Financial Statement Analysis

Primary Financial Statements

Exam Focus

- Understand the primary financial statements:
  - Balance sheet
  - Income statement
  - Cash flow statement
  - Statement of OCI
  - Reconciliation of stockholders' equity
- Linkages between B/S and I/S

The basics from the prerequisite readings you need before starting the main syllabus

Primary Financial Statements

1. The balance sheet
2. The income statement
3. Statement of comprehensive income
4. The cash flow statement
5. Statement of changes in shareholders' equity
6. Footnotes

The Balance Sheet

Alternative names: statement of financial **position**, statement of financial condition

The balance sheet equation:

Everything the company:

- Owes to third parties

Future outflows of benefits

ASSETS = LIABILITIES + EQUITY

Everything the company:

- Owns
- Is owed

Future inflows of benefits

Equation always holds due to double-entry bookkeeping

The Balance Sheet: Stockholder's Equity

Alternative names: statement of financial **position**, statement of financial condition

The balance sheet equation:

ASSETS – LIABILITIES = EQUITY

- Net assets
- Net worth

Residual interest:

- Book value

The Balance Sheet Equation

ASSETS = LIABILITIES + EQUITY

ASSETS	LIABILITIES	EQUITY
Noncurrent Assets	Noncurrent Liabilities	Contributed Capital
+	+	+
Current Assets	Current Liabilities	Accumulate Other Comprehensive Income
		+
		Retained Earnings

Current = within one year or one operating cycle (if greater)

Measurement Basis

Assets and liabilities may be recorded at:

- Historical cost
- Amortized cost
- Realizable value
- Present value
- Fair value

Accruals Concept

- Impacts B/S and I/S **not** statement of cash flows
- Revenue recorded when earned, not when customer pays
- Expenses:
  1. Expenses are recorded on the income statement in the same period that related revenues are earned
  2. Expenses not directly tied to revenues should be reported on the income statement in the same period as their use
- Impact I/S: earnings ≠ cash flows
- Impact B/S: assets and liabilities

Accruals Examples

1. Goods sold on credit = trade receivables (accounts receivable in B/S)
2. Warranty provisions recorded on sale, not when goods are replaced/repaired
3. Provisions for doubtful debt, estimated at time of credit sale
4. Cost of sales (COGS) reflects the number of units sold
5. PP&E and intangibles recorded in balance sheet and expensed to income statement to match against revenues (dep^{n} & amort^{n})
6. Costs incurred but not paid = B/S liabilities (e.g., payables)

Balance Sheet Components and Format

Balance Sheet	$m		$m
Current assets		**Current liabilities**	70
Cash	50	**Long-term liabilities**	180
Others	100		250
	150	**Owners' equity**	
Long-lived assets		Contributed capital	100
Investments	20	Retained earnings	70
PP&E	200		170
Intangibles	50		
Total assets	420	**Liabilities and equity**	420

Typical Current Assets

- Cash and cash equivalents
- Net receivables (accounts receivable, trade receivables)
- Other receivables
- Inventories
- Marketable securities
- Prepaid expenses
- Assets held for sale

Net Receivables

- Two issues:

1. The company must estimate the amount of AR it will not be able to collect = allowance for doubtful debts
2. Some AR default and are written off

- Allowance for doubtful debts = contra account
- Net receivables = amounts owed by customers – allowance for doubtful debts

Allowance for Doubtful Debts: Example

- Anhyzer, Inc., had amounts owed by customers due to credit sales of $120m at the end of 20X1. Anhyzer provides for doubtful debts at 10% of outstanding balances based on prior experience.
- At year-end 20X2, amounts owed by customers increased to $200m. The doubtful debt allowance remained at 10%.
- During 20X2, $4m of debts previously provided for were written off.

Compute the bad and doubtful debt expense in the income statement.

Allowance for Doubtful Debts: Solution

$120m × 10% = $12m

	$m
Allowance for doubtful debt y/e 20X1	12
Accounts receivable written off	(4)
Income statement expense	12
Allowance for doubtful debt y/e 20X2	20

↓Doubtful debt allowance $4m

↓Accounts receivable $4m

$200m × 10% = $20m

20X2 B/S net receivables = $200m – $20m = $180m

Typical Noncurrent Assets

- Intangible assets
- Property, plant, and equipment
- Right-of-use assets (leases)
- Investment property (IFRS)
- Equity accounted investments (associates/affiliates)
- Equity investments in subsidiaries
- Financial assets
- Deferred tax assets

Typical Current Liabilities

- Trade payables (accounts payable)
- Short-term financial liabilities (notes payable)
- Tax payable
- Accrued liabilities
- Other liabilities
- Unearned revenue
- Long-term debt due within one year
- Lease liabilities due within one year

Typical Noncurrent Liabilities

- Financial liabilities
  - Loans
  - Bonds issued
- Lease liabilities due after one year
- Pension provisions (funded status)
- Deferred tax liabilities

Typical Equity Components

- Contributed capital
  - Common stock at par
  - Additional paid-in capital
- Accumulated other comprehensive income
- Treasury stock
- Retained earnings
- Noncontrolling interest (minority interest)

The Income Statement

- Alternate names: P&L (profit and loss statement), statement of operations, statement of earnings
- Dynamic: spans the period between balance sheets
- Shows performance
- Accruals concept
- Income statement equation:

Net revenue/sales/turnover
Other income
Gains

EARNINGS = REVENUES – EXPENSES

Net income
Net profit

Expenses
Losses

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The Income Statement

- Required separate presentation on face of I/S
  - Revenue
  - Operating cost
  - Finance costs
  - Tax expense
- Multistep = gross profit line
- Expenses
  - Grouping by nature: wages, depreciation, etc.
  - Grouping by function: COGS, SG&A, R&D, etc.

Multistep Income Statement

\+ Net revenue
– Cost of goods sold
Gross profit
– Selling, general, and administrative expenses
– Research and development
Operating profit
\+ Other income and revenues
– Financing costs
+/– Unusual or infrequent items
Income before tax (earnings before tax)

Operating or non-operating? Analyze items

Multistep Income Statement

Income before tax

– Provision for income taxes ——— "The line"

Income from continuing operations

+/– Income from discontinued operations

+/– Share of profit of associates

– Noncontrolling interest ——— "The bottom line"

Net income

Net of tax

Non-Operating Items

Financial service companies → Operating activities

Nonfinancial service companies → Non-operating income "other income"

Interest

Dividends

Gains/losses on disposal

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The Link Between I/S and B/S

- Retained earnings = equity item
- Cumulative profits retained in the company

Retained Earnings	**$m**
Retained earnings in last year's B/S	200
Net income	80
Dividends	(20)
Retained earnings in this year's B/S	260

Example

Inventory of $20m was sold on credit for $30m

- Dr. COGS $20m I/S
  - CR inventory $20m B/S
- Dr. accounts receivable $30m B/S
  - Cr. revenue $30m I/S

I/S	
↑ revenue	$30m
↑ cost of sales (COGS)	($20m)
↑ net income	$10m

ASSETS = LIABILITIES + EQUITY

↓ inventory	$20m
↑ accounts receivable	$30m
↑ net	$10m

↑ retained earnings $10m

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Example

90 days later, the customer settles their debt:

- Dr. cash $30m B/S
    - Cr. accounts receivable $30m B/S

ASSETS = LIABILITIES + EQUITY

↑ cash	$30m
↓ accounts receivable	$30m
Net	$0m

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Comprehensive Income

- Not all gains and losses pass through the I/S
- Some are taken to accumulated other comprehensive income (AOCI)
- Either one statement or two
- Examples:
    - Defined benefit pension plans = remeasurements
    - Cumulative translation adjustments
    - Cash flow hedges
    - Unrealized gains and losses on available-for-sale securities (FVOCI)
    - Revaluation gains and losses (IFRS)

Comprehensive Income

Comprehensive income = net income + <u>other comprehensive income (OCI)</u>

	Net income from income statement	X
OCI	Δ Foreign currency translation adjustment	X/(X)
OCI	Δ Defined benefit pension remeasurements	X/(X)
OCI	Δ Unrealized gains or losses on derivatives contracts accounted for as hedges	X/(X)
OCI	Δ Unrealized gains and losses on available-for-sale/fair value through OCI securities	X/(X)
	Comprehensive income	X

The Cash Flow Statement

- Covers the same time period as the I/S
- Reconciles the change in B/S cash
- Earnings ≠ cash due to the accruals concept

	$m
CFO (OCF)	100
CFI	(50)
CFF	(20)
Change in balance sheet cash	30
Last year's B/S cash	50
This year's B/S cash	80

Statement of Stockholders' Equity

	Preferred Stock	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accum' OCI	Noncontrolling Interest	Total
Balance @ last y/e	100	200	400	640	(50)	200	(50)	1,440
Net income				200			(10)	190
OCI net loss						(50)		(50)
Dividends				(60)				(60)
Stock-based compensation			40					40
Stock issue		10	50					60
Treasury stock					(10)			(10)
Balance @ this y/e	100	210	490	780	(60)	150	(60)	1,610