Chapter 9

Reporting and Analyzing Long-Lived Assets

Property, Plant, and Equipment

- Long lived assets that:
  - Are controlled by the company
  - Have physical substance
  - Are used in the operation of a business
  - Are not intended for sale to customers
- Provide benefits over many years
  - PPE are critical to a company's success because they determine the company's production capacity, which in turn affects customer satisfaction.

Determining the Cost of Property, Plant and Equipment

- Record at cost, which includes:
  - Purchase price, including taxes and duties, less discounts or rebates
  - Expenditures necessary to bring asset to its intended location and make it ready for its intended use

Types of Expenditures

- Operating expenditures
  - Benefit only the current period
  - Immediately charged against revenue as an expense
- Capital expenditures
  - Capitalized as an asset
  - Benefit future periods
  - Increases a company's investment in productive activity

Property, plant, and equipment are often subdivided into four classes:

Land

- Cost of land includes
  - Purchase price
  - Closing costs such as title and legal fees
  - Additional costs to prepare land for its intended use (less any proceeds from salvage)
- Land has an unlimited life, therefore it is not depreciated

Land Improvements

- The costs of structural additions made to land (e.g. paving, fencing)
- These decline in service potential over time
  - They are recorded separately from land
  - Depreciated over their useful lives

Buildings

- All expenditures related to the purchase-e or construction of a building
- When a building is purchased such costs include:
  - Purchase price
  - Closing costs (legal fees, title, insurance)
  - Costs required to make building ready for its intended use

- When a building is constructed, its cost consists of:
  - Contract price
  - Architect's fees
  - Building permits
  - Excavation cost
  - Interest costs during construction

Equipment

- Costs include:
  - Purchase price
  - Freight charges and insurance during transit paid by the purchaser
  - Assembling
  - Installing and testing

Asset Retirement Costs

- Cost of any obligation to dismantle, remove or restore a long-lived asset when it is retired
- These costs are estimated in advance and included as part of the cost of the asset

Buy or Lease?

- Advantages of leasing
  - Reduced risk of obsolescence
  - 100% financing
  - Income tax
  - "Off-balance sheet" financing
- Terminology
  - **Lessor** — owner of asset for lease (e.g., landlord)
  - **Lessee** — company leasing asset from owner (e.g., tenant)
- Operating lease
  - Treated as rental by lessee
  - Periodic payment (dr. rent expense/cr. cash)
- Finance lease
  - Treated as purchase by lessee (dr. asset/cr. liability)
  - Periodic payment (dr. liability and interest expense/cr. cash)

Depreciation

- The cost model records property, plant, and equipment at cost when acquired.
- Subsequent to acquisition, depreciation is recorded each period and the assets are carried at cost less the accumulated depreciation.
- Systematic allocation of the cost of property, plant and equipment over the asset's useful life
- Depreciation is a process of cost allocation, not a process of determining an asset's fair value.
- Does not use or provide cash to replace the asset

Factors in Calculating Depreciation

Cost: the purchase price plus all necessary costs to make the asset ready for its intended use.

Useful life: an estimate of the period over which an asset is expected to be available for use.

Residual value: an estimate of the amount that will be received upon disposal of the asset.

- The difference between a depreciable asset's cost and its residual value is called the **depreciation amount,** which is the total amount to be depreciated over the useful life.

Depreciation Methods

Depreciation is generally calculated using one of these three methods:

1. Straight-line
2. Diminishing-balance
3. Units-of-production

Straight-Line Method

- Depreciation is constant for each year of the asset's useful life.

Diminishing-Balance Method

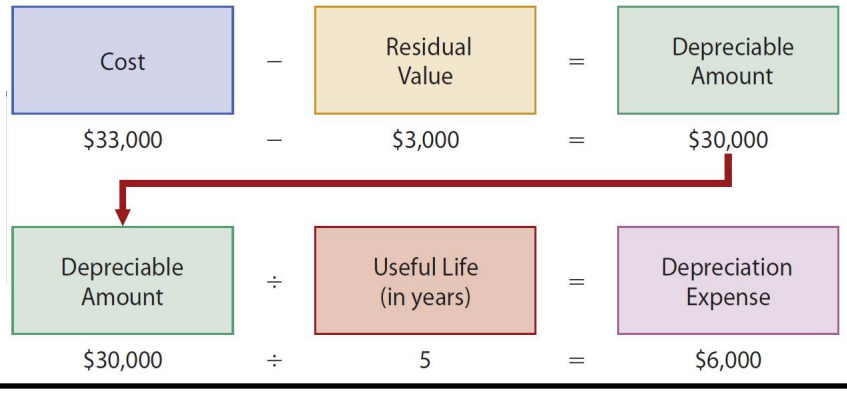
- Produces a decreasing annual depreciation expense over an asset's useful life
  - Depreciation is calculated based on the asset's carrying amount, which diminishes each year as accumulated depreciation increases
- Annual depreciation expense is calculated by multiplying the carrying amount by the depreciation rate
  - Residual value is not included in the calculation
- Can be applied using different rates
  - Depreciation rate = Straight-line rate x multiplier

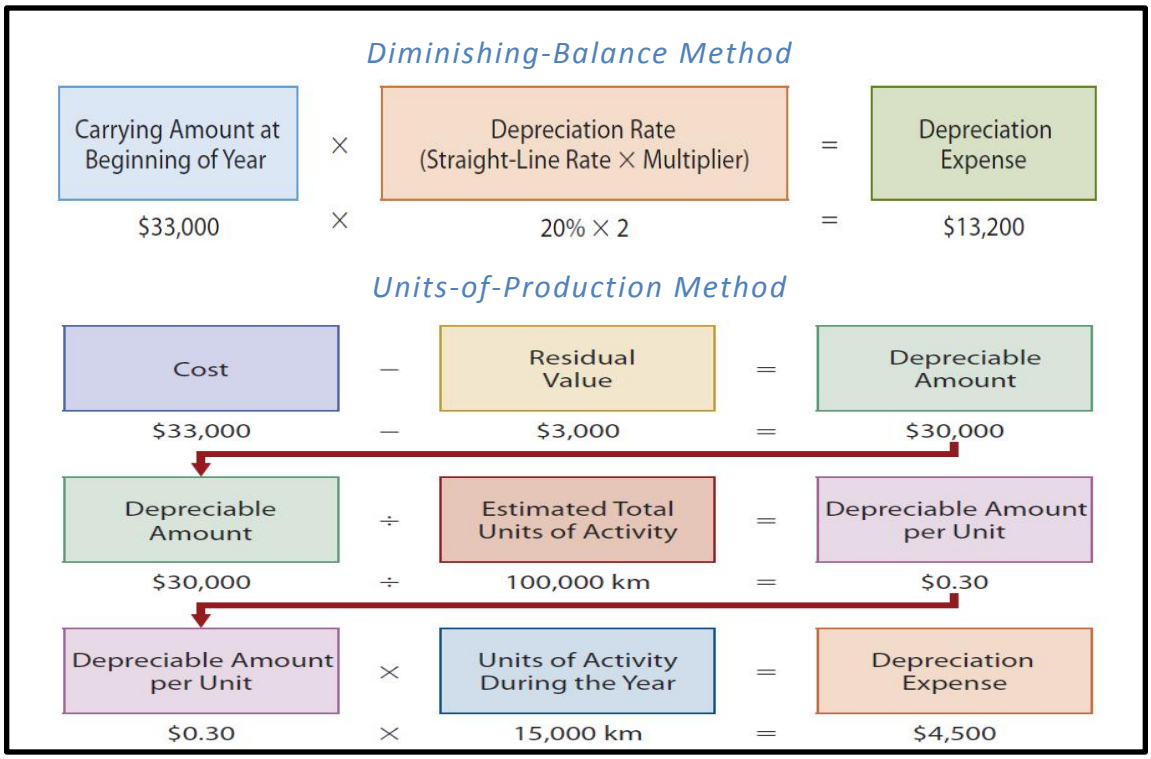
Units-of-Production Method

- Useful life is expressed in terms of total units of production or activity expected from the asset
  - Such as units produced or machine-hours worked
- Useful for factory machinery, vehicles, airplanes

Example: A delivery van was bought on Jan. 1, 2012
Cost: $33,000
Estimated residual value: $3,000
Estimated useful life: 5 years/100,000km

Straight-Line Method





Other Depreciation Issues

- Significant components
  - May be depreciated separately
- Income tax
- Impairments
  - When carrying amount of asset exceeds its **recoverable amount**
- Cost vs. revaluation model
  - Revaluation model allowed under IFRS
  - Allows revaluation to fair market value

Reversing Periodic Depreciation

- Revisions needed if:
  - Capital expenditures during useful life
  - Impairment losses
  - Change in estimated useful life or residual value
  - Change in the pattern in which the asset's economic benefits are consumed
- Accounted for as a change in estimate
  - Change made in current and future years, but not to prior periods (prospectively)

Disposal of Property, Plant, and Equipment

- Companies dispose of property, plant, and equipment that is no longer useful to them using of these three methods:

  Sale: equipment is sold
  Retirement: equipment is scrapped or discarded
  Exchange: existing equipment is traded for new equipment

- Whatever the disposal method, the company must follow these four steps to record the disposal:

Step 1: Update depreciation

- Depreciation for the fraction of the year to the date of disposal must be recorded

Step 2: Calculate carrying amount

- Carrying amount = Cost – Accumulated depreciation

Step 3: Calculate gain or loss

- Proceeds – carrying amount = gain (loss)

  Proceeds > carrying amount = Gain (Cr.)
  Proceeds < carrying amount = Loss (Dr.)

Step 4: Record disposal

- Remove cost of asset and accumulated depreciation. Record proceeds (if any) and gain or loss on disposition (if any)

Cash	xxx	
Accumulated Depreciation	xxx	
Asset		xxx
Gain on Disposal		xxx

Intangible Assets and Goodwill

- Do not have physical substance
- Rights, privileges and/or competitive advantages
  - For example, intellectual property in a production process
- Must be identifiable – either:
  - Can be separated from company and sold; or
  - Based on contractual or legal rights

Accounting for Intangible Assets

- Accounting for intangible assets parallels accounting for tangible assets
  - Recorded at cost including all costs to make asset ready for use
- If intangible asset has a finite (limited) life, its cost must be systematically allocated over its useful life
  - For intangible assets, this is referred to as **amortization** rather than depreciation
- Intangible assets with an indefinite (unlimited) life are not amortized

Intangibles with Finite Lives

- Patents
  - Exclusive right to produce for 20 years
- Research and development costs
  - All research costs are expensed
  - Development costs are capitalized only if associated with an identifiable, feasible product
- Copyrights ©
  - Protection for the life of the creator + 50 years

Intangibles with Indefinite Lives

- Trademarks and trade names ™®
  - Word, jingle, symbol that distinguishes business

- Franchises
  - Contractual agreement to sell products or services
- Licenses
  - Operating rights

Goodwill

- Asset representing future economic benefits arising from the purchase of a business
  - Excess of cost over fair market value of net assets (assets less liabilities) acquired
  - Represents the extra value relating to a business when it is purchased
  - Only identified with the business as a whole
- Not amortized, but subject to an annual test for impairment

Statement Presentation of Long-Lived Assets

Statement of Financial Position

- Reported as
  - Property, Plant and Equipment
  - Intangible Assets
  - Goodwill
- Disclose cost and accumulated depreciation (amortization) of each major class of assets
  - Either in statement or in notes
- IFRS also requires additional disclosures

Income Statement

- Depreciation expense, gains and losses on disposal and impairment losses are included in the operating section

Statement of Cash Flows

- Cash flows from the purchase and sale of long-lived assets are reported in the investing section

Analyzing Assets

Return on Assets

- Measures overall profitability

$$\text{Return on Assets} = \frac{\text{Profit}}{\text{Average Total Assets}}$$

HIGHER IS BETTER

Asset Turnover

- Measures how efficiently a company uses its assets

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

HIGHER IS BETTER

Chapter 10

Current Liabilities

- Expected to be paid:
  - From existing current assets or through the creation of other current liabilities
  - Within one year
- Debts that do not meet both criteria are classified as non-current (or long-term) liabilities
- Types of current liabilities include:
  - Bank indebtedness from operating lines of credit
  - Accounts payable and accrued liabilities
  - Unearned revenue
  - Notes or loans payable
  - Sales taxes
  - Property taxes
  - Payroll
  - Current portion of non-current debt

Operating Line of Credit

- Prearranged agreement between a company and a lender to allow the company to borrow up to an agreed-upon amount:
  - To help manage temporary cash shortfalls
- Interest is charged using a floating (or variable) interest rate
- Security (collateral) may be required by bank
- When used, results in bank indebtedness

Sales Taxes

- Expressed as a percentage of the sales price
- Federal Goods and Services Tax (GST)
- Provincial Sales Tax (PST or QST)
- Combines into one harmonized sales tax (HST) in some provinces
- When a sale occurs, the retailers collects the sales tax from the customer and periodically sends the sales tax to respective governments:
  - When paid, debit Sales Tax Payable account and credit Cash

Example: The March 25 cash register readings for the Islander Corporation show sales of $10,000, and HST of $1,300

Mar. 25	**Cash**	**11,300**	
	Sales		**10,000**
	Sales Tax Payable ($10,000 X 13%)		**1,300**
	(To record sales and sales tax)		

Property Taxes

- Businesses that own property pay property taxes for each calendar year to municipal or provincial governments
- Property taxes are calculated at a specified rate for every $100 of the assessed valued of the property

Example: Tantramar owns land and a building in the city of Regina. Tantramar receives its property tax bill of $6,000 for the calendar year on March 1, payable May 31.
Upon receipt of the property tax bill, an expense is recorded for the months that have passed.

Mar 1	**Property Tax Expense ($6,000 X 2/12)**	**1,000**	
	Property Tax Payable		**1,000**
	(To record property tax expense for January and February)		

In May, when Tantramar records the payment of the liability recorded on March 1, it also records the expense incurred to date for the months of March-May.

May 31	**Property Tax Payable**	**1,000**	
	Property Tax Expense ($6,000 X 3/12)	**1,500**	
	Prepaid Property Tax ($6,000 X 7/12)	**3,500**	
	Cash		**6,000**
	(To record payment of property tax for January through December)		

Prepaid is cleared to expense at the end of year.

Dec. 31	**Property Tax Expense**	**11,300**	
	Prepaid Property Tax		**10,000**
	(To record property tax expense for June through December)		**1,300**

Payroll

- Three types of liabilities related to employee salaries and wages:
  1. Salary and wages owed to employees (known as gross pay)
  2. Payroll deductions required to be withheld from employees' gross pay
     - Employees' gross pay less payroll deductions is known as net pay (or take home pay)
  3. Employer payroll obligations

Employee Payroll Deductions

- Mandatory payroll deductions:
  - Canada pension plan (CPP)
  - Employment insurance (EI)
  - Federal and provincial income taxes
- Voluntary payroll deductions:
  - Benefits such as health and pension
  - Charitable contributions
  - Union dues

Employer Payroll Obligations

- Employer's share of CPP and EI
- Workers' compensation
- Employee benefits:
  - Compensated absences (vacation, statutory holidays)
  - Employer-sponsored health plans and pensions

Short-Term Notes Payable

- A promise to pay a specified amount either at a future date or on demand
- Often used instead of accounts payable
- Provide written documentation, if needed, for legal remedies
- Normally has interest attached (at a fixed annual rate)
- Issued for varying periods:
  - If due within one year of financial statement date, they are classified as current liabilities

Example: assume HSBC Bank lends $100,000 to Williams Ltd. on March 1, 2012. The loan is due in four months, on July 1, and 6% interest.
Williams makes the following journal entry when it receives the $100,000:

Mar 1	**Cash**	**100,000**	
	Bank Loan Payable		**100,000**
	(To record receipt of four-month, 6% bank loan from HSBC)		

If Williams has a March 31 year-end, the adjusting entry for interest would be:

Mar 31	**Interest Expense**	**500**	
	Interest Payable		**500**
	(To accrue interest for March on HSBC bank loan)		

At maturity, the following entries would be made:

July 1	**Interest Expense**	**1,500**	
	Interest Payable		**1,500**
	(To accrue interest for April-June on HSBC bank loan)		

July 1	**Bank Loan Payable**	**100,000**	
	Interest Payable ($500 + $1,500)	**2,000**	
	Cash ($100,000 + $2,000)		**102,000**
	(To record payment of HSBC bank loan and interest at maturity)		

Current Maturities of Non-Current Debt

- The portion of non-current (long-term) debt that is due within the current year or operating cycle should be classified as a current liability

Non-Current Liabilities: Installment Notes Payable

Non-Current Liabilities

- Obligations to be paid after one year or longer
- Also known as financial liabilities (a type of financial instrument):
  - A contractual obligation to pay cash in the future
- Includes long-term notes, bonds, and lease obligations
- May be secured or unsecured:
  - Secured notes are also known as mortgages

Installment Notes Payable

- Normally repayable in a series of periodic payments called installments
- Installment payments usually take one of two forms:
  - Fixed principal payments plus interest (fixed or floating interest)
  - Blended principal and interest payments

Non-Current Liabilities: Bonds Payable

Bonds Payable

- A form of interest-bearing notes payable
- Large amount is divided into smaller denominations:
  - Makes them attractive to investors
- Most have a fixed interest rate (coupon rate)
- May be secured or unsecured (debenture)
- Payable at maturity (term bonds) or in installments (serial bonds)
- Redeemable bonds can be retired before maturity

Bonds Trading

- Convertible bonds can be converted to common shares at a stated price
- Bonds can also be traded on stock exchanges:
  - Bond prices are quoted as a percentage of the face value of the bonds
- Market (or effective) interest rate (yield):
  - Rate investors demand for loaning funds

Terminology

- Face value:
  - Amount of principal due at maturity
- Present value:
  - Value today of:
    1. Bond face value to be received at maturity, and
    2. Interest payments to be received periodically
  - The value today is dependent upon when the amounts are to be received, and the market rate on interest

Statement Presentation and Analysis

Presentation

Current liabilities

- Reported as the first category of liabilities
- Can be listed separately on statement of financial position or detailed in the notes
- Normally listed in order of liquidity

Non-current liabilities

- Report separately in statement of financial position and detail in notes
- Measured and reported at amortized cost

Uncertain Liabilities

- Events with uncertain outcomes:
  - Who is owed
  - When it is owed, and/or
  - How much is owed
- Provisions are uncertain as to timing or amount
- Contingent liabilities are possible obligations that are dependent upon some future event:
  - Should be recognized if more likely than not (IFRS)
  - Should be recognized if likely (ASPE)

Analysis of Debt Obligations

Liquidity

- Measure short-term ability to pay maturing obligations and meet cash needs:
  - Current ratio
  - Inventory turnover ratio
  - Receivables turnover ratio

Solvency

- Measure ability to meet long-term obligations:
  - Debt to total assets
  - Times interest earned

Debt to Total Assets

- Measures the percentage of assets that is financed by lenders and other creditors rather than by shareholders.

$$\text{Debt to Total Assets} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

LOWER IS BETTER

Times Interest Earned

- Provides an indication of a company's ability to meet interest payments as they come due

$$\text{Times Interest Earned} = \frac{\text{Profit} + \text{Interest Expense} + \text{Income Tax Expense}}{\text{Interest Expense}}$$

HIGHER IS BETTER

Operating Leases

- Treated as periodic rentals – no assets or liabilities are recorded
- Usually short-term:
  - If longer-term, considered to be "off-balance-sheet financing"
- Must be disclosed in the notes to the financial statement.

Chapter 11

Reporting and Analyzing Shareholders' Equity

The Corporate Form of Organization

- A separate legal entity:
  - Separate and distinct from its owners
- Has most of the rights and privileges of a person
- Classified by purpose and ownership:
  - Purpose: profit or not-for-profit
  - Ownership: public or private

Characteristics of a Corporation

- Separate legal existence
- Limited liability of shareholders
- Transferable ownership rights
- Ability to acquire capital
- Continuous life
- Corporation management
- Government regulations
- Income tax

Advantages and Disadvantages of a Corporation

Advantages

- Corporate management
- Separate legal existence
- Limited liability of shareholders
- Deferred or reduced income tax
- Transferable ownership rights
- Ability to acquire capital
- Continuous life

Disadvantages

- Increased costs and complexity in order to adhere to government regulation
- Additional income tax

Share Issue Consideration

- To raise capital, the corporation sells ownership rights as shares:
  - Other way to raise capital is to issue debt
- Shares can be divided into different classes:
  - Usually referred to as common shares and preferred shares
- Ownership rights are specified in articles of incorporation or in by-laws:
  - Rights in voting, dividends, liquidation
- Authorized share capital:
  - Maximum amount of shares allowed to sell
  - May be limited or unlimited
- Not recorded; disclosed only (IFRS not ASPE)
- Legal capital:
  - Share capital cannot be distributed to shareholders unlike retained earnings, which can be distributed as dividends

Issuing Shares

- First issue normally through initial public offering (IPO):
  - Share price is set by the company
- Once issued, shares of publicly held companies trade on organized exchanges:
  - At prices per share established between buyers and sellers (no direct impact on company)
  - Fair value of shares – share price - is determined by market forces

Common Shares

Issuing Common Shares

- Contributed capital:
  - The amount that shareholders have paid to the corporation for their shares
- Shares are usually issued for cash:

  Dr. Cash

  Cr. Common Shares
- Shares can be issued in exchange for services or noncash assets:
  - IFRS: Record at cash equivalent price (ideally the fair value of consideration received)
  - ASPE: Fair value of shares given up or fair value of consideration received (whichever is more reliable)

Example: assume Hydro-Slide, Inc. is authorized to issues 1,000 shares for $2 per share on January 12.

Jan. 12	**Cash**	**2,000**	
	Common Shares		**2,000**
	(To record issue of 1,000 common shares)		

Assume that 5,000 common share3s were issued by Hydro-Slide in exchange for a parcel of land on January 27. The shares were trading at $3.50 per share and the land was valued at $20,000.

Jan. 27	**Land**	**20,000**	
	Common Shares		**20,000**
	(To record issue of 5,000 common shares in exchange for land)		

** The transaction is recorded using the value of the land, rather than the value of the common shares**

Preferred Shares

- Share capital can consist of preferred and common shares
- Preferred shares have contractual provisions that give them priority over common shares
- Usually do not have voting rights
- Accounting for preferred shares similar to common shares

Preferred Share Preferences

- Dividend preference:
  - Cumulative (dividends in arrears)
- Liquidation preference
- Other preferences:
  - Convertible
  - Redeemable/callable (company option)
  - Retractable (shareholder option)

Retained Earnings

Dividends

- A pro rata (equal) distribution of a portion of a corporation's retained earnings to its shareholders
- Cash dividends are most common:
  - A distribution of cash to shareholders
- Stock dividends may also be issued

Cash Dividends

- For a cash dividend to occur, a corporation must:
  1. Meet a two-part solvency test , and
  2. Effect a formal declaration of dividends by board of directors
- Three important dates in connection with dividends:
  1. Declaration date
  2. Record date
  3. Payment date

Declaration Date

- Date the Board of Directors authorizes the cash dividend
- Commits the corporation to a binding legal obligation

Record Date

- Date of ownership of shares is determined for dividend purposes
- No entry necessary

Payment Date

- Date dividend cheques are mailed

Stock Dividends

- Cash dividend: paid in cash
- Stock dividend: distributed (paid) in shares:
  - Fair value (on date of declaration) is assigned to the stock dividend shares

Purposes and Benefits of Stock Dividends

- Satisfy shareholders' dividend expectations without spending cash
- Increase marketability of its shares:
  - Increases number of shares and decreases market price per share
- Reinvest and restrict a portion of shareholders' equity:
  - Unavailable for future cash dividends

Example: Assume that IBR Inc. has 50,000 common shares with a balance of $500,000 in Common Shares and $300,000 in Retained Earnings. On June 30, it declares a 10% stock dividend to shareholders of record at July 20, to be distributed to shareholders on August 5. The share price on June 30 is $15 per share.

Declaration Date			
June 30	Stock Dividends Common Stock Dividends Distributable (To record declaration of 10% stock dividend)	75,000	75,000
Record Date			
No Entry			
Distribution Date			
Aug. 5	Stock Dividends Distributable Common Shares (To record issue of 5,000 common shares in a 10% stock dividend)	75,000	75,000

Effect of Stock Dividends

- Decreases retained earnings
- Increases common shares
- Total shareholder's equity remains the same

Stock Splits

- A stock split involves the issue of additional shares to shareholders according to their percentage ownership:
  - Like a stock dividend but much larger
- A stock split has no effect on total share capital, retained earnings, or total shareholders' equity
- Market value of the shares will decrease roughly proportionately to the split

Retained Earnings Restrictions

- Balance in Retained Earnings is generally available for dividend declarations
- Restrictions make a portion of the balance unavailable for dividends:
  - May be legal, contractual or voluntary restrictions
- No journal entry; disclosed in notes

Presentation of Shareholders' Equity

Statement of Financial Position

Contributed Capital:

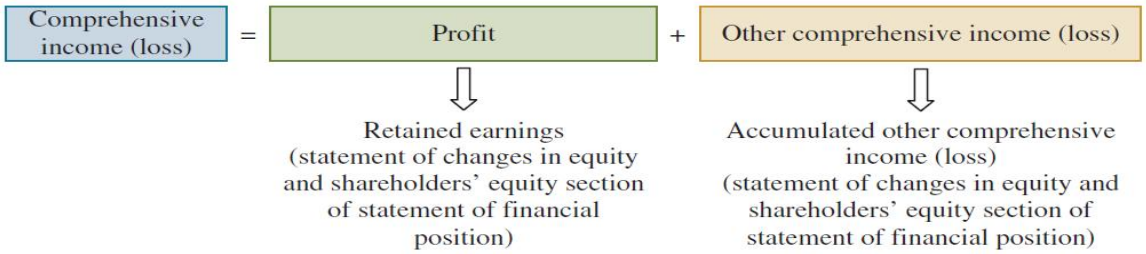
- Share capital: preferred and common shares
- Additional contributed capital: amounts contributed from acquiring and retiring shares

Retained Earnings:

- Cumulative profits (losses) since incorporation
- Annual profit is added; losses and dividends declared are deducted

Accumulated Other Comprehensive Income:

- Certain gains and losses that bypass profit
- Recorded directly to shareholders' equity
- Other comprehensive income reported only under IFRS; not required under ASPE
- Other comprehensive income (OCI) includes certain gains and losses:
  - For example, revaluations of property, plant, and equipment using the revaluation model
- Accumulated other comprehensive income is the cumulative change in shareholders equity:
  - Starts with opening balance and is increased (decreased) by other comprehensive income (loss) each period
- Comprehensive income (loss) includes profit and OCI



Statement of Changes in Equity (IFRS)

- Discloses changes in total shareholders' equity for the period, including:
  - Contributed capital
  - Retained earnings
  - Accumulated other comprehensive income
- Required under IFRS

Measuring Corporate Performance

- Dividend record:
  - Payout ratio
  - Dividend yield
- Earnings performance:
  - Earnings per share
  - Return on common shareholders' equity

Payout Ratio

- Measures the percentage of profit distributed in the form of cash dividends to common shareholders

$$\text{Payout Ratio} = \frac{\text{Cash Dividends}}{\text{Profit}}$$

HIGHER IS BETTER if investor is looking for income

Dividend Yield

- Measures the profit generated by each share, based on the market price of the shares

$$\text{Dividend Yield} = \frac{\text{Dividend per Share}}{\text{Market Price per Share}}$$

HIGHER IS BETTER if investor is looking for income

Earnings Performance

Earnings per Share

- Measures the profit earned by each common share

$$\text{Earnings Per Share} = \frac{\text{Profit available to common Shareholders}}{\text{Weighted averge number of common shares}}$$

NOT COMPARABLE BETWEEN COMPANIES

- Profit available to common shareholders:
  = Profit – preferred dividends
- Weighted average number of common shares:
  - Shares issued during the year x the fraction of the year they are outstanding
  - Example: April 1 = 3/12 months if calendar year used

Complex Capital Structure

- When a company has securities that can be converted into common shares
- The additional common shares will result in a reduced (diluted) EPS figure
- Two EPS amounts are calculated:
  - Basic EPS: calculation on preceding page
  - Diluted EPS: hypothetical calculation as if all securities were converted into, or exchanged for, common shares

Return on Equity

- Common shareholders' equity:
  = Total shareholders' equity – legal capital of preferred shares

Return on Common Shareholders' Equity

- Measures the company's profitability from the shareholders' viewpoint

$$\text{Return on Common Shareholders Equity} = \frac{\text{Profit Available to Common Shareholders}}{\text{Average Common Shareholders' Equity}}$$

HIGHER IS BETTER

Chapter 13

Reporting of Cash Flows

Purpose of the Statement of Cash Flows

- Helps users assess:
  - A company's ability to generate cash
  - A company's needs in using this cash
- This is useful in determining:
  - Company's ability to generate future cash flows
  - Investing and financing transactions during the period, and effect upon capital structure
  - And for making comparisons with other companies

Content of the Statement of Cash Flows

Definition of Cash

- Cash may include cash equivalents
  - Short-term, highly liquid investments that are readily converted to cash within a short period of time (usually within three months)
  - May not be included in future depending on outcome of IASB/FASB joint project

Classification of Cash Flows

Operating Activities

- Cash effects of transactions that create revenues and expenses that enter into determination of profit
- Includes relevant (i.e., the related account is an income statement account) noncash current assets and current liabilities on the statement of financial position

Investing Activities

- Purchasing and disposing of long-term investments and productive long-lived assets using cash
- Lending money and collecting the loans
- Generally includes non-current asset items (e.g., long-term investments, property, plant, and equipment) on the statement of financial position

Financing Activities

- Obtaining cash from issuing debt and repaying the amounts borrowed
- Obtaining cash from selling common and preferred shares and paying dividends
- Generally includes non-current liabilities, and shareholders' equity items on the statement of financial position

Significant Noncash Activities

- If it does not affect cash, do NOT report in statement of cash flows
- Report in separate note or supplementary schedule to the financial statements
- Examples:
  - Issue of debt to purchase assets

- Issue of shares to purchase assets
- Conversion of debt to equity
- Exchange of property, plant, and equipment

Preparing the Statement of Cash Flows

General format:

COMPANY NAME Statement of Cash Flows Period Covered		
Operating Activities		
(Prepared using indirect or direct method)	XXX	
Net cash provided (used) by operating activities		XXX
Investing Activities		
(List of individual inflows and outflows)	XXX	
Net cash provided (used) by investing activities		XXX
Financing Activities		
(List of individual inflows and outflows)	XXX	
Net cash provided (used) by financing activities		XXX
Net increase (decrease) in cash		XXX
Cash, beginning of period		XXX
Cash, end of period		XXX

Steps in preparing:

Step 1: Prepare operating activities section
Step 2: Prepare investing activities section
Step 3: Prepare financing activities section
Step 4: Complete the statement of cash flows

Step 1: Operating Activities

- Determine the net cash provided (used) by operating activities by converting profit from an accrual basis to a cash basis
- Conversion may be done by either the **indirect method** or the **direct method**
  - Both methods arrive at the same amount of net cash provided by (used in) operating activities
  - Direct method is preferred by standard-setters
  - Indirect method is preferred by most companies

Section 1: Indirect Method

- Most companies favour the indirect method for the following reasons
  - Easier to prepare
  - Reveals less information to competitors

Convert Profit to Net Cash Provided (Used) by Operating Activities

- Start with profit and add or deduct items not affecting cash to arrive at net cash provided (used) by operating activities
  - + Noncash expenses and/or – noncash revenues on the income statement
  - + Losses and/or – gains on the income statement

- +/- Changes in relevant noncash current assets and current liabilities on the statement of financial position

Non Cash Expenses	Depreciation Expense (Property & Equipment)	ADD
	Amortization Expense (Intangible Assets)	ADD
Losses & Gains	Losses	ADD
	Gains	DEDUCT
Changes in Noncash Current Assets and Current Liability Accounts	Increase in Current Asset Decrease in Current Asset Increase in Current Liability Decrease in Current Liability	DEDUCT ADD ADD DEDUCT

Example: We will analyze the changes in Computer Services' current asset accounts.

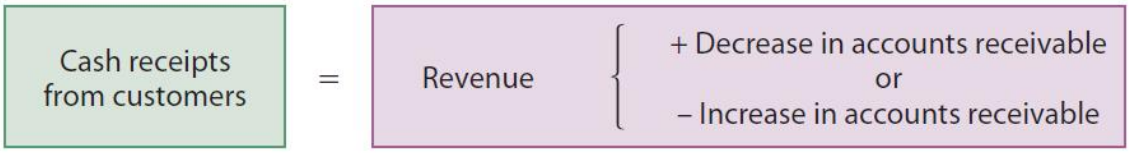
COMPUTER SERVICES CORPORATION Statement of Cash Flow – Indirect Method (partial) Year Ended December 31, 2012		
Operating activities		
Profit		$145,000
Adjustments to reconcile profit to net cash provided (used) by operating activities		
Depreciation expense	$9,000	
Loss on sale of equipment	3,000	
Decrease in accounts receivable	10,000	
Increase in merchandise inventory	(5,000)	
Increase in prepaid expenses	(4,000)	
Increase in accounts payable	16,000	
Decrease in income tax payable	(2,000)	27,000
Net cash provided by operating activities		172,000

Section 2: Direct Method

- Standard setters prefer the direct method but allow the use of either method
- Details cash receipts and payments
- Similar to indirect method:
  - Adjusts income statement from accrual basis to cash basis in order to arrive at net cash provided (used) by operating activities
  - However, whereas indirect method adjusts total profit, direct method adjusts each individual revenue and expense account

Cash Receipts

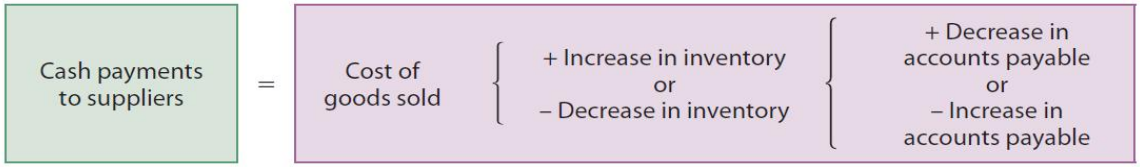
- The relationship among cash receipts from customers, revenues from sales, and changes in accounts receivable is:
- If other cash receipts (such as interest), these must be adjusted for any receivable amounts as was done above



Cash Payments

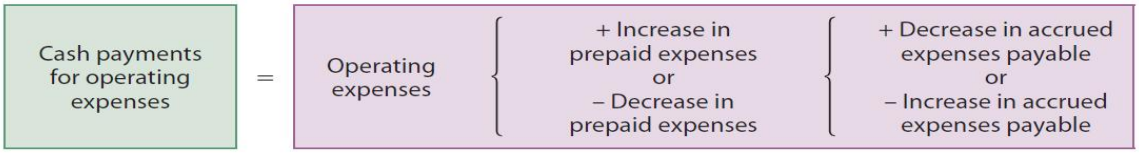
Cash Payments to Suppliers

- The relationship among cash payments to suppliers, cost of goods sold, changes in inventory, and changes in accounts payable is:



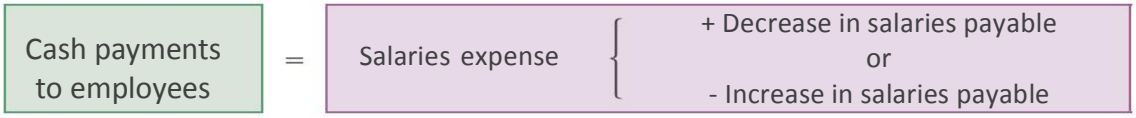
Cash Payments for Operating Expenses

- The relationship among cash payments for operating expenses, changes in prepaid expenses, and changes in accrued expenses payable is:



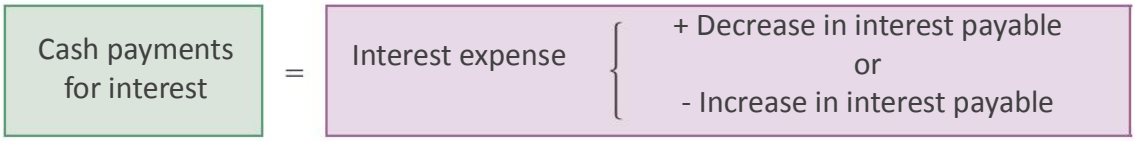
Cash Payments to Employees

- Some companies report payments to employees with operating expenses
- If reported separately, the relationship among cash payments to employees, salaries expense, and changes in salaries payable is:



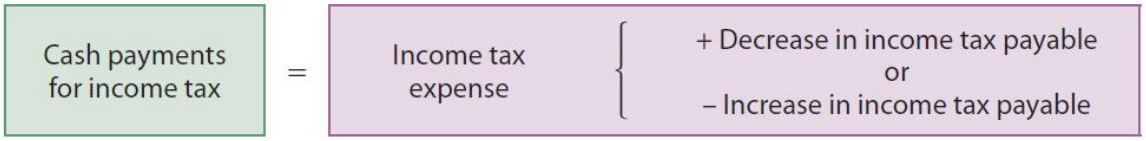
Cash Payments for Interest

- The relationship among cash payments for interest, interest expense, and changes in interest payable is:



Cash Payments for Income Tax

- The relationship among cash payments for income tax, income tax expense, and changes in income tax payable is:



Summary of Conversion of Net Cash Provided (Used) by Operating Activities

	Cash Receipts (Revenues)	Cash Payments (Expenses)
Current Assets		
Increase in account balance	Deduct (–)	Add (+)
Decrease in account balance	Add (+)	Deduct (–)
Current Liabilities		
Increase in account balance	Add (+)	Deduct (–)
Decrease in account balance	Deduct (–)	Add (+)

Example: Partial Statement of Cash Flows from Operating Activities.

COMPUTER SERVICES CORPORATION Statement of Cash Flow (partial) Year Ended December 31, 2012		
Operating activities		
Cash receipts from customers		$517,000
Cash payments		
To suppliers	$(139,000)	
For operating expenses	(145,000)	
For interest	(12,000)	
For income tax	(49,000)	(345,000)
Net cash provided by operating activities		172,000

Step 2: Investing Activities

- Determine the net cash provided (used) by investing activities by analyzing changes in non-current asset accounts
- Reported the same under both direct and indirect methods
- Asset acquisitions are uses of cash; disposals are sources of cash (for the proceeds of disposition)
  - Depreciation expense is a noncash charge

Step 3: Financing Activities

- Determine the net cash provided (used) by financing activities by analyzing changes in non-current liability and shareholders' equity accounts
- Changes to notes, loans, and bonds payable are analyzed to determine cause of change
  - Amortization of premium or discount (if any) are noncash charges and have no effect
- Analyze share capital and retained earnings accounts for changes and their cause
  - Profit is reported in the operating activities section

Step 4: The Statement of Cash Flows

- Complete the statement of cash flows
- Determine increase (decrease) in cash

- Ensure ending cash balance agrees to that reported on statement of financial position
- Identify any noncash disclosures

Direct Method

COMPUTER SERVICES CORPORATION Statement of Cash Flows Year Ended December 31, 2012		
Operating activities		
Cash receipts from customers		$517,000
Cash payments		
To suppliers	$(139,000)	
For operating expenses	(145,000)	
For interest	(12,000)	
For income tax	(49,000)	(345,000)
Net cash provided by operating activities		172,000
Investing activities		
Purchase of building	$(120,000)	
Purchase of equipment	(25,000)	
Sale of equipment	4,000	
Net cash used by investing activities		(141,000)
Financing activities		
Issue of common shares	$20,000	
Payment of cash dividend	(29,000)	
Net cash used by financing activities		(9,000)
Net increase in cash		22,000
Cash, January 1		33,000
Cash, December 31		$55,000
Note x: Significant noncash investing and financing activities		
Issue of bonds to purchase land		$110,000

Using Cash Flows to Evaluate a Company

- Liquidity
  - Cash current debt coverage ratio
- Solvency
  - Cash total debt coverage ratio
  - Free cash flow

Cash Current Debt Coverage

- Measures short-term debt paying ability (cash basis)

$$\text{Cash Current Debt Coverage} = \frac{\text{Cash Provided By Operating Activities}}{\text{Average Current Liabilites}}$$

HIGHER IS BETTER

Cash Total Debt Coverage Ratio

- Measures long-term debt paying ability (cash basis)

$$\text{Cash Total Debt Coverage Ratio} = \frac{\text{Cash Provided By Operating Activities}}{\text{Average total liabilities}}$$

HIGHER IS BETTER

Free Cash Flow

- Measures discretionary cash flow remaining from operating activities available to use to expand operations, reduces debt, go after new opportunities, or pay additional dividends, among other alternatives

$$\text{Free Cash Flow} = \underset{\text{Operating Activities}}{\text{Net Cash Provided (Used)}} - \underset{\text{Expenditures}}{\text{Net Capital}} - \text{Dividends Paid}$$

HIGHER IS BETTER

Chapter 14

Sustainable Income

- The level of profit that is likely to be attainable in the future
- Differs from actual profit due to irregular revenues, expenses, gains and losses that are included in profit
- Two common types of irregular items:
  - Discontinued operations
  - Changes in accounting policy

Discontinued Operations

- Disposal, or availability for sale, of a component of an entity
  - Separate major line of business or major geographical area of operations that has been disposed of or is for sale
  - Must be clearly distinguishable operationally and financially

Statement of Financial Position

- Assets and liabilities are reported separately
- Valued and reported at lower of carrying amount and fair value, less any expected costs of disposition
  - Reported as non-current assets or liabilities

Income Statement

- Segregated from continuing operations and reported separately on the income statement
  - Shown immediately following profit/loss from continuing operations
- Consists of two parts:
  - Profit (loss) from discontinued operations
  - Gain (loss) on disposal of the segment
  - Both components are reported net of applicable taxes

Change in Accounting Policy

- Occurs when the policy used in the current year is different from the one used in the preceding year
  - Voluntary change: Allowed when new policy results in more reliable and relevant presentation
  - Mandatory: Required by standard setters

Effect on Reporting

- Cumulative effect of change to prior years is reported as adjustment to opening retained earnings
  - In statement of changes in equity (IFRS)
  - In statement of retained earnings (ASPE)
- New policy used to report results of current year
- Prior period statements restated
- Effects of change detailed in notes

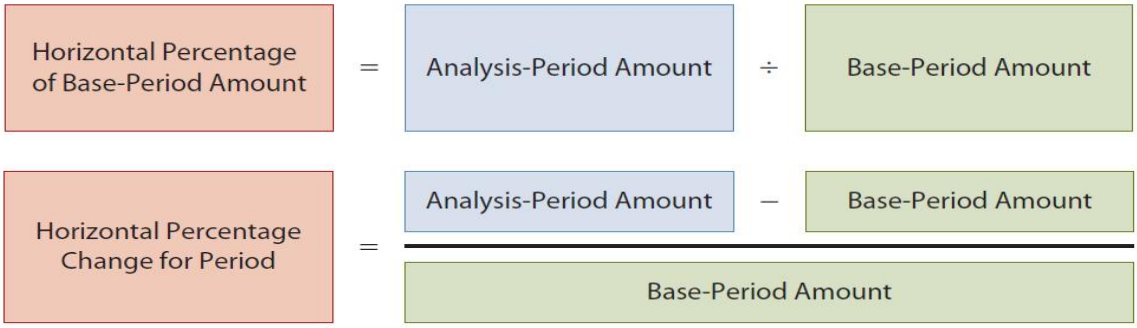
Comparative Analysis

- Three types of comparisons:
  - Intracompany basis – comparisons **within** a company
  - Intercompany basis – comparisons **between** one or more competitor companies
  - Industry averages

Three Tools

- Horizontal analysis (trend analysis)
  - A technique to determine the change over time
    - Percentage of base-period amount
    - Percentage change for the period
- Vertical analysis (common size analysis)
- Ratio analysis

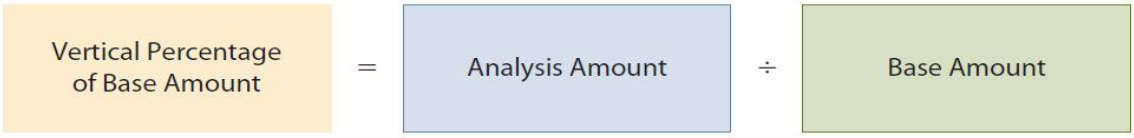
Horizontal Analysis



	2010	2009	2008	2007	2006
Net Sales	$6,051.0	$3,657.6	$8,989.2	$4,764.0	$3,376.8
% of Base-Year Amount	179.2%	108.3%	266.2%	141.1%	100.0%
% Change for Year	65.4%	(59.3)%	88.7%	41.1%	-

Vertical Analysis

- Expresses each item in a financial statement as a percent of a base amount (total assets or net sales)



ANY COMPANY INC. Condensed Statement of Financial Position December 31 (in thousands)				
	2012		2011	
Assets	Amount	Percent	Amount	Percent
Current Assets	$2,139.9	20.3%	$2,271.7	25.1%
Property Plant, and Equipment	8,062.7	76.3%	6,413.3	70.9%
Other Assets	363.1	3.4%	359.9	4.0%
Total Assets	$10.565.7	100%	$9.044.9	100%

Ratio Analysis

- **Liquidity Ratios:** Measure *short-term ability* of the company to pay its maturing obligations and to meet unexpected needs for cash
- **Solvency Ratios:** Measure the ability of the company to survive *over a long period of time*
- **Profitability Ratios:** Measure the earnings or operating success of a company for a *given period of time*

Liquidity Ratios

- Working capital
- Current ratio
- Cash current debt coverage
- Receivables turnover
- Average collection period
- Inventory turnover
- Days in inventory

Working Capital: difference between current assets and current liabilities.

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

HIGHER IS BETTER

Current Ratio: dividing current assets and current liabilities.

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

HIGHER IS GENERALLY BETTER

Cash Current Debt Coverage: Measures short-term debt paying ability (cash basis)

$$\text{Cash Current Debt Coverage} = \frac{\text{Cash Provided By Operating Activities}}{\text{Average Current Liabilites}}$$

HIGHER IS BETTER

Receivables Turnover: Measures the number of times, on average, that receivables are collected during the year.

$$\text{Receivables Turnover} = \frac{\text{Net Credit Sales}}{\text{Average Gross Accounts Receivable}}$$

HIGHER IS BETTER

Average Collection Period: Measures numbers of days receivables are outstanding.

$$\text{Average Collection Period} = \frac{\text{365 Days}}{\text{Receivables Turnover}}$$

LOWER IS BETTER

Inventory Turnover: Measures liquidity of inventory.

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

HIGHER IS BETTER

Days in Inventory: Measures number of days inventory is on hand.

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

LOWER IS BETTER

Solvency Ratios

- Debt to total assets
- Times interest earned
- Cash total debt coverage
- Free cash flow

Debt to Total Assets: Measures % of total assets provided by creditors.

$$\text{Debt to Total Assets} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

LOWER IS BETTER

Times Interest Earned: provides an indication of a company's ability to meet interest payments as they come due

$$\text{Times Interest Earned} = \frac{\text{Profit} + \text{Interest Expense} + \text{Income Tax Expense}}{\text{Interest Expense}}$$

HIGHER IS BETTER

Cash Total Debt Coverage Ratio: Measures long-term debt paying ability (cash basis)

$$\text{Cash Total Debt Coverage Ratio} = \frac{\text{Cash Provided By Operating Activities}}{\text{Average total liabilities}}$$

HIGHER IS BETTER

Free Cash Flow: Measures cash available for paying dividends or expanding operations.

$$\text{Free Cash Flow} = \underset{\text{Operating Activities}}{\text{Net Cash Provided (Used)}} - \underset{\text{Expenditures}}{\text{Net Capital}} - \text{Dividends Paid}$$

HIGHER IS BETTER

Profitability Ratios

- Return on common shareholders' equity
- Profit margin
- Return on assets
- Asset turnover
- Gross profit margin
- Earnings per share (EPS)
- Price-earnings (P-E) ratio
- Payout ratio
- Dividend yield

Return on Common Shareholders' Equity: Measures the company's profitability from the shareholders' viewpoint

$$\text{Return on Common Shareholders Equity} = \frac{\text{Profit Available to Common Shareholders}}{\text{Average Common Shareholders' Equity}}$$

HIGHER IS BETTER

Return on Assets: Measures overall profitability of assets

$$\text{Return on Assets} = \frac{\text{Profit}}{\text{Average Total Assets}}$$

HIGHER IS BETTER

Profit Margin: Measures the percentage of profit generated by each dollar of sales.

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

HIGHER IS BETTER

Asset Turnover: Measures how efficiently assets are used to generate sale.

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

HIGHER IS BETTER

Gross Profit Margin: Measures margin between selling price and cost of goods sold.

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

HIGHER IS BETTER

Earnings per Share: Measures profit earned on each common share.

$$\text{Earnings per Share} = \frac{\text{Profit Available to Common Shareholders}}{\text{Weighted Average Number of Common Shares}}$$

NOT COMPARABLE BETWEEN COMPANIES

Price-Earnings: Measures relationship between market price per share and earnings per share.

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

HIGHER indicates investors expect favourable profitability in future.

Payout Ratio: Measures the percentage of profit distributed in the form of cash dividends to common shareholders

$$\text{Payout Ratio} = \frac{\text{Cash Dividends}}{\text{Profit}}$$

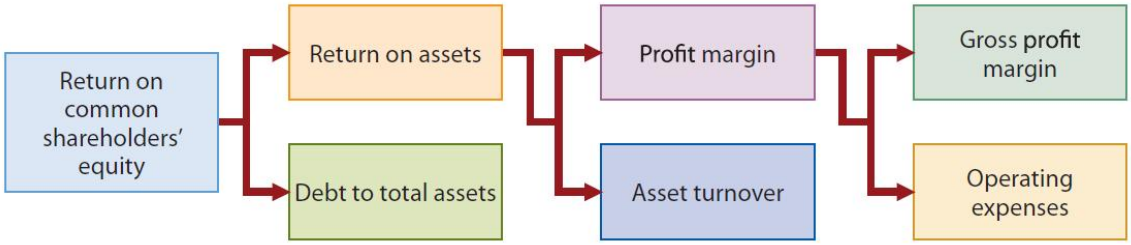
HIGHER IS BETTER if investor is looking for income

Dividend Yield: Measures the profit generated by each share, based on the market price of the shares

$$\text{Dividend Yield} = \frac{\text{Dividend per Share}}{\text{Market Price per Share}}$$

HIGHER IS BETTER if investor is looking for income

Relationship Amongst Profitability Ratios



Limitations of Financial Analysis

- Can be impacted by
  - Alternative accounting principles
  - Professional judgment
  - Comprehensive income
  - Diversification
  - Inflation
  - Economic factors

Part 1. Multiple Choice

1. Which of the following would equal cash received from customers?
   a) Sales plus increase in accounts receivable
   b) Sales plus increase in accounts payable
   c) **Sales plus decrease in accounts receivable**
   d) Sales plus decrease in accounts payable

2. Which of the following would equal the cash paid to suppliers?
   a) Purchases plus change in accounts payable
   b) Purchases plus change in cost of goods sold
   c) Purchases plus change in inventory
   d) Purchases plus change in sales

3. Cash inflows from investing activities would include all of the following except:
   a) Proceeds received from sale of equipment
   b) Proceeds received from sale of investment
   c) Gain on sale of land
   d) Proceeds from sale of buildings

4. Which of the following is not a reconciling item when preparing a bank reconciliation?
   a) Bank service charges not recorded by the corporation
   b) Outstanding cheques
   c) Interest collected on a note receivable by the bank and recorded by the corporation
   d) Outstanding deposits

5. The ending balance on the bank statement for December is $451.25. The company has outstanding cheques of $172.53, outstanding deposits of $362.00 and incurred bank service fees of $12.00 during the month. The adjusted cash balance for the company as of December 31 is:
   a) $451.25
   b) **$540.90**
   c) $628.90
   d) $813.25

6. During a period of rising prices, which cost flow assumption will result in the highest net income?
   a) LIFO
   b) FIFO
   c) Weighted average
   d) Specific identification

7. GAAP requires that property, plant, and equipment be valued at its:
   a) **Historical cost**
   b) Replacement cost
   c) Net realizable value
   d) Present value

8. Assets acquired in a basket purchase are to be allocated a portion of the total price based on their respective:
   a) **Fair market value**
   b) Book value
   c) Present value
   d) Assessed value

9. Assets that produce their greatest benefits to a firm early in their useful life should be amortized using the:
   a) Straight-line method
   b) Declining-balance method
   c) Present value method
   d) Units-of-production method

10. Which of the following is not a characteristic of a liability?
    a) There is a probable future sacrifice of resources
    b) There is a known recipient of the liability
    c) The obligation cannot be avoided
    d) The event giving rise to the liability has already occurred

11. Long-term liabilities are recorded in the books at their:
    a) Net present value
    b) Net amount
    c) Net realizable value
    d) Gross amount

12. Which of the following would be recorded?
    a) Purchase commitments
    b) Partially executed contracts
    c) Contingent gains
    d) A contingent liability that cannot be reasonably estimated

13. If a bond was issued at a premium, the coupon rate was:
    a) Equal to the effective rate
    b) Less than the effective rate
    c) More than the effective rate
    d) Not needed to determine the bond's sale price

14. Unamortized bond premium is reported on the balance sheet as a(n):
    a) Contra-liability account
    b) Contra-asset account
    c) Accumulation account
    d) **Adjunct account**

15. Unamortized bond discount is reported on the balance sheet as a(n):
    a) Contra-liability account
    b) Contra-asset account
    c) Accumulation account
    d) Adjunct account

16. The maximum number of shares that a firm can issue is the number of:
    a) Issued shares
    b) Authorized shares
    c) Outstanding shares
    d) Permissible shares

17. Which of the following statements is true?
    a) Dividends are guaranteed to preferred shareholders
    b) Dividends accumulate on common shares
    c) Dividends are only issued if the board of directors declares them
    d) Dividends are paid to all classes of shares on the same basis

18. Dividends in arrears relate to which of the following?
    a) Cumulative preferred shares
    b) Participating preferred shares
    c) Cumulative common shares
    d) Participating common shares

19. All of the following are common turnover ratios except:
    a) Accounts receivable turnover
    b) Inventory turnover
    c) **Long-term debt turnover**
    d) Accounts payable turnover

20. When reading a common size income statement, the 100% amount represents:
    a) Net income
    b) Gross profit
    c) Operating income
    d) Sales

21. Ratios are useful in explaining the:
    a) Relationship between financial data
    b) Differences between companies
    c) Trends within industries
    d) Reasons for financial performance

22. The return on assets ratio could be used for a:
    a) Financing decision
    b) Liquidity decision
    c) Investment decision
    d) Debt-to-equity decision

Part 2. Long Answers

Cash Flow Statement

The Pro Corporation prepared the following income statement and comparative balance sheets for 2008:

PRO CORPORATION
Income Statement
For the Year Ended December 31, 2008

Sales		$975,000
Less:	Cost of Goods Sold	467,000
Gross Profit		508,000
Less:	Amortization expense	78,600
	Other operating expenses	92, 500
Plus:	Gain on Sale of Equipment	55,000
Income before taxes		391,900
Income taxes		60,000
Net Income		331,900

PRO CORPORATION
Balance Sheet
As of December 31, 2008

Assets	**2008**	**2007**
Cash	$133,900	$5,400
Accounts Receivable	84,600	74,000
Temporary Investments	30,000	38,000
Merchandise Inventory	366,000	204,000
Property, Plant, and Equipment	400,000	350,000
Less: Accumulated Amortization	(85,600)	(63,000)
Total Assets	$948,900	608,400
Liabilities and Shareholders' Equity		
Accounts Payable	$85,000	$109,400
Other Accrued Payables	62,000	79,000
Bonds Payable	140,000	140,000
Common Shares	310,000	210,000
Retained Earnings	331,900	70,000
Total Liabilities & Shareholders' Equity	948,900	608,400

Additional data:
(1) Cash dividends of $70,000 were paid in 2008.
(2) Equipment that initially cost $140,000 was sold for $139,000 in 2008.
(3) The company issued common shares for cash of $100,000 in 2008.

Required:
Prepare a cash flow statement using the indirect approach for 2008.

Capital Assets

ABC Co. purchased a new building on June 30, 2000. A large piece of equipment was included in the sale. The total price negotiated with the seller was $1,230,000 for the basket purchase of the building and equipment. The payment scheme agreed upon with the seller was as follows: ABC made a $500,000 down payment in cash; the remaining amount plus the 8% annual interest was due under a note payable one year from the date of purchase. In addition, on June 30, 2000, ABC paid $10,000 cash to insure the building for the first year of operations (i.e. the insurance cover the period from June 30, 2002 June 30, 2001).

The fair market value of the building on the date of purchase was $1,000,000. The fair market value of the equipment was $500,000.

ABC Co. expected to use the building for 20 years and anticipated a residual value for the building of $300,000. The equipment was expected to be used for 10 years with a residual value of $110,000. The equipment was amortized using straight-line amortization and the building was amortized using the double-declining method.

On January 1, 2006, ABC Co. decided to sell the equipment. The equipment was sold for $200,000.

Required: (*narrative explanations are not required, however, all supporting calculations must be shown)*

1. Prepare the journal entry/entries made by ABC Co. on June 30, 2000. Assume that ABC maintains separate accounts for the building and equipment

2. Prepare the journal entry to record the amortization expense for the building for the year ended December 31, 2000.

3. Prepare the journal entry to record the amortization expense for the equipment for the year ended December 31, 2000.

4. Prepare the section of the balance sheet for the building and equipment as of December 31, 2000.

5. Prepare the journal entry to record the sale of the equipment on January 1, 2006.