 year)
Equity (shareholders' funds)	Share capital + retained profit (reserves)

Simplified Balance Sheet Example:

Item	$000	$000
Non-current Assets		
Property and Equipment		400
Current Assets		
Inventory	60	
Trade Debtors	80	
Cash	30	
Total Current Assets		170
Total Assets		**570**
Equity		
Share Capital	200	
Retained Profit	130	
Total Equity		330
Non-current Liabilities		
Long-term Loan		150
Current Liabilities		
Trade Creditors	70	
Tax Payable	20	
Total Current Liabilities		90
Total Equity and Liabilities		**570**

⚠ EXAM ALERT

Students frequently place inventory under current liabilities or confuse debtors with creditors. Remember: **debtors** owe money **to** the business (a current asset — someone owes you); **creditors** are owed money **by** the business (a current liability — you owe someone). Inventory is a current asset. Overdrafts are current liabilities.

Profitability and Liquidity Ratios

Ratio analysis uses figures from the income statement and balance sheet to assess a business's **profitability** (how efficiently it generates profit) and **liquidity** (its ability to meet short-term obligations). Ratios are most meaningful when compared to previous years, industry benchmarks, or competitor data — a ratio in isolation tells you little.

Profitability Ratios

Gross Profit Margin (GPM) measures the percentage of revenue retained after direct production costs:

$$GPM = \frac{Gross\ Profit}{Revenue} \times 100$$

Net Profit Margin (NPM) measures the percentage of revenue retained after all operating costs:

$$NPM = \frac{Net\ Profit}{Revenue} \times 100$$

Return on Capital Employed (ROCE) measures how efficiently the business uses its total long-term finance to generate profit — the most important overall profitability measure:

$$ROCE = \frac{PBIT}{Capital\ Employed} \times 100$$

where PBIT = Profit Before Interest and Tax, and $Capital\ Employed = Total\ Equity + Non\text{-}current\ Liabilities$

Liquidity Ratios

Current Ratio measures the ability to pay short-term debts using all current assets:

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

The ideal range is **1.5–2:1**. A ratio below 1 indicates the business cannot cover its short-term debts. A very high ratio may indicate poor use of assets (excess cash or inventory).

Acid Test Ratio (Quick Ratio) is a more stringent test of liquidity — it excludes inventory because inventory is the least liquid current asset:

$$Acid\ Test\ Ratio = \frac{Current\ Assets - Inventory}{Current\ Liabilities}$$

The ideal is approximately **1:1**. Below 1 suggests liquidity problems even before slow-moving stock is considered.

WORKED EXAMPLE

Worked Example — Calculating All Five Ratios

Using the financial data below:

Item	$000
Revenue	500
Gross Profit	300
Profit Before Interest and Tax (PBIT)	120
Net Profit (after tax)	96
Non-current Assets	400
Current Assets	170
Inventory	60
Current Liabilities	90
Non-current Liabilities	150
Total Equity	330

Capital Employed = Total Equity + Non-current Liabilities = $330,000 + $150,000 = $480,000

Ratio	Formula	Calculation	Result
Gross Profit Margin	(300 / 500) · 100	60%	60%
Net Profit Margin	(96 / 500) · 100	19.2%	19.2%
ROCE	(120 / 480) · 100	25%	25%
Current Ratio	170 / 90	1.89	1.89:1
Acid Test Ratio	(170 - 60) / 90	1.22	1.22:1

Interpretation: The business is profitable with a healthy 60% gross margin. Net profit margin is 19.2%, suggesting significant operating expenses (rent, salaries, etc.). ROCE of 25% is strong — the business earns $0.25 for every $1 of capital employed. Current ratio (1.89:1) is within the ideal 1.5–2:1 range. Acid test (1.22:1) exceeds the 1:1 benchmark, confirming the business can meet its short-term obligations without relying on inventory sales.

EXAM ALERT

When answering ratio questions in Paper 2, always: (1) state the formula; (2) substitute the values; (3) calculate the result; (4) **interpret** the result — what does it mean for this specific business? Simply producing a number earns few marks. The interpretation — especially in comparison to a previous year or industry average — is where high-band marks are awarded.

IB TIP

The difference between gross profit margin and net profit margin reveals the burden of operating expenses. If GPM is high (e.g., 60%) but NPM is low (e.g., 8%), the business's trading is efficient but its overhead costs are eroding profit. This suggests a focus on cost control for items such as rent, marketing, or admin rather than procurement.

Cash Flow

Cash flow refers to the movement of money into and out of a business over time. Understanding the distinction between cash and profit — and managing cash flow proactively — is essential for business survival.

Cash vs. Profit

A business can be **profitable but cash-poor**. Profit is an accounting concept that matches revenues with costs over a period, regardless of when cash actually changes hands. Cash flow is about the timing of actual receipts and payments.

A business may show a profit on its income statement but still run out of cash if:

- It sells goods on credit (revenue is recorded before cash is received)
- It has purchased large amounts of inventory (cash paid out but not yet converted to revenue)
- It has made a major capital investment (cash leaves the business immediately; the cost is spread over years through depreciation)

MEMORISE THIS

Key cash flow terms:

- **Cash inflows** — money received: sales receipts, loans received, proceeds from selling assets
- **Cash outflows** — money paid: wages, rent, raw materials, loan repayments, tax payments
- **Net cash flow** = Cash inflows - Cash outflows (for a period)
- **Opening balance** = Closing balance from the previous period
- **Closing balance** = Opening balance + Net cash flow

Cash Flow Forecast

A **cash flow forecast** is a forward-looking table showing expected cash inflows and outflows for each period (usually monthly), and the resulting cash balance. It allows managers to identify in advance when the business may run short of cash and take action before a crisis occurs.

WORKED EXAMPLE

Worked Example — 3-Month Cash Flow Forecast

A new retail business opens in January. Data for Q1:

	January ($)	February ($)	March ($)
Cash Inflows			
Sales receipts	8,000	12,000	15,000
Capital introduced	10,000	0	0
Total Inflows	**18,000**	**12,000**	**15,000**
Cash Outflows			
Rent	2,000	2,000	2,000
Wages	3,500	3,500	3,500
Inventory purchases	7,000	5,000	6,000
Marketing	2,500	500	500
Other expenses	800	800	800
Total Outflows	**15,800**	**11,800**	**12,800**
Net Cash Flow	**2,200**	**200**	**2,200**
Opening Balance	**0**	**2,200**	**2,400**
Closing Balance	**2,200**	**2,400**	**4,600**

Interpretation: The business maintains a positive closing balance throughout Q1. January's large capital introduction funds the initial inventory and marketing spend. The business is building its cash position month by month as sales grow.

Causes of Cash Flow Problems

- **Overtrading** — growing too fast without sufficient working capital to fund the increased activity
- **Poor debtor management** — customers paying late or not at all, leaving cash tied up in unpaid invoices
- **Seasonal demand** — businesses in seasonal industries face months of low or no inflows while fixed costs continue
- **Unexpected costs** — machinery breakdown, emergency repairs, or sudden cost increases
- **Excessive inventory** — buying too much stock ties up cash and creates storage costs

Solutions to Cash Flow Problems

Problem	Solution
Short-term cash shortfall	Bank overdraft — flexible, immediate, interest only on amount used
Cash tied up in assets	Sale of assets — one-time release of cash; may sacrifice future productive capacity
Slow debtor collection	Improve debtor management: offer early payment discounts, tighten credit terms, use debt factoring
Outflows arriving too early	Delay payments to creditors — negotiate extended payment terms with suppliers
Structural cash shortfall	Arrange a bank loan — more formal, planned source of medium-term finance

⚠ **EXAM ALERT**

Do not confuse a cash flow problem with a profitability problem. A profitable business can fail through poor cash flow management (this is called **insolvency**). Similarly, a business making a short-term accounting loss may have healthy cash flows. IB Paper 2 case studies frequently present businesses that are profitable but cash-strapped — read the data carefully before diagnosing the problem.

Investment Appraisal

When a business is considering a major capital investment — a new machine, a new building, an acquisition — it must assess whether the investment is financially worthwhile. **Investment appraisal** provides quantitative methods for evaluating the financial returns from a proposed investment and comparing alternative investment options.

All three IB SL methods require an initial estimate of: (1) the **initial investment (outflow)**, and (2) the expected **net cash inflows** generated each year over the investment's life.

Payback Period

The **payback period** is the length of time it takes for the cumulative net cash inflows from an investment to equal the initial outlay. It answers the question: "How quickly do we get our money back?"

$$Payback\ Period = \frac{Initial\ Investment}{Annual\ Net\ Cash\ Inflow}$$

This formula applies only when annual cash inflows are constant. When inflows vary by year, payback is found by accumulating inflows year by year until the initial outlay is recovered.

Advantages: Simple to calculate and understand; favours projects with quick returns, reducing risk exposure.

Disadvantages: Ignores the time value of money; ignores all cash flows after the payback point; does not measure overall profitability.

Average Rate of Return (ARR)

The **ARR** expresses the average annual profit from an investment as a percentage of the initial outlay, allowing comparison with alternative uses of money (e.g., leaving funds in a bank account):

$ARR = \frac{Average\ annual\ profit}{Initial\ investment} \times 100$

where average annual profit = (Total net cash inflows - Initial investment) / number of years.

Advantages: Considers all cash flows over the entire life of the investment; produces a percentage comparable to interest rates.

Disadvantages: Ignores the time value of money; uses averages, which may mask uneven cash flows.

Net Present Value (NPV)

NPV accounts for the **time value of money** — the principle that $1 received today is worth more than $1 received in the future, because money available now can be invested to earn a return. NPV discounts future cash flows back to their present value using a **discount factor** reflecting the cost of capital (or required rate of return).

$NPV = \sum_{t=1}^{n} \frac{CF_t}{(1+r)^t} - Initial\ Investment$

In practice, IB students use a **discount table** that provides the factor by which to multiply each year's cash flow. If NPV is positive, the investment earns more than the cost of capital and is financially worthwhile. If negative, it destroys value.

WORKED EXAMPLE

Worked Example — Payback, ARR, and NPV

A business is considering buying a machine costing $60,000. Expected annual net cash inflows over 4 years are:

Year	Net Cash Inflow ($)	Discount Factor (10%)	Present Value ($)	Cumulative CF ($)
1	20,000	0.909	18,180	20,000
2	20,000	0.826	16,520	40,000
3	15,000	0.751	11,265	55,000
4	15,000	0.683	10,245	70,000
Total	**70,000**		**56,210**	

Payback Period:

By end of Year 2: cumulative inflows = $40,000 (still $20,000 short)

Into Year 3, the remaining $20,000 must be recovered from $15,000 annual inflow:

$$Payback = 2 \text{ years} + \frac{20000}{15000} \times 12 \text{ months} \approx 2 \text{ years } 16 \text{ months}$$

Since 20,000 / 15,000 = 1.33 years, payback = 3 years 4 months (i.e., partway through Year 4). The full 20,000 shortfall is not covered within Year 3 because Year 3 only generates 15,000. Payback is completed in Year 4:

Remaining after Year 3: $20,000 - $15,000 = $5,000. Into Year 4 ($15,000): $5,000 / $15,000 = 0.33 years = 4 months.

$$Payback = 3 \; years \; 4 \; months$$

ARR:

$$\text{Total net inflows} = 70{,}000 \; \text{Total net profit} = 70{,}000 - 60{,}000 = 10{,}000$$
$$\text{Average annual profit} = 10{,}000 \div 4 = 2{,}500 \; ARR = \frac{2500}{60000} \times 100 = 4.17\%$$

NPV:

$$Total \; PV \; of \; inflows = \$18,180 + \$16,520 + \$11,265 + \$10,245 = \$56,210$$
$$NPV = \$56,210 - \$60,000 = -\$3,790$$

Interpretation: The payback period of 3 years 4 months returns the initial outlay within the machine's 4-year life. However, the ARR of 4.17% is low — if the firm's cost of capital is higher than 4.17%, this investment does not meet the required return. The negative NPV of -$3,790 confirms this: at a 10% discount rate, the project destroys value. The business should **not** proceed with this investment at a 10% cost of capital, or should seek cost reductions or higher cash flows.

Comparison of Investment Appraisal Methods

	Payback Period	ARR	NPV
What it measures	Speed of recovery of initial investment	Average annual return as % of initial investment	Net value created after discounting for time value of money
Accounts for time value of money?	No	No	Yes
Considers all cash flows?	No (ignores post-payback)	Yes	Yes
Output	Time (years/months)	Percentage (%)	Monetary value ($)
Best for	Risk-averse businesses; projects where liquidity matters	Quick comparison against interest rates	Financially sophisticated decisions; large, long-term projects
Limitation	Ignores total profitability	Ignores timing of cash flows	Requires a reliable discount rate; more complex

IB TIP

IB examiners expect you to evaluate investment appraisal methods — not just calculate. A common evaluation point: NPV is theoretically superior because it accounts for the time value of money and considers all cash flows. However, payback is often preferred in practice by small businesses due to its simplicity and its focus on liquidity and risk reduction.

Practice Questions

The following questions cover all subsections of Unit 3. Attempt each question before revealing the model answer.

▶ Question 1 — Sources of Finance: Justify a source for a small business (concept)
▶ Question 2 — Break-even Analysis: Calculate BEP and margin of safety (calculation)
▶ Question 3 — Ratio Analysis: Calculate and interpret ratios (calculation + interpretation)
▶ Question 4 — Cash Flow: Identify problems and recommend solutions (concept)
▶ Question 5 — Investment Appraisal: Compare payback and NPV for a decision (concept + evaluation)
▶ Question 6 — Income Statement: Identify the correct placement of items (concept)