Reading 22: Understanding Balance Sheets

Learning Outcome Statements

- Covered
  - 22a, 22b, 22c, 22d, 22e, 22f, 22g, 22h
- Not Covered
  - None

Balance Sheet

- Statement of financial position
- Snapshot of assets and liabilities
- Analysts use to evaluate potential
- Composed of:
  - Assets
  - Liabilities
  - Equity

Elements of Balance Sheet

Assets

Resources expected to benefit the company in the future

Assets and liabilities should be recognized on financial statements only if it is probable that the future economic benefits associated with them will flow to, or from, the firm and that the item's cost or value can be measured with reliability.

Liabilities

Expected outflow of assets in the future

Elements of Balance Sheet

Equity

- Shareholder claim on net assets

- Also referred to as:
  - Stockholders' equity
  - Net assets
  - Owners' equity

- Generated through:
  - Operating activities
  - Financing activities

Practice Question

Which of the following is *not* a common alternative name for equity on a balance sheet?

A. Stockholders' equity
B. Net liabilities
C. Owners' equity

Practice Question

Which of the following is a resource expected to provide economic benefit in the future for a company?

A. Equity
B. Liabilities
C. Assets

Uses and Limitations of Balance Sheet

Uses:

- Current financial position
- Used by investors and lenders

Limitations:

- Presentation is subject to management discretion
- Assets at historical cost
- Omits certain factors

Practice Question

Which of the following is *not* a limitation of the balance sheet for an analyst's use?

A. Presentation is entirely objective.
B. Assets are not typically valued at current fair value.
C. Important information about the company is not fully reflected.

Alternative Formats of Balance Sheet Presentation

1. Report format:
- All in single column

2. Account format:
- Assets on left
- Liabilities and Equity on right

3. Classified balance sheet:
- Subdivided by categories

4. Liquidity-based presentation:
- IFRS-specific

Practice Question

Which of the following balance sheet presentation formats reports assets on the left-hand side and liabilities and equity on the right-hand side?

A. Report format
B. Classified balance sheet
C. Account format

Balance Sheet Presentation and Measurement Bases

- Assets and Liabilities divided based on how current they are
  - Order of presentation optional
  - Analysts must interpret how assets and liabilities are presented
  - Measurement bases may not accurately represent company

Current Assets

- Converted to cash in 1 operating cycle or year

Operating cycle

- Convert funds to product to sale
- Assets are ordered by liquidity

Cash and cash equivalents

- Mature in 90 days or less
- Amortized cost or fair value

Marketable securities

- Publicly traded investments
- Presented at market price

Current Assets

Trade Receivables

- Expected payments for services rendered
- At net expected value

Inventories

- Physical stock in all stages
- IFRS—lower of cost or NRV
- GAAP—lower of cost or NRV unless they are measured using the last-in, first-out (LIFO) or retail inventory methods.
- IFRS allows only the first-in, first-out (FIFO), weighted average cost, and specific identification methods.
- US GAAP also allows last-in, first-out (LIFO) as an additional inventory valuation method. The LIFO method is not allowed under IFRS.

Current Assets

Deferred Tax Assets (DTA)

- Taxes payable greater than tax expense
- Considered prepaid taxes

Prepaid Expenses

- Operating expenses paid in advance
- Once expensed, asset is reduced

Practice Question

If a company pays cash before it recognizes the associated expense, it results in a(n):

A. Unearned revenue liability.
B. Accounts receivable asset.
C. Prepaid expense asset.

Noncurrent Assets

- Converted into cash in over a year
- Long-term perspective

Property, Plant, and Equipment (PP&E)

- Physical long-term assets
  - Land, plant, machinery, equipment, and any natural resources
  - IFRS—cost or revaluation
  - Method must be consistent within company

- GAAP—only cost method

Noncurrent Assets

Investment Property

- Property owned for rental or investment income
- IFRS—cost or fair value
  - Method must be consistent throughout company
  - Fair valuation must be reliable to choose that method

Intangible Assets

- Assets that aren’t physically observable
- IFRS—cost or revaluation method
- GAAP only allows the cost model
- Disclosures important

Noncurrent Assets

1. Identifiable Intangible Assets

- Acquired, typically finite
- IFRS—benefits must be probable and costs estimable
- Does not apply to internally developed
- If set useful period, amortized
- No set useful period—tested for impairment
- The following costs are expensed
    - Start-up and training
    - Overhead
    - Advertising
    - Relocation

Noncurrent Assets

2. Unidentifiable Intangible Assets (e.g., goodwill)

- Not purchased, indefinite life
- Goodwill equals extra paid over value
    - Goodwill is tested for impairment:

      Value goodwill < Carrying value = Impairment
    - Noncash expense

Accounting goodwill: Purchase price exceeds fair value of assets

Economic goodwill: Not on balance sheet, reflects expected performance

Noncurrent Assets

Financial Instruments

- Contract that creates asset, liability, or equity
- Assets include investments and receivables
- Liabilities include bonds and notes payable

Mark-to-Market

- Adjust book value to reflect market value
- Trading and available-for-sale

Practice Question

Which of the following is *least likely* to be considered a current asset?

A. Cash
B. Property, plant, and equipment
C. Accounts receivable

Current Liabilities

Obligations due within 1 year or operating cycle

Trade payables (accounts payable)

- Owed to suppliers from credit purchases
- Analysts should examine trends

Notes payable (current borrowings)

- Owed to creditors
- Can be either current or noncurrent

Current portion of long-term liabilities

- Portion of notes payable due in the current operating cycle

Current Liabilities

Income taxes payable

- Taxes due that haven’t been paid

Accrued liabilities

- Expenses incurred but not yet paid

Unearned revenue (deferred revenue or deferred income)

- Company has been paid for services not yet rendered
- Future obligation to provide services or return payment

Practice Question

If a company receives cash before it recognizes the associated revenue, it results in a(n):

A. Unearned revenue liability.
B. Accounts receivable asset.
C. Prepaid expense asset.

Noncurrent Liabilities

- Not expected to be paid within 1 operating cycle or year
- Long-term financing

Long-term financial liabilities

- Fair value or amortized cost

Deferred tax liabilities

- Tax expense > Taxes payable
- Taxes paid per return less than owed per statements
- Paid in a future cycle

Practice Question

Which of the following is *least likely* a current liability?

A. Trade payables expected to be settled within 18 months after the balance sheet date
B. Financial liabilities expected to be settled within 1 year after the balance sheet date, whose original term was 3 years
C. A liability that the entity has an unconditional right to defer settlement of for 2 years after the balance sheet date

Working Capital

- Current assets – Current liabilities
- Covers day-to-day operations
- Too low—might struggle to operate
- Too high—inefficient

Marketable Securities

Subsequent to initial acquisition, marketable securities may be measured at (1) fair value or (2) amortised cost.

1. Fair value through comprehensive income (IFRS) or available-for-sale securities (U.S. GAAP):

- Under IFRS, this category includes debt investments, and equity investments as long as they are classified so irrevocable at acquisition.
- Under U.S. GAAP, AFS classification can be used only for debt securities.
- Fair value on balance sheet
- Actual income reported on income statement
- Unrealized income in comprehensive income

2. Held-to-maturity securities (IFRS and U.S. GAAP):

- Debt—will hold until the end
- Amortized cost
- Only interest income and realized gains and losses are recognized

Marketable Securities

3. Fair value through profit or loss (IFRS) or trading securities (U.S. GAAP):

- Under IFRS this category includes:
  - Securities not assigned to either of the other two measurement categories described previously.
  - In addition, IFRS allows a company to make an irrevocable election at acquisition to measure a financial asset in this category.
- Under U.S. GAAP this category includes:
  - All investments in equity securities (other than investments giving rise to ownership positions that confer significant influence over the investee).
  - Debt securities held for trading.

- Management plans to trade for profit
- Fair market value on balance sheet
- All income and unrealized gains and losses reported on the income statement

Marketable Securities

Example:

Panorama Inc. invests $5,000,000 in a 10% semiannual coupon fixed-income security. After six months, Panorama receives the first coupon payment of $250,000. Additionally, interest rates have declined over the period, and the value of the securities has increased by $1,000,000.

Illustrate how ownership of this bond will affect Panorama's financial statements under each of the three classifications of marketable securities.

Marketable Securities

Solution:

IFRS Categories	Measured at Cost or Amortized Cost	Measured at Fair Value through Other Comprehensive Income	Measured at Fair Value through Profit and Loss
US GAAP Comparable Categories	Held to Maturity	Available- for- Sale Debt Securities	Trading Debt Securities

Balance Sheet			
Assets			
Cash	250,000	250,000	250,000
Cost of securities	5,000,000	5,000,000	5,000,000
Unrealized gains (losses)	1,000,000	1,000,000	
	6,250,000	**6,250,000**	**5,250,000**
Equity			
Paid-in-capital	5,000,000	5,000,000	5,000,000
Retained earnings	1,250,000	250,000	250,000
Other comprehensive income		1,000,000	
	6,250,000	**6,250,000**	**5,250,000**
Income Statement			
Interest income	250,000	250,000	250,000
Unrealized gains (losses)	1,000,000		
	1,250,000	**250,000**	**250,000**

Shareholders' Equity

- Common stock—par value listed separately
  - Authorized shares: Total shares that can be issued
  - Issued shares: Total shares sold
  - Outstanding shares: Shares issued minus shares repurchased

Preferred shares

- Dividends set at percentage of par
- Common shares subordinate
- Hybrid between equity and debt

Shareholders' Equity

Retained earnings

Total net income over life of company not redistributed to shareholders

Treasury shares

Repurchased shares

- Reduces equity and shares outstanding
- No dividends or voting rights

Noncontrolling interest (minority interest)

Share of assets in a subsidiary partially owned

Shareholders’ Equity

Accumulated other comprehensive income

All transactions that change owners’ equity

- Already recognized on income statement plus
- Shareholder-specific transactions

Practice Question

Which of the following is *least likely* included in the statement of changes in shareholders’ equity?

A. Accumulated other comprehensive income
B. Treasury stock
C. Interest received

Practice Question

Which of the following will *most likely* lead to a decrease in equity?

A. Dividends paid
B. Profits
C. Owners' contribution

Statement of Changes in Owners' Equity

- Effects of all increases and decreases in equity
- IFRS: includes
  - Comprehensive income
  - Accounting change effects
  - Transactions with shareholders
  - Reconciliation to last year
- GAAP: analyze changes in each component

Statement of Changes in Owners' Equity

	Common Stock $	Retained Earnings $	Accumulated Other Comprehensive Income $	Total $
Beginning balance	30,000	22,000	-3,000	**49,000**
Components of comprehensive income				
Net income		4,000		4,000
Unrealized loss on AFS Securities			-100	-100
Unrealized loss on cash flow hedge			-150	-150
Minimum pension liability adjustment			-75	-75
Translation adjustment			90	90
Comprehensive income				**3,765**
Issuance of common stock	3,000			**3,000**
Repurchases of common stock	-8,000			**-8,000**
Dividends		-2,500		**-2,500**
Ending balance	**25,000**	**23,500**	**-3,235**	**45,265**

Uses and Analysis of Balance Sheets

Contain information on liquidity, solvency, and resources.

- Liquidity: short-term obligations
- Solvency: long-term obligations

Analyze using:

- Common-size analysis
- Ratio analysis

Common-Size Analysis

Items listed as percentage of total assets

Uses:

- Time series
- Cross-sectional

Practice Question

Which of the following statements regarding a vertical common-size balance sheet is *least accurate*?

A. It allows an analyst to perform cross-sectional analysis across firms within the same industry.
B. It allows an analyst to perform time-series analysis.
C. It expresses each balance sheet item as a percentage of noncurrent assets.

Balance Sheet Ratios

Two main categories:

Liquidity ratios—ability to meet short-term

Solvency ratios—ability to meet *long-term*

High liquidity ratios = able to meet short-term obligations

Liquidity ratios	Numerator	Denominator
Current ratio	Current assets	Current liabilities
Quick ratio (acid test ratio)	Cash + marketable securities + receivables	Current liabilities
Cash ratio	Cash + marketable securities	Current liabilities

Balance Sheet Ratios

Higher solvency ratios, on the other hand, are *undesirable* and indicate that the company is highly leveraged and risky.

	Numerator	Denominator
Long-term debt-to-equity ratio	Total long-term debt	Total equity
Debt-to-equity ratio	Total debt	Total equity
Total debt ratio	Total debt	Total assets
Financial leverage ratio	Total assets	Total equity

Practice Question

Considering the following:

Cash = $22,250
Marketable securities = $13,480
Receivables = $4,330
Inventory = $4,240
Noncurrent assets = $79,700
Current liabilities = $31,450
Long-term liabilities = $33,340
Equity = $59,210

The company's current ratio is *closest to*:
A. 1.28.
B. 0.98.
C. 1.41.

Practice Question

Considering the following:

Cash = $22,250
Marketable securities = $13,480
Receivables = $4,330
Inventory = $4,240
Noncurrent assets = $79,700
Current liabilities = $31,450
Long-term liabilities = $33,340
Equity = $59,210

The company's financial leverage ratio is *closest to*:
A. 2.09.
B. 1.35.
C. 0.75.

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Practice Questions with Solutions

Practice Question

Which of the following is *not* a common alternative name for equity on a balance sheet?

A. Stockholders' equity
B. Net liabilities
C. Owners' equity

Answer: B
Equity is also commonly known as:

- Stockholders' equity
- Net assets
- Owners' equity

Practice Question

Which of the following is a resource expected to provide economic benefit in the future for a company?

A. Equity
B. Liabilities
C. Assets

Answer: C
An asset is expected to provide future benefit.

Practice Question

Which of the following is *not* a limitation of the balance sheet for an analyst’s use?

A. Presentation is entirely objective.
B. Assets are not typically valued at current fair value.
C. Important information about the company is not fully reflected.

Answer: A

- Presentation is subject to management discretion
- Assets at historical cost
- Omits certain factors

Practice Question

Which of the following balance sheet presentation formats reports assets on the left-hand side and liabilities and equity on the right-hand side?

A. Report format
B. Classified balance sheet
C. Account format

Answer: C
The account format presents assets on the left and liabilities and equity on the right-hand side of the balance sheet.

Practice Question

If a company pays cash before it recognizes the associated expense, it results in a(n):

A. Unearned revenue liability.
B. Accounts receivable asset.
C. Prepaid expense asset.

Answer: C
If a company pays cash before it recognizes the associated revenue, it results in a prepaid expense asset.

Practice Question

Which of the following is *least likely* to be considered a current asset?

A. Cash
B. Property, plant, and equipment
C. Accounts receivable

Answer: B
Cash and AR are liquid and typically can be converted to cash within 1 year or cycle.

Practice Question

If a company receives cash before it recognizes the associated revenue, it results in a(n):

A. Unearned revenue liability.
B. Accounts receivable asset.
C. Prepaid expense asset.

Answer: A
If a company receives cash before it recognizes the associated revenue, it results in an unearned revenue liability.

Practice Question

Which of the following is *least likely* a current liability?

A. Trade payables expected to be settled within 18 months after the balance sheet date
B. Financial liabilities expected to be settled within 1 year after the balance sheet date, whose original term was 3 years
C. A liability that the entity has an unconditional right to defer settlement of for 2 years after the balance sheet date

Answer: C
International Accounting Standards allow some liabilities such as trade payables and accruals for employees to be classified as current liabilities even though they might not be settled within 1 year. Financial liabilities expected to be settled within 1 year are classified as current liabilities even if their original term was more than 1 year.
If the entity has an unconditional right to defer the settlement of the liability for at least 1 year after the balance sheet date, it must recognize it as a noncurrent liability.

Practice Question

Which of the following is *least likely* included in the statement of changes in shareholders' equity?

A. Accumulated other comprehensive income
B. Treasury stock
C. Interest received

Answer: C
Interest received is typically listed on the income statement, not in the statement of changes in shareholders' equity.

Practice Question

Which of the following will *most likely* lead to a decrease in equity?

A. Dividends paid
B. Profits
C. Owners' contribution

Answer: A
Profits and owners' contributions lead to an **increase** in equity.

Practice Question

Which of the following statements regarding a vertical common-size balance sheet is *least accurate*?

A. It allows an analyst to perform cross-sectional analysis across firms within the same industry.
B. It allows an analyst to perform time-series analysis.
C. It expresses each balance sheet item as a percentage of noncurrent assets.

Answer: C
A vertical common-size balance sheet expresses each balance sheet item as a percentage of **total assets**.

Practice Question

Considering the following:
Cash = $22,250
Marketable securities = $13,480
Receivables = $4,330
Inventory = $4,240
Noncurrent assets = $79,700
Current liabilities = $31,450
Long-term liabilities = $33,340
Equity = $59,210

The company's current ratio is *closest to*:
A. 1.28.
B. 0.98.
C. 1.41.

Answer: C
Current ratio = Current assets/Current liabilities
Current assets = $22,250 + $13,480 + $4,330 + $4,240 = $44,300
Current ratio = 44,300/31,450 = 1.4086

Practice Question

Considering the following:
Cash = $22,250
Marketable securities = $13,480
Receivables = $4,330
Inventory = $4,240
Noncurrent assets = $79,700
Current liabilities = $31,450
Long-term liabilities = $33,340
Equity = $59,210

The company's financial leverage ratio is *closest to*:
A. 2.09.
B. 1.35.
C. 0.75

Answer: A
Financial leverage ratio = Total assets/Total equity
Total assets = $44,300 + $79,700 = $124,000
Financial leverage ratio = 124,000/59,210 = 2.0942