



Intro to Accounting

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

$$\text{Net Income or Net Loss} = \text{Revenues} - \text{Expenses}$$

$$\text{Ending Retained Earnings} = \text{Beginning Retained Earnings} + \text{Net Income (or subtract if a net loss)} - \text{Dividends}$$

$$\text{Net Increase/Decrease In Cash} = \text{Cash Flows from Operating Activities} + \text{Cash Flows from Investing Activities} + \text{Cash Flows from Financing Activities}$$

$$\text{Ratio of Liabilities to Stockholders' Equity} = \frac{\text{Total Liabilities}}{\text{Total Stockholders' Equity}}$$

Analyzing Transactions

$$\text{Balance of Account} = \text{Debits} - \text{Credits}$$

» Asset accounts have a normal Debit balance.

» The dividends account has a normal Debit balance.

» Revenue accounts have a normal Credit balance.

» Expense accounts have a normal Debit balance.

» Liabilities and retained earnings accounts normally have a Credit balance.

» The retained earnings account includes income statement accounts and the Dividends account.

The Adjusting Process

$$\text{Net Book Value} = \text{Costs} - \text{Accumulated Depreciation}$$

$$\text{Ending Depreciation} = \text{Beginning Accumulated Depreciation} + \text{Depreciation Expense} - \text{Accumulated Depreciation for Retiring Assets}$$

$$\text{Ending Supplies} = \text{Beginning Supplies} + \text{Supplies Bought} - \text{Supplies Expense}$$

$$\text{Ending Prepaid Expense} = \text{Beginning Prepaid Expense} + \text{Additional Payments} - \text{Expense}$$

Completing the Accounting Cycle

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

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

» Temporary accounts require closing entries.

» Revenue and expense accounts are closed to the Income Summary account.

Accounting for Merchandising Businesses

$$\text{Gross Profit} = \text{Sales} - \text{Cost of Goods Sold}$$

$$\text{Inventory Shrinkage} = \text{Inventory Account Balance} - \text{Physical Inventory on Hand}$$

$$\text{Asset Turnover Ratio} = \text{Sales} / \text{Average Total Assets}$$

Inventories

$$\text{Weighted Average Unit Cost (under periodic inventory system)} =$$

$$\text{Total Costs of Units Available for Sale} / \text{Units Available for Sale}$$

$$\text{Net Realizable Value} = \text{Estimated Selling Price} - \text{Direct Costs of Disposal}$$

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

$$\text{Number of Days' Sales in Inventory} = \text{Average Inventory} / \text{Average Daily Cost of Goods Sold}$$

Internal Control & Cash

» A company's checking account balance is a(n) liability in the bank records.

» A credit memo entry on the bank statement shows an increase to the company's account, while a debit memo entry on the bank statement shows a decrease in the company's account.

$$\text{Daily Cash Operating Expenses} = (\text{Operating Expenses} - \text{Depreciation Expenses}) / 365 \text{ Days}$$

$$\text{Days' Cash on Hand} = \text{Cash \& Short-Term Investments} / \text{Daily Cash Operating Expenses}$$

Receivables

$$\text{Net Realizable Value} = \text{Accounts Receivable} - \text{Allowance for Doubtful Accounts}$$

» After the adjusting entry is recorded, *Allowance for Doubtful Accounts* should always have a(n) Credit balance.

$$\text{Interest} = \text{Face Amount} \times \text{Interest Rate} \times (\text{Term} \times 360 \text{ Days})$$

$$\text{Maturity Value} = \text{Face Amount} + \text{Interest}$$

$$\text{Accounts Receivable Turnover} = \text{Sales} / \text{Average Accounts Receivable}$$

$$\text{Number of Days' Sales in Receivables} = \text{Average Accounts Receivable} / \text{Average Daily Sales}$$

Long-Term Assets: Fixed & Intangible

$$\text{Depreciable Cost} = \text{Initial Cost} - \text{Residual Value}$$

$$\text{Annual Depreciation (Straight-Line Method)} = (\text{Cost} - \text{Residual Value}) / \text{Useful Life}$$

$$\text{Straight-Line Rate} = 100\% / \text{Useful Life}$$

$$\text{Depreciation per Unit} = (\text{Cost} - \text{Residual Value}) / \text{Total Estimated Units of Activity}$$

$$\text{Double-Declining-Balance} = \text{Straight-Line Rate} \times 2$$

$$\text{Depletion Rate} = \frac{\text{Cost of Resource}}{\text{Estimated Total Units of Resource}}$$

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Average Book Value of Fixed Assets}}$$

Liabilities: Current, Installment Notes, Contingencies

$$\text{Net Pay} = \text{Gross Pay} - \text{Deductions}$$

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

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

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

Liabilities: Bond Payable

» If the selling price of a bond is less than the face amount or the market rate is greater than the contract rate, the bond is selling at a discount.

» If the selling price and market rate of a bond are equal to the face amount and contract rate, the bond is selling at the face amount.

» If the selling price is greater than the face amount of a bond and the market rate is less than the contract rate, the bond is selling at a premium.

$$\text{Times Interest Earned} = \frac{(\text{Income before Income Tax Expense} + \text{Interest Expense})}{\text{Interest Expense}}$$

Corporations: Organization, Stock Transactions & Dividends

» If stock is sold for a price that is more than its par value, the stock has been sold at a(n) Premium.

» If stock is sold for a price that is less than its par value, the stock has been sold at a(n) Discount.

$$\text{Earnings per Share} = \frac{(\text{Net Income} - \text{Preferred Dividends})}{\text{Average Number of Common Shares Outstanding}}$$

Statement of Cash Flows

$$\text{Net Cash Flow from Operating Activities} = \text{Cash Received from Customers} - \text{Cash Payments for Expenses and Payments to Creditors}$$

$$\text{Change in Cash} = \text{Change in Liabilities} + \text{Change in Stockholders' Equity} - \text{Change in Noncash Assets}$$

$$\text{Free Cash Flow} = \text{Cash Flows from Operating Activities} - \text{Cash Used to Purchase Property, Plant, and Equipment}$$

$$\text{Ration of Free Cash Flow to Sales} = \frac{\text{Free Cash Flow}}{\text{Sales}}$$

Financial Statement Analysis

Working Capital	=	Current Assets	-	Current Liabilities
Current Ratio	=	Current Assets	/	Current Liabilities
Quick Ratio	=	Quick Assets	/	Current Liabilities
Accounts Receivable Turnover	=	Sales	/	Average Accounts Receivable
Number of Days' Sales in Receivables	=	Average Accounts Receivable	/	Average Daily Sales
Inventory Turnover	=	Cost of Goods Sold	/	Average Inventory
Number of Days' Sales in Inventory	=	Average Inventory	/	Average Daily Cost of Goods Sold
Ratio of Fixed Assets to Long-Term Liabilities	=	Fixed Assets (net)	/	Long-Term Liabilities
Ratio of Liabilities to Stockholders' Equity	=	Total Liabilities	/	Total Stockholders' Equity
Times Interest Earned	=	(Income before Income Tax + Interest Expense)	/	Interest Expense
Asset Turnover	=	Sales	/	Average Total Assets
Return on Total Assets	=	(Net Income + Interest Expense)	/	Average Total Assets
Return on Stockholders' Equity	=	Net Income	/	Average Total Stockholders' Equity
Return on Common Stockholders' Equity	=	(Net Income - Preferred Dividends)	/	Average Common Stockholders' Equity
Earnings per share on Common Stock	=	(Net Income - Preferred Dividends)	/	Shares of Common Stock Outstanding
Price-Earnings Ratio	=	Market Price per share of Common Stock	/	Earnings per share on Common Stock
Dividends per share	=	Dividends on Common Stock	/	Shares of Common Stock Outstanding
Dividend Yield	=	Dividends per share of Common Stock	/	Market Price per share of Common Stock