

Chapter 3

Financial Statement Analysis

Hillier, Fundamentals of Corporate Finance
4e

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Fundamentals of Corporate Finance

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Fourth Edition

Chapter Overview

The Annual Report

Ratio Analysis

The Du Pont Identity

Using Financial Statement Information

The Annual Report



The Three Main Reports

Statement of Financial
Position

The Income Statement

Statement of Cash Flows

The Statement of Financial Position

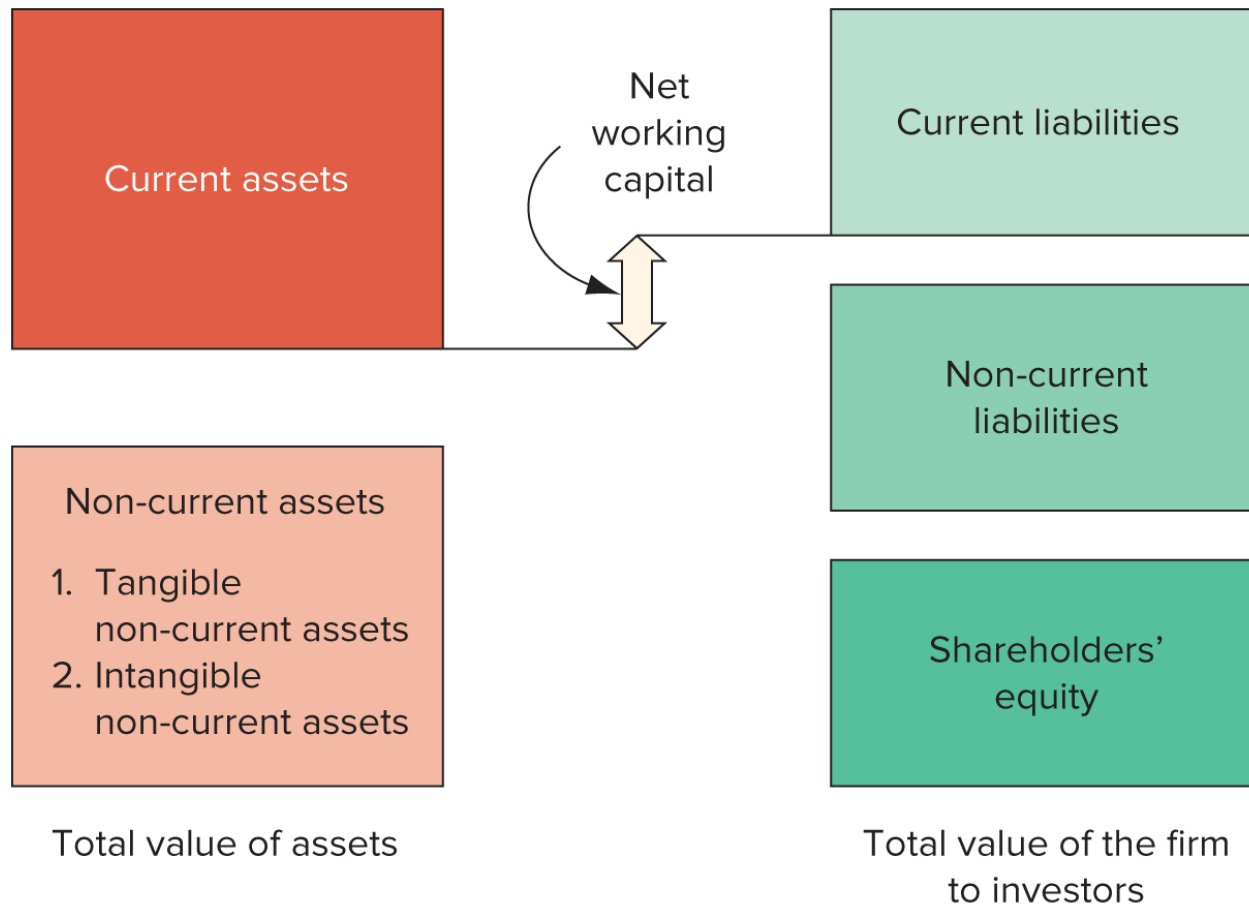
Also known as
The Balance
Sheet

Assets =
Liabilities +
Shareholders'
equity

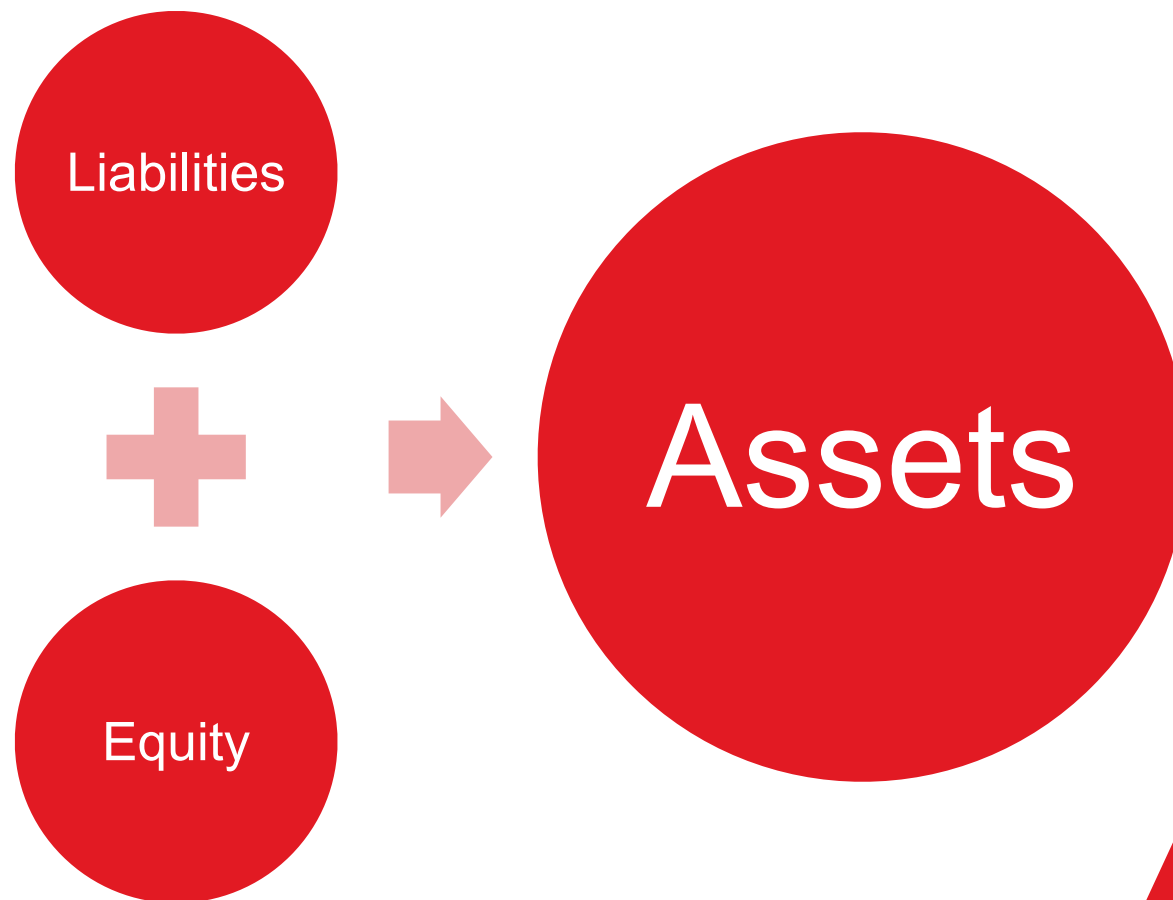
Assets represent
investments made
by company

Liabilities and
Equity represent
how investments
are financed

The Statement of Financial Position: Graphical Presentation



The Balance Sheet Equation



Net Working Capital

Net Working Capital =
Current Assets - Current
Liabilities

It is important to
ensure that net
working capital is
positive

Positive net working
capital means that
enough cash will
be available to pay
off liabilities arising

Market Values and Book Values

Book Value

- Accounting Figures drawn from Accounting Standards

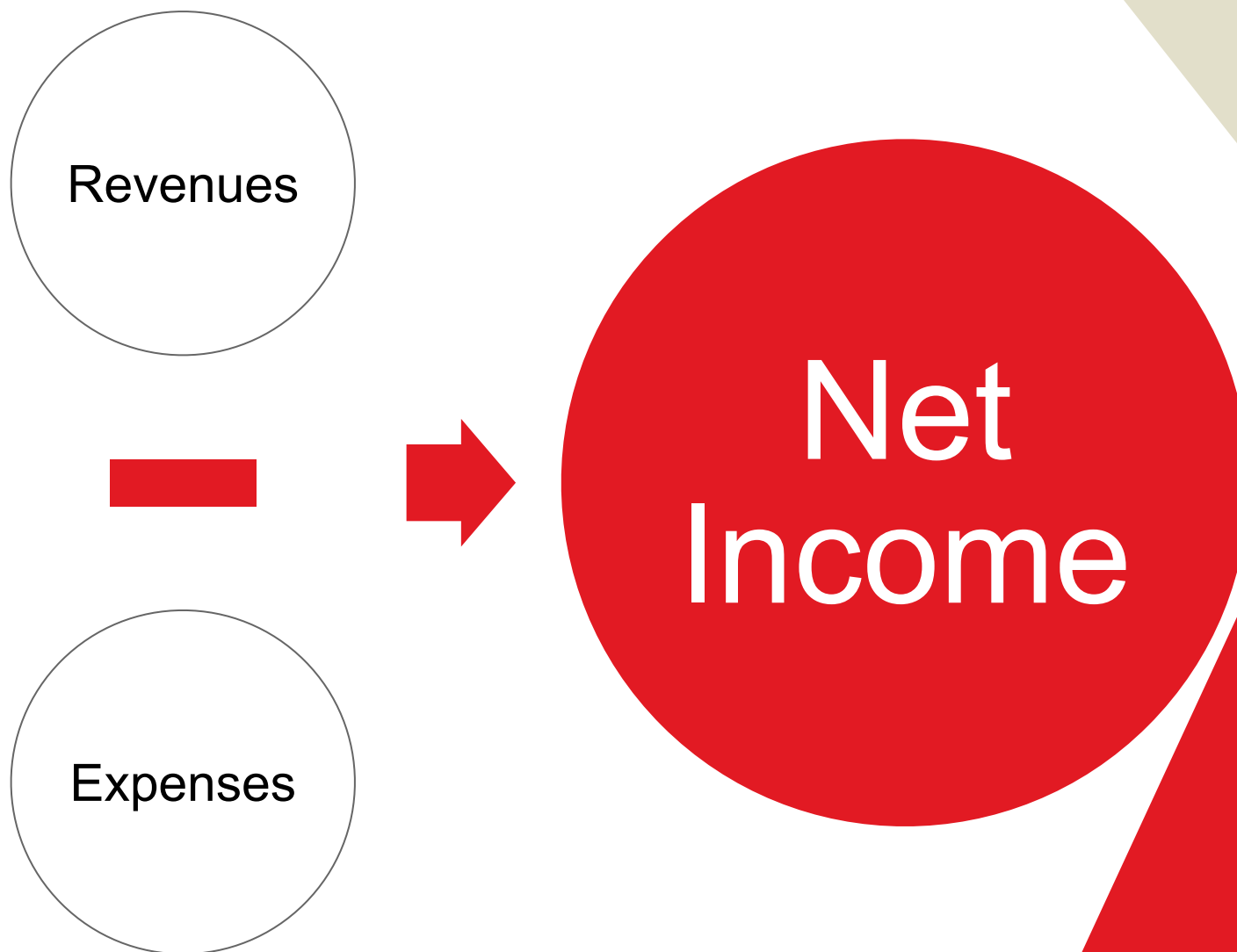
Market Value

- Value based on prices or market valuations

The Income Statement

Measures performance over a specific period

The Income Statement Equation



Income Statement: Important Considerations

Three Important Considerations

Non-
cash
Items

Time

Costs

Tax Rates

Average Tax Rates

- This is the percentage of income that is paid in taxes
- Average Tax Rate is the tax bill divided by your taxable income

Marginal Tax Rate

- The tax you would pay if you earn one more unit of currency
- Use this rate in any investment analysis because it is the rate that you would be taxed on any additional income

TABLE 3.4 Corporate tax rates for large firms around the world

Country	Corporation tax (%)	Country	Corporation tax (%)
Australia	30	New Zealand	28
Austria	25	Norway	23
Bahrain	0	Oman	15
Belgium	29	Pakistan	35
Brazil	25	Poland	19
Canada	34	Portugal	21
China	25	Russia	20
Denmark	22	Singapore	17
Finland	20	South Africa	28
France	33.33	Spain	25
Germany	30	Sweden	22
Greece	29	Switzerland	18
Hong Kong	16.5	Tanzania	30
India	35	Thailand	20
Ireland	12.5	Turkey	20
Italy	24	United Arab Emirates	0
Japan	30.86	United Kingdom	19
Malaysia	24	United States	27
Netherlands	16/22.25		

Statement of Cash Flows

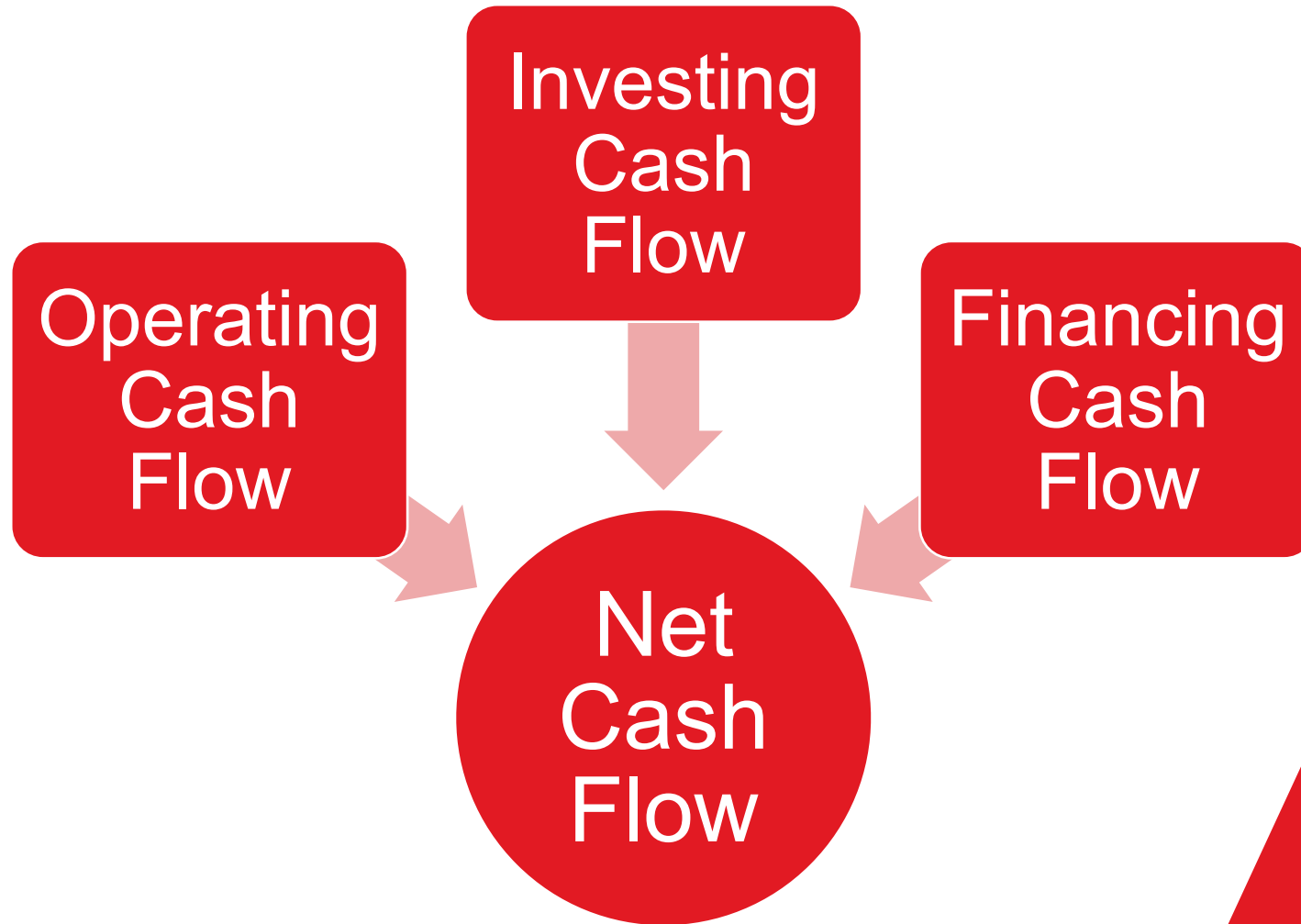
Cash Flow is the most important item to take from financial statements

Cash Flow is NOT the same as Net Working Capital

Cash Flows from Assets = Cash Flows to Creditors and Equity Investors

Total Cash Flow comes from operating activities, investing activities and financing activities

The Cash Flow Equation



Ratio Analysis



Why Undertake Ratio Analysis?

It is important to be able to analyze a firm's financial statements and compare them to those of other firms

Ratio Categories

Liquidity
Ratios

Financial
Leverage
Ratios

Turnover
Ratios

Profitability
Ratios

Market
Value Ratios

Liquidity Ratios

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

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

$$\text{Cash Ratio} = \frac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$$

Financial Leverage Ratios

$$\text{Total Debt Ratio} = \frac{\text{Total Assets} - \text{Total Equity}}{\text{Total Assets}}$$

$$\text{Debt-Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

$$\text{Equity Multiplier} = \frac{\text{Total Assets}}{\text{Total Equity}}$$

$$\text{Times Interest Earned Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

$$\text{Cash Coverage Ratio} = \frac{\text{EBIT} + \text{Depreciation}}{\text{Interest}}$$

Turnover Ratios

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Inventory}}$$

$$\text{Days' Sales in Inventory} = \frac{365 \text{ Days}}{\text{Inventory Turnover}}$$

$$\text{Receivables Turnover} = \frac{\text{Sales}}{\text{Trade Receivables}}$$

$$\text{Days' Sales in Receivables} = \frac{365 \text{ Days}}{\text{Receivables Turnover}}$$

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{Total Assets}}$$

Profitability Ratios

$$\text{Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Total Equity}}$$

Market Value Ratios

Earnings per Share = $\frac{\text{Net Income}}{\text{Shares Outstanding}}$

Price-Earnings Ratio = $\frac{\text{Price per Share}}{\text{Earnings per Share}}$

Market-to-Book Ratio= $\frac{\text{Market Value per Share}}{\text{Book Value per Share}}$

The Du Pont Identity

Return on Equity

ROE is Affected by

Operating
Efficiency

Asset
Use
Efficiency

Financial
Leverage

The Du Pont Identity

$$\begin{aligned}\text{Return on Equity} &= \frac{\text{Net Income}}{\text{Total Equity}} = \frac{\text{Net Income}}{\text{Total Equity}} \times \frac{\text{Assets}}{\text{Assets}} \\ &= \frac{\text{Net Income}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Total Equity}}\end{aligned}$$

$$\text{ROE} = \frac{\text{Sales}}{\text{Sales}} \times \frac{\text{Net Income}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Total Equity}}$$

$$\text{ROE} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Total Equity}}$$

$$= \text{Profit Margin} \times \text{Total Asset Turnover} \times \text{Equity Multiplier}$$

How to Use Financial Statement Information

Time Trend Analysis

- Looks at the same ratio over a number of years

Peer Group Analysis

- Compares ratio with similar firms
- Companies in same industry (Check SIC Code)

Financial Statement Analysis: Important Considerations

Inappropriate Peers

- Some companies operate in several industries
- Different Accounting Standards

Aspirant Analysis

- You may want to compare your firm with the best in the industry
- Choose similar firms at the top of the industry

Sources of Information

- Financial websites: Yahoo! Finance, Reuters, FT.Com, ADVFN.com, Motley Fool
- Company accounts: download from website

Concept Quiz

Why do firms present three different accounting statements?

Why might accounting revenue and cost figures not be representative of actual cash flows?

Why is the Du Pont identity a valuable tool for analysing firm performance?