

VLERICK FINANCIAL ACCOUNTING COURSE

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1 INTRODUCTION

1.1 ACCOUNTING

1.1.1 Definition

- = Language of business
- = The process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information

1.1.2 Elements

- Financial accounting
 - Provision of information to external parties outside the organisation
- Management accounting
 - Provision of information to people within the organisation to help them make better decisions
- Cost accounting
 - Calculation of product costs
- Bookkeeping
 - Bookkeeping is the procedural element of accounting that processes the accounting data

1.1.3 Concepts

- The entity concept
 - States that an organization is an economic entity that keeps its affairs separate from those of the owner(s)
- The going-concern concept
 - States that the entity will remain in operation for the foreseeable future
- The stable-monetary-unit concept
 - States that each dollar has the same purchasing power as any other dollar at any other time
- Accountants slice time into small segments and prepare financial statements to show progress for specific time periods
 - The most basic accounting period is one year
 - Companies prepare financial statements for interim periods of less than one year
- Conservatism in accounting means
 - Reporting items in the financial statements at amounts that lead to the gloomiest immediate financial results
- Conservatism guidelines include
 - “Anticipate no gains, but provide for all probable losses”
 - “If in doubt, record an asset at the lowest reasonable amount and a liability at the highest reasonable amount”
- The materiality concept states
 - That a company must perform proper accounting only for items and transactions that are significant to the business’s financial statements
 - That information is material when its inclusion and correct presentation in the financial statements would cause someone to change a decision because of that information

1.2 ACCOUNTING PRINCIPLES

1.2.1 Principles

- The reliability (objective) principle
 - States that accounting records and statements are based on the most reliable data available and documented by objective evidence
- The cost principle
 - States that acquired assets and services should be recorded at their actual (historical) cost and should maintain that historical cost for as long as they are owned
- The revenue principle tells accountants
 - When to record revenue with a journal entry
 - Revenue is recorded when it is earned
 - It is earned when the business has delivered a completed good or service to the customer
 - The amount of revenue to record
 - The amount is equal to the cash value of the goods or services transferred to the customer
- The matching principle
 - Is the basis for recording expenses
 - Directs accountants to
 - Identify all expenses incurred during the accounting period
 - Measure the expenses
 - Match expenses against revenues during the same period
 - The matching principle matches the expense of a period against the revenue earned during the period. To match an expense means to subtract the expense from the revenue in order to measure net income or net loss
 - Matching principle
 - A natural link (cause and effect) exists between revenues and some types of expenses
 - Sales commissions
 - Cost of goods sold
 - Some expenses are not linked with sales but with a particular time period
 - Rent expense
 - Salary expense
- The consistency principle
 - States that businesses should use the same accounting methods and procedures from period to period
 - Makes it possible to compare a company's financial statements from one period to the next
 - Does not require that a company never change its accounting methods
 - Requires that a company disclose the effect of the change on net income
- The disclosure principle
 - Holds that a company's financial statements should report enough information for outsiders to make knowledgeable decisions about the company
 - Requires relevant, reliable, and comparable information about a company's economic affairs
 - Requires the disclosure of the inventory method used

1.3 FINANCIAL STATEMENTS

1.3.1 Accounting equation

- The accounting equation presents the resources of the business and the claims to those resources
 - Economic Resources = Claims to Economic Resources
 - Assets = Liabilities + Owners' Equity

- Asses =
 - + Liabilities
 - + Owners equity =
 - + Paid in capital
 - + retained earnings =
 - + revenue
 - - expenses
 - - dividends

1.3.2 Statements

How well did the company perform during the period?	Revenues - <u>Expenses</u> Net income (loss)	Income statement (Statement of operations or Statement of earnings)
Why did the company's retained earnings change during the period?	Beginning R.E. +Net income (-loss) -Dividends Ending R.E.	Statement of retained earnings (Statement of stockholders' equity)
What is the company's financial position at the end of the period?	Assets = Liabilities + Owners' Equity	Balance sheet (Statement of financial position)
How much cash did the company generate and spend during the period?	Operating cash flows ± Investing cash flow ± Financing cash flow Increase (decrease) in cash during the period	Statement of cash flows

- Balance sheet formats
 - The account format
 - Lists the assets at left and the liabilities and stockholders' equity at right
 - The report format
 - Lists the assets at the top, followed by the liabilities and stockholders' equity below
- Income statement formats
 - A single-step income statement
 - Lists all the revenues together under a heading such as Revenues or Revenues and Gains. The expenses appear in a separate category titled Expenses, Costs and Expenses, or Expenses and Losses
 - A multi-step income statement
 - Contains a number of subtotals to highlight important relationships among revenues and expenses

Adjusting entries can be grouped into three basic categories:

- Deferrals
 - An adjustment of an asset or a liability for which the business paid or received cash in advance
- Depreciation
 - The systematic allocation of the cost of a plant asset to expense over the asset's useful life
- Accruals
 - The recording of an expense or a revenue before paying or receiving cash

Type of Account

Category of Adjusting Entry	Debited	Credited
○ Prepaid expense	Expense	Asset
○ Depreciation	Expense	Contra asset
○ Accrued expense	Expense	Liability
○ Accrued revenue	Asset	Revenue
○ Unearned revenue	Liability	Revenue

1.3.8 Adjustment journal entries

Deferral on expense

- We pay €3000 cash for a 3 month rent in month 11
 - At moment of payment

Prepaid rent	3,000	
cash		3,000
 - At year end

Rent expense	1,000	
Prepaid rent		1,000
 - Next year in month 2

Rent expense	2,000	
Prepaid rent		2,000

Deferral on revenue

- We receive 10.000 cash for a revenue to be performed over 5 month in month 10
 - At moment of payment

Cash	10,000	
Unearned revenue		10,000
 - At year end

Unearned revenue	4,000	
Service revenue		4,000
 - Next year in month 3

Unearned revenue	6,000	
Service revenue		6,000

Accrual on revenue

- We receive in month 2 of next year 12.000 cash for a revenue that starts in month 9 of this year (4 months to go).
 - At year end

Account receivable	8,000	
Service revenue		8,000

○ Next year in month 3		
Cash	12,000	
Service revenue		4,000
Accounts receivable		8,000

Accrual on expense

- We pay in month 3 of next year 4.000 cash for an expense (~salary) that starts in month 11 of this year (1 month to go).

○ At year end		
Salary expense	1,000	
Salary payable		1,000

○ Next year in month 3		
Salary payable	1,000	
Salary expense	3,000	
Cash		4,000

Depreciation

- We invest in furniture of a cost of €50.000. After 5 years the residual value is €0.
- We use the straight line depreciation method.

○ Upon investment		
Furniture	50,000	
Cash		50,000

○ At year end of year 1		
Depreciation expense – furniture	10,000	
Accumulated depreciation – furniture		10,000

➔ Bookvalue of furniture 40,000

○ At year end of year 2		
Depreciation expense – furniture	10,000	
Accumulated depreciation – furniture		10,000

➔ Bookvalue of furniture 30,000

1.3.9 Closing the books

The following are the steps in closing the accounts of a corporation:

- Debit each revenue account for the amount of its credit balance. Credit Retained Earnings for the sum of the revenues
 - This entry transfers the sum of the revenues to the credit side of Retained Earnings
- Credit each expense account for the amount of its debit balance. Debit Retained Earnings for the sum of the expenses
 - This entry transfers the sum of the expenses to the debit side of Retained Earnings
- Credit the Dividends account for the amount of its debit balance. Debit the Retained Earnings account
 - This entry transfers the dividends amount to the debit side of the Retained Earnings account

1.3.10 Accounting cycle

- economic event
- prepare source documents
- enter transactions in general journal
- post entries to general ledger
- prepare trial balance
- journalise and post adjusting entries
- prepare adjusted trial balance
- prepare financial statements:
 - income statement
 - statement on changes in owner's equity
 - balance sheet
- close the accounts
- prepare post-closing trial balance

2 ASSETS

2.1 CASH

Companies usually combine all cash amounts into a single total called “Cash and Cash Equivalents” on the balance sheet. Cash equivalents include liquid assets such as

- Time deposits
- Certificates of deposit

2.1.1 Bank reconciliation

Reconciling items are treated as follows:

To the bank balance always

- Add deposits
- Subtract outstanding checks
- Add or subtract corrections of bank errors, as appropriate

To the book balance always

- Add bank collection items, interest revenue, and EFT receipts
- Subtract service charges, NSF checks, and EFT payments
- Add or subtract correction of book errors, as appropriate

2.1.2 Cash budget

To prepare for future cash needs, managers proceed in four steps:

- Start with the entity’s cash balance at the beginning of the period
- Add the budgeted cash receipts and subtract the budgeted cash payments
 - Revenue and expense transactions (operating activities from the income statement)
 - Asset acquisition and sale transactions (investing activities from the statement of cash flows)
 - Liability and stockholders’ equity transactions (financing activities from the statement of cash flows)

The beginning balance plus the expected receipts minus the expected payments equals the expected cash balance at the end of the period

Compare the expected cash balance to the desired, or budgeted, cash balance at the end of the period

- Excess cash can be invested
- Cash balances below the budgeted balance may require additional financing to reach the desired cash balance

2.2 SHORT TERM INVESTMENTS AND RECEIVABLES

2.2.1 Short term investments

Trading investments are

- Purchased as short-term investments
- Equity or debt securities of another company
- Accounted for using the market-value method
 - Recorded at cost and later adjusted to current market value for reporting on the balance sheet

- Case: we buy a short term investment in year 0 for € 60,000 that gets valued for € 55,000 at year end and we sell it for €66,000 in year 1.

○ Upon investment			
Short term investment	60,000		
Cash			60,000
○ At year end			
Unrealized loss on short term investment	5,000		
Short term investment			5,000
○ Upon sale			
Short term investment	66,000		
Short term investment			55,000
Realized gain			11,000

2.2.2 Receivables

2.2.2.1 *Accounts receivable*

Accounts receivable (trade receivables) are

- Amounts owed to the business by customers
- Classified as current assets
- Summarized in the general ledger control account showing the total amounts receivable from all customers
- Detailed in the subsidiary ledger of accounts receivable with a separate account for each customer

2.2.2.2 *Uncollectible accounts*

Accountants label this cost:

- Uncollectible-account expense or
- Doubtful account expense or
- Bad debt expense

There are two methods to account for uncollectible-account expense:

- The allowance method
- The direct write-off method

The allowance method records collection losses on the basis of estimates instead of waiting to see which customers the business will not collect from

The percent-of-sales method

- Computes uncollectible-account expense as a percentage of net credit sales
- Is an income statement approach because it focuses on the amount of expense to be reported on the income statement

- Case: trial balance before adjustment

Accounts receivable	60,000	
Allowance for uncollectible accounts		1,500
Sales revenue		1,000,000

- Adjustment journal entries (sales revenue is not impacted!)
 - historically 1% of sales revenue cannot be collected

Uncollectible accounts expense	10,000	
Allowance for uncollectible accounts		10,000

- Result in the balance:

Accounts receivable	60,000
Allowance for uncollectible accounts	11,500
Sales revenue	1,000,000

- When an account is recognized to be uncollectible

Allowance for uncollectible accounts	XXX	
Accounts receivable		XXX

The aging-of-accounts-receivable method

- Analyzes specific individual accounts receivable according to the length of time they have been receivable
- Is a balance-sheet approach because it focuses on accounts receivable

Customer Name	Age of Account				Total Balance
	1-30 Days	31-60 Days	61-90 Days	Over 90 Days	
T-Bar-M Co.	\$20,000				\$ 20,000
Chicago Pneumatic Parts	10,000				10,000
Sarasota Pipe Corp.		\$13,000	\$10,000		23,000
Oneida, Inc.			3,000	\$1,000	4,000
Other Accounts*	<u>39,000</u>	<u>12,000</u>	<u>2,000</u>	<u>2,000</u>	<u>55,000</u>
Totals	<u>\$69,000</u>	<u>\$25,000</u>	<u>\$15,000</u>	<u>\$3,000</u>	<u>\$112,000</u>
Estimated percent uncollectible	x 0.1%	x 1%	x 5%	x 90%	
Allowance for Uncollectible Accounts balance	<u>\$ 69</u>	+ <u>\$ 250</u>	+ <u>\$ 750</u>	+ <u>\$2,700</u>	= <u>\$ 3,769</u>

*Each of the "other accounts" would appear individually

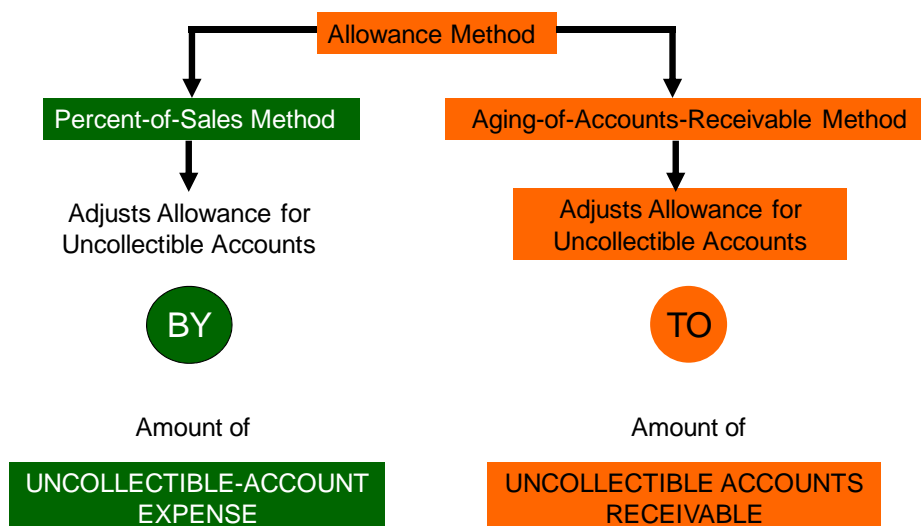
- Case of diagram above: trial balance before adjustment

Accounts receivable	112,000
Allowance for uncollectible accounts	1,100

- At year end: journal entry

Uncollectible accounts expense	2,669	
Allowance for uncollectible accounts		2,669

(comes from 3,769 – 1,100)



Under the direct write-off method of accounting for uncollectible receivables

- The company waits until it decides that a customer's account receivable is uncollectible
- The accountant records Uncollectible-Account Expense and writes off the customer's Account Receivable with a credit
- This method is defective for two reasons:
 - Since no Allowance for Uncollectibles is established, assets are overstated on the balance sheet
 - The direct write-off may not match the uncollectible-account expense of each period against the revenue of the period in which the sale was made

2.2.2.3 Notes receivable

- Notes receivables
 - A formal promise made by a debtor in writing to pay the creditor a definite sum on a specific future date--the maturity date
 - A current asset if due within one year or less
 - A long-term receivable (investment) if due beyond one year
- The term of the note runs from August 31, 20X2, to August 31, 20X3, when Lauren Holland (the maker) promises to pay Continental Bank (the payee) the principal of \$1,000 plus 9% interest for the year. After Lauren Holland signs the note Continental Bank gives her \$1,000 cash. The bank's entries follow, assuming a December 31 year end for Continental Bank:

20X2			
	Aug. 31 Note Receivable - L. Holland	1,000	
	Cash		1,000
	Made a loan		

- At December 31, Continental Bank must accrue interest revenue for four months (September - December) as follows:

	Dec. 31 Interest Receivable ($\$1,000 \times .09 \times 4/12$)	30	
	Interest Revenue		30
	Accrued interest revenue		

- Some companies sell their merchandise on notes receivable (versus selling on accounts receivable). This arrangement often occurs when
 - The payment term extends beyond the customary accounts receivable period
 - A trade customer's account receivable is past due
- Some companies sell their notes receivable to financial institutions, who then collect the notes and earn the interest
 - This practice is called discounting notes receivable because the seller receives a discounted price for the note
 - The seller takes less money to receive immediate cash and shift the credit risk to another party

2.2.2.4 Speeding up cash in

Discount on sales

- Sales on Aug 4th of € 50,000 on account. Customer gets 2% discount if paid within 10 days.

○ On August 4 th :			
Accounts receivable	50,000		
Sales revenue			50,000
○ If paid within 10 days			
Cash	49,000		
Sales discount	1,000		
Accounts receivable			50,000

Banc card sales

Cash	$(1-y\%) * X$		
Financing accounts (~operating expense)	$y\% * X$		
Accounts receivable			X

Factoring

Cash	X-y		
Financing expense	y		
Accounts receivable			X

Selling notes receivable

Cash	X-y		
Financing accounts expense	y		
Notes receivable			X

Selling notes receivable X with interest z recorded in a previous period:

- Also include the interest revenue from the previous period

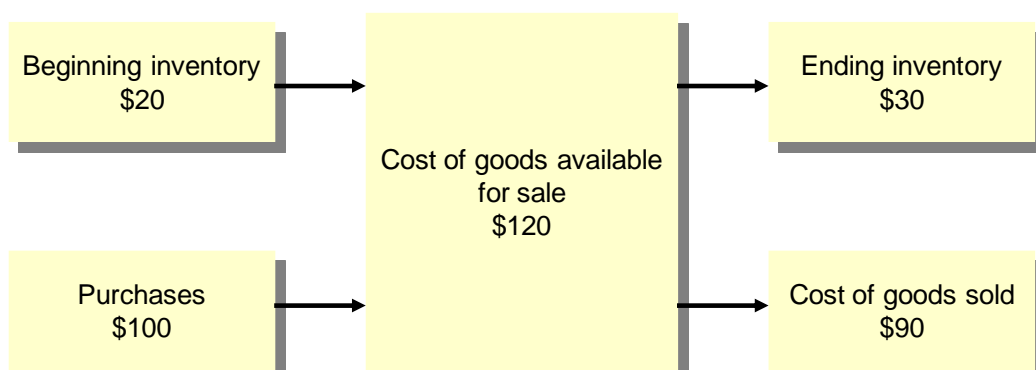
Cash	X-y		
Financing expense	y		
Interest revenue	z		
Notes receivable			X
Interest receivable			z

2.3 INVENTORY

2.3.1 Cost of goods sold

Cost of goods sold:

Beginning inventory (2 units @ \$10 each)	\$ 20
+ Purchases of inventory during this period (10 units @ \$10 each)	<u>100</u>
= Cost of goods available for sale (12 units @ \$10 each)	120
- Ending inventory (3units @ \$10 each)	<u>(30)</u>
= Cost of goods sold (9 units @ \$10 each)	\$ 90



To compute the cost of goods sold and the cost of inventory on hand, the business's actual cost must be assigned to each item sold. The four costing methods that GAAP allows are:

- Specific unit cost
- Weighted-average cost
- First-in, first-out (FIFO) cost
- Last-in, first-out (LIFO) cost

Summary of Income Effects - When inventory unit costs are increasing

FIFO	LIFO	Weighted-Average
Highest ending inventory Lowest cost of goods sold Highest gross profit	Lowest ending inventory Highest cost of goods sold Lowest gross profit	Results fall between the extremes of FIFO and LIFO

Summary of Income Effects - When inventory unit costs are decreasing

FIFO	LIFO	Weighted-Average
Lowest ending inventory Highest cost of goods sold Lowest gross profit	Highest ending inventory Lowest cost of goods sold Highest gross profit	Results fall between the extremes of FIFO and LIFO

2.3.2 Inventory costing methods

- LIFO
 - best matches the current value of cost of goods sold with current revenue by assigning to this expense the most recent inventory costs
 - LIFO is not allowed in some foreign countries, e.g., Australia and the U. K.
 - Companies that use LIFO must use another accounting method for their inventories in these foreign countries
- FIFO
 - reports the most current inventory costs on the balance sheet
 - produces inventory profits
 - overstates income by so-called inventory profit during periods of inflation
 - Inventory profit is the difference between gross profit figured on the FIFO basis and gross profit figured on the LIFO basis
 - The replacement cost of inventory is more closely approximated by the cost of goods sold under LIFO than by FIFO
 - Most countries permit FIFO and weighted-average cost methods
- LOWER-OF-COST-OR-MARKET RULE
 - The business must write down the value of its goods if the replacement cost of inventory falls below its historical cost

Tax payments

- LIFO results in the lowest tax payments when prices are rising
- FIFO results in the lowest tax payments when inventory prices are decreasing
- The weighted-average method produces amounts between the extremes of LIFO and FIFO

Case

Beginning inventory	100,000
Purchases	560,000
Sales	900,000
Cost of goods sold	540,000

- Perpetual inventory system
 - Every inventory movement is recorded. For instance:

Inventory	560,000	
Accounts payable		560,000
Accounts receivable	900,000	
Revenue		900,000
Cost of goods sold	540,000	
Inventory		540,000
 - On the balance sheet

Inventory	120,000
Net income	360,000
- Periodic inventory system
 - No inventory account

Accounts receivable	900,000	
Revenue		900,000
Purchases	560,000	
Accounts payable		560,000
 - Year end adjustments

Cost of goods sold	540,000	
Inventory	20,000	
Purchases		560,000

2.3.3 Perpetual inventory

- Keeps a running record of all goods bought and sold
- Inventory counted once a year
- Used for all types of goods
- Recording transactions in the perpetual system
 - Inventory purchases are recorded by debiting the Inventory account
 - Sales are recorded by debiting Cash or Accounts Receivable and crediting Sales Revenue
 - Sales also require a debit to Cost of Goods Sold and a credit to Inventory

2.3.4 Periodic Inventory System

- Does not keep a running record of all goods bought and sold
- Inventory counted at least once a year
- Used for inexpensive goods

2.3.5 Net purchases and net sales

- Net Amount of Purchases

Purchase price of the inventory from the seller	\$600,000
+Transportation cost (freight in)	4,000
- Purchase returns for damaged/unsuitable goods	(25,000)
- Purchase allowances granted by the seller	(5,000)
- Purchase discounts for early payment	<u>(14,000)</u>
=Net purchases of inventory	\$560,000
- The cost of the inventory of \$560,000 is the net amount of the purchase
 - A purchase discount is a decrease in the cost of purchases earned by making an early payment to the vendor
 - A purchase return is a decrease in the cost of purchases because the buyer returned the goods to the seller
 - A purchase allowance is a decrease in the cost of purchases because the seller granted the buyer a subtraction (an allowance) from the amount owed
- Net purchases and net sales
 - Net sales are computed exactly as net purchases, except there is no freight-in to account for
 - Net Sales = Sales - Sales Returns & Allowances - Sales Discounts
 - Freight-out is the expense of delivering merchandise to customers and is included in the Delivery Expense account

2.4 PLANT ASSETS AND INTANGIBLES

2.4.1 Cost principle

Cost principle:

- all costs that are incurred to bring the good to its intended life
 - purchase costs
 - other accounts paid to acquire (broker, tax ...)
 - amount paid to make it ready for use
- remarks
 - capitalizing interests expenses can be done during period of construction of a plant asset
 - Lump sum purchase: you buy land and building at once, but you have to split it in the books: Use the relative sales method

Acquire land and building for	4
Land valued at	2
Building valued at	3
Total separate value	5

 Put the land in the books at 40% of 2 and the building at 60% of 3
 - Capital expenditures are no revenue expenditures. Capital expenditure only if:
 - Or productivity increases
 - Or useful life increases

2.4.2 Depreciation of plant assets

- Depreciation
 - Is not a process of valuation
 - Does not mean that the business sets aside cash to replace assets as they wear out
- Accumulated depreciation does not represent a growing amount of cash

- To measure depreciation for a plant asset one must know the
 - Cost
 - Estimated useful life
 - The length of service the business expects to get from the asset--an estimate of how long an asset will be useful
 - Useful life may be expressed in years, units of output, miles, or another measure
 - Estimated residual value (scrap value)
 - The expected cash value of an asset at the end of its useful life
 - Estimated residual value is not depreciated because the business expects to receive this amount from disposing of the asset

- The four methods for computing depreciation are
 - Straight line
 - The straight-line method best meets the matching principle for a plant asset that generates revenue evenly over time
 - Units of production
 - The units-of-production method best fits those assets that wear out because of physical use rather than obsolescence
 - Declining-balance
 - The accelerated method (DDB) applies best to those assets that generate greater revenue earlier in their useful lives
 - Steps: determine depreciation rate (twice the straight line), ignore residual value and then calculate depreciation value per period.
 - Sum-of-years'-digits

- A fully depreciated asset is
 - An asset that has reached the end of its estimated useful life
 - An asset on which no more depreciation is recorded
- The asset and its depreciation account remain in the ledger with no additional depreciation entries
- An asset can be used after it is fully depreciated

- Comments
 - The method used for depreciating can be different for accounting or tax reasons
 - If you are allowed to
 - This leads to tax deferrals
 - Partial year depreciation to be recorded at end of year: case

Cost on April 1st	500,000	
Estimated useful life in years	20	
Rest value	80,000	
	Straight line	DDB
Depreciation end of year 1	15,750	37,500
This is 3/4 th of what would have been recorded for a full first year		
Depreciation end of year 2	21,000	46,250
Continue normally from here on		

2.4.3 Disposal of plant assets

- Before accounting for the disposal of the asset, the business should bring depreciation up to date to measure the asset's final book value
- To account for disposal, credit the asset account and debit its related accumulated depreciation account

- Suppose Wal-Mart store fixtures that cost \$4,000 are disposed of in this manner. Accumulated depreciation is \$3,000, and book value is therefore \$1,000. Disposal of these store fixtures records a loss as follows:

Accumulated Depreciation - Store Fixtures	3,000	
Loss on Disposal of Store Fixtures	1,000	
Store Fixtures		4,000

- A gain is recorded when an asset is sold for a price greater than the asset's book value
 - Gains increase net income
- A loss is recorded when the sale price is less than book value
 - Losses decrease net income
- Businesses often trade in their old plant assets for similar assets that are newer and more efficient. In many cases, the business simply transfers the book value of the old asset plus any cash payment into the new asset account

2.4.3.1 Junking

- Fully depreciated

Accumulated depreciation	X	
Asset		X
- Not fully depreciated

Accumulated depreciation	X-Y	
Loss on disposal (~other losses)	Y	
Asset		X

2.4.3.2 Selling

- Case: sell this asset on July 1st in year 5

Cost on Jan 1 st of year 1	4,000	
Estimated useful life in years	8	
Rest value (straight line depreciation)	0	
Depreciation expense	5,000	
Accumulated depreciation - asset		5,000
Cash	2,000	
Accumulated depreciation	2,250	
Asset		4,000
Gain		250

2.4.3.3 Changing

- Old asset

Old asset	9,000	
Accumulated depreciation	8,000	
Rest value	1,000	
- Case 1:

New asset (market value)	14,000	
Cash payment upon exchange	11,000	
Journal entries:		
New asset (book value)	12,000	
Accumulated depreciation	8,000	
Cash		11,000
Old asset		9,000

○ Case 2:		
New asset (market value)	9,000	
Cash payment upon exchange	11,000	
Journal entries:		
New asset (book value)	9,000	
Accumulated depreciation	8,000	
Loss	3,000	
Cash		11,000
Old asset		9,000

2.4.4 Natural resources

- Natural resources are assets in the ground (oil) or on top of the ground (timber)
- Depletion expense is
 - That portion of the cost of natural resources that is used up in a particular period
 - Computed in the same way as units-of-production depreciation

2.4.5 Intangibles

- Intangible assets are
 - Long-lived assets that are not physical in nature
 - Are recorded at acquisition cost and then systematically written off
- Amortization is
 - The systematic allocation of an intangible's cost to expense over its useful life
 - Generally computed on a straight-line basis over a maximum period of 40 years
 - This is sometimes in contrast with the patent life that can be shorter
- Obsolescence often cuts an intangible's useful life shorter than its legal life
- Amortization expense for an intangible asset can be written off directly against the asset account rather than held in an accumulated amortization account
- Copyrights are exclusive rights to reproduce and sell a book, musical composition, film, or other work of art
 - Copyrights extend 50 years beyond the author's life
- Trademarks and trade names (brand names) are distinctive identifications of products or services
 - The cost of a trademark is amortized over its useful life, not to exceed 40 years
- Franchises and licenses are privileges granted by a private business or a government to sell a product or service in accordance with specified conditions
 - The costs of franchises and licenses are amortized over their useful lives rather than over legal lives, not to exceed 40 years
- A leasehold is a prepayment of rent that a lessee (renter) makes to secure the use of an asset from a lessor (landlord)
- Goodwill is the excess of the cost of an acquired company over the sum of the market values of its net assets (assets minus liabilities)
- Comment: check book p387 on the impairment of goodwill

- The cost of research and development
 - Is one of a company's most valuable intangible assets
 - Is expensed as it is incurred
- International accounting
 - Many international companies record goodwill as a decrease in owners' equity
 - Since goodwill is not amortized, their net income is higher than a U.S. company's would be in a similar situation

2.4.6 Plant Assets and Related Expenses

- Capitalize or expense a cost?
 - General rule: Capitalize all costs that provide *future* benefits for the business. Expense all costs that provide *no future* benefit.
- Capitalize or expense:
 - Cost associated with a new asset?
 - Capitalize all costs that bring the asset to its intended use.
 - Cost associated with an existing asset?
 - Capitalize only those costs that add to the asset's usefulness or its useful life. Expense all other costs as maintenance or repairs.
 - Interest cost incurred to finance?
 - Capitalize interest cost only on assets constructed by the business for its own use. Expense all other interest cost.
- Which depreciation method to use:
 - For financial reporting?
 - Use the method that best matches depreciation expense against the revenues produced by the asset.
 - For income tax?
 - Use the method that produces the fastest tax deductions (MACRS). A company can use different depreciation methods for financial reporting and for income tax purposes.

3 STOCKHOLDERS EQUITY

3.1 GENERAL

- Stockholders' equity is divided into two main parts:
 - Paid-in capital (contributed capital)
 - The amount of stockholders' equity that the stockholders have contributed to the corporation
 - Retained earnings
 - The amount of stockholders' equity that the corporation has earned and not given back to the stockholders
- Comparison of Common Stock, Preferred Stock, and Long-Term Debt

	Common Stock	Preferred Stock	Long-Term Debt
Investment risk	High	Medium	Low
Corporate obligation to repay principal	No	No	Yes
Dividends/interest	Dividends	Dividends	Tax-deductible interest expense
Corporate obligation to pay dividends/interest	Only after declaration	Only after declaration	At fixed dates
Fluctuation in market value	High	Medium	Low

3.2 STOCK

3.2.1 Issuing stock

- Issuing Common Stock at Par
 - Suppose IHOP's common stock carries a par value of \$10 per share. The stock issuance entry of 3.2 million shares at par value would be

Jan. 8 Cash (3,200,000 x \$10)	32,000,000	
Common Stock		32,000,000
To issue common stock at par		

- Common stock issued for a price above par value creates a premium
- Both the par value of a stock and the premium are part of paid-in capital
- A company neither earns a profit nor incurs a loss when it sell its stock to, or buys its stock from, its own stockholders

- Issuing Common Stock at a price above Par
 - With a par value of \$0.01, IHOP's entry to record the issuance of the stock is:

July 23 Cash (3,200,000 x \$10)	32,000,000	
Common Stock (3,200,000 x \$0.01)		32,000
Paid-in Capital in Excess of Par-Common (3,200,000 x \$9.99)		31,968,000
To issue common stock at a premium		

- Assuming 40,000,000 shares of common stock authorized and retained earnings of \$26,000,000, IHOP Corp. would report stockholders' equity on its balance sheet as follows:

Common stock, \$0.01 par, 40 million shares authorized, 3.2 million shares issued	\$ 32,000
Paid-in capital in excess of par	<u>31,968,000</u>
Total paid-in capital	32,000,000
Retained earnings	<u>26,000,000</u>
Total stockholders' equity	\$58,000,000

- Issuing No - Par common stock
 - When a company issues no-par stock, it debits the asset received and credits the stock account. Glenwood Corporation issues 3,000 shares of no-par common stock for \$20 per share. The stock issuance entry is:

Aug. 14 Cash (3,000 x \$20)	60,000	
Common Stock		60,000
To issue no-par common stock		

- There is no Paid-in Capital in Excess of Par for true no-par stock
- Issuing No-Par Common Stock With a Stated Value
 - Accounting for no-par stock with a stated value is identical to accounting for par value stock
 - The premium account for no-par common stock with a stated value is entitled Paid-in Capital in Excess of Stated Value--Common

- Issuing Common Stock for Assets Other Than Cash
 - When a corporation issues stock in exchange for assets other than cash, it records the assets received at their current market value and credits the capital accounts accordingly. Kahn Corporation issued 15,000 shares of its \$1 par common stock for equipment worth \$4,000 and a building worth \$120,000. Kahn's entry is

Nov. 12 Equipment	4,000	
Building	120,000	
Common Stock (15,000 x \$1)		15,000
Paid-in Capital in Excess of Par-Common (\$124,000 - \$15,000)		109,000
To issue common stock in exchange for equipment and a building		

- Issuing Preferred Stock
 - Accounting for preferred stock follows the pattern illustrated for common stock
 - Accounting for no-par preferred stock follows the pattern illustrated for no-par common stock
 - Items are listed in the stockholders' equity section of the balance sheet in the following order: preferred stock, common stock, and retained earnings

3.2.2 Treasury stock: purchasing and selling

- Corporations may purchase their own stock for several reasons
 - The company has issued all its authorized stock and needs the stock for distributions to employees under stock purchase plans
 - The purchase helps support the stock's market price by decreasing the supply of stock available to the public
 - The business is trying to increase net assets by buying its shares low and hoping to sell them for a higher price later
 - Management wants to avoid a takeover by an outside party
- The purchase of treasury stock decreases the company's assets and its stockholders' equity

Treasury stock (recorded at cost)	XXX	
Cash		XXX

Treasury stock is valued (per unit) following FIFO, LIFO, ...

- The treasury stock account has a debit balance
- Treasury stock is recorded at cost, without reference to the stock's par value
- Sale of treasury stock at cost
 - If the stock is sold for the same price that the corporation paid to reacquire it, the entry is a debit to Cash and a credit to Treasury Stock for the same amount

Cash	XXX	
Treasury stock		XXX

- Sale of treasury stock above cost
 - If the sale price of treasury stock is greater than its reacquisition cost, the difference is credited to the account Paid-in Capital from Treasury Stock Transactions because the excess came from the company's stockholders
- Paid-in Capital from Treasury Stock Transactions is reported with other paid-in capital accounts on the balance sheet
 - Suppose Jupiter Drilling Company resold its treasury shares for \$9 per share (cost was \$7.50 per share). The entry is:

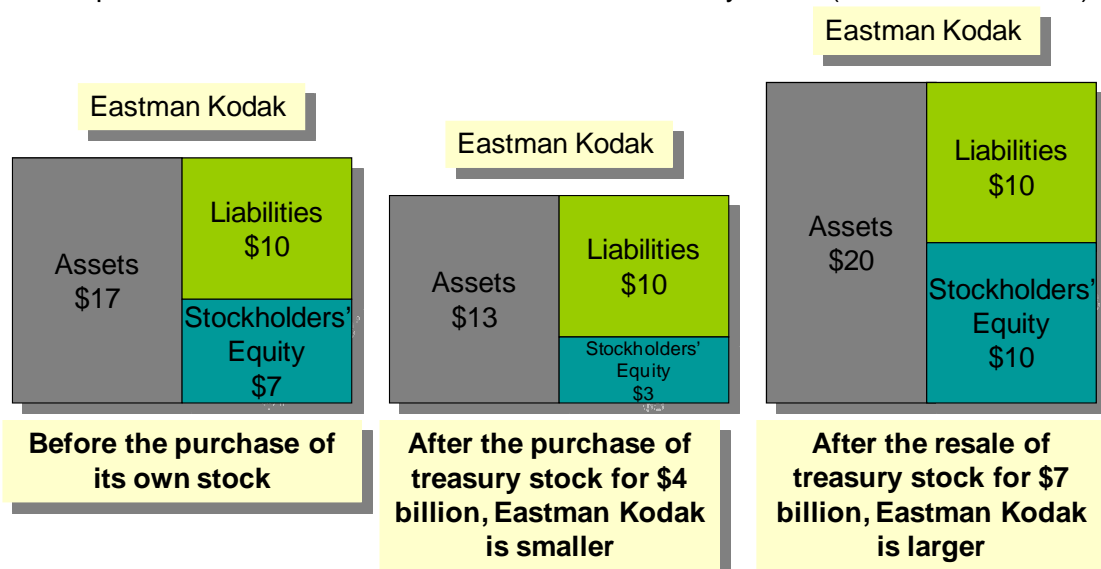
Dec. 7 Cash (1,000 x \$9)	9,000	
Treasury Stock, Common		7,500
Paid-in Capital from Treasury Stock Transactions		1,500

To sell treasury stock at \$9 per share

- Sale of treasury stock below cost
 - If treasury stock is sold below cost, the difference between these two amounts is debited to Paid-in Capital from Treasury Stock Transactions if this account has a credit balance
 - If this account's balance is too small, then the company debits Retained Earnings for the remaining amount

Cash	XXX	
Paid in capital from treasury stock transactions (for as much there is available in this account)	XX	
Retained earnings (if the paid in capital from treasury stock transactions is not sufficient)	X	
Treasury stock		XXXXX

- Example: effects of a Purchase and Resale of Treasury Stock (amounts in billions)



3.3 RETAINED EARNINGS AND DIVIDENDS

- The retained Earnings account carries the balance of the business's net income less its net losses and less any declared dividends accumulated over the corporation's lifetime
- The Retained Earnings account is not a reservoir of cash waiting for the board of directors to pay dividends to the stockholders
- A retained earnings deficit arises when a corporation's lifetime losses and dividends exceed its lifetime earnings
- The deficit is subtracted from the sum of the other equity accounts to determine total stockholders' equity
- Declaration of a \$50,000 cash dividend is recorded by debiting Retained Earnings and crediting Dividends Payable, as follows:

June 19	Retained Earnings	50,000	
	Dividends Payable		50,000
	To declare a cash dividend		

- Payment of the dividend is recorded by debiting Dividends Payable and crediting Cash:

July 2	Dividends Payable	50,000	
	Cash		50,000
	To pay a cash dividend		

- Dividends on cumulative and noncumulative preferred stock
 - Suppose Pine Industries passed the 2001 preferred dividend of \$157,500. Before paying dividends to its common stockholders in 2002, the company must first pay preferred dividends of \$157,500 for both 2001 and 2002, a total of \$315,000. If the company declares a \$500,000 dividend in 2002, the entry to record the declaration is as follows:

Sep. 6	Retained Earnings	500,000	
	Dividends Payable, Preferred (\$157,500 x 2)		315,000
	Dividends Payable, Common (\$500,000 - \$315,000)		185,000
	To declare a cash dividend		

3.4 STOCK DIVIDENDS

- A stock dividend
 - Is a proportional distribution by a corporation of its own stock to its stockholders
 - Increases the stock account and decreases Retained Earnings
 - Is different from cash dividends because stock dividends do not transfer the corporation's assets to the stockholders
 - Is distributed to stockholders in proportion to the number of shares they already own
- The reasons for stock dividends are
 - To continue dividends but conserve cash
 - To reduce the market price of its stock
- Generally accepted accounting principles distinguish between a large and a small stock dividend
 - Large stock dividend (25% or more of issued stock)
 - Significantly increases the number of shares available in the market and usually decreases the stock price
 - Transfers the par value of the dividend shares from Retained Earnings to Common Stock

Retained Earnings	50,000	
Common stock (market value)		50,000

- Small stock dividend (less than 20-25% of issued stock)
 - It is less likely to significantly affect the price of the company's stock
 - Retained Earnings is decreased for the market value of the dividend shares, Common Stock is credited for the stock's par value, and Paid-in Capital in Excess of Par is credited for the remainder

Retained Earnings	XXX	
Common stock (at par value)		X
Paid in capital (remaining part above par value)		XX

3.5 STOCK SPLIT

- A stock split is an increase in the number of authorized, issued, and outstanding shares of stock, coupled with a proportionate reduction in the stock's par value
- A stock split decreases the market price of stock--with the intention of making the stock more attractive to investors
- Effects of Dividends and Stock Splits on Total Stockholders' Equity

Event	Effect on Total Stockholders' Equity
○ Declaration of cash dividend	Decrease
○ Payment of previously declared cash dividend	No effect
○ Declaration of stock dividend	No effect
○ Distribution of stock dividend	No effect
○ Stock split	No effect

4 STATEMENTS

4.1 QUALITY OF EARNINGS

- Using income from continuing operations in investment analysis
 - Income from continuing operations can be used in estimating the value of Allied Electronics' common stock by determining the present value of Allied's stream of future income
 - The investment capitalization rate is used to estimate the value of an investment in the capital stock of another company

ALLIED ELECTRONICS CORPORATION			
Income Statement			
Year ended December 31, 20X1			
Continuing operations	1	Sales revenue	\$500,000
	2	Cost of goods sold	<u>240,000</u>
	3	Gross margin	260,000
	4	Operating expenses (detailed)	<u>181,000</u>
	5	Operating income	<u>\$79,000</u>
		Other gains (losses):	
	6	Loss on restructuring operations	(10,000)
	7	Gain on sale of machinery	<u>21,000</u>
	8	Income from continuing operations before income tax	90,000
	9	Income tax expense	<u>36,000</u>
10	Income from continuing operations	54,000	
Special items		Discontinued operations:	
	11	Operating income, \$30,000, less income tax of \$12,000	\$18,000
	12	Gain on disposal, \$5,000 less income tax of \$2,000	<u>3,000</u>
	13	Income before extraordinary item and cumulative effect of change in depreciation method	<u>21,000</u>
	14	Extraordinary flood loss \$20,000 less income tax savings of \$8,000	75,000
	15		(12,000)
	16	Cumulative effect of change in depreciation method, \$10,000, less income tax of \$4,000	<u>6,000</u>
	17	Net income	<u>\$ 69,000</u>
Earnings per share		Earnings per share of common stock: (20,000 shares outstanding):	
	18	Income from continuing operations	\$2.70
	19	Income from discontinued operations	<u>1.05</u>
	20	Income before extraordinary item and cumulative effect of change in depreciation method	3.75
	21	Extraordinary loss	(0.60)
	22	Cumulative effect of change in depreciation method	<u>0.30</u>
	23	Net income	<u>\$3.45</u>

4.2 EARNINGS PER SHARE

- Earnings per share (EPS)
 - Is the amount of a company's net income per share of its outstanding common stock
 - Is in the final segment of a corporation's income statement
 - Allows investors to compare earnings for corporations of different sizes and across various industries
- Earnings per share = Net income / Shares of common stock outstanding

- Weighted-average shares of common stock outstanding
 - For many corporations, shares outstanding vary from month to month
 - To make EPS as meaningful as possible, corporations divide by the weighted-average number of common shares outstanding during the period
- Effect of preferred dividends on earnings per share
 - Holders of preferred stock have first claim on dividends
 - Preferred dividends must be subtracted from income subtotals in the computation of EPS
- Corporations with complex capital structures present two sets of EPS figures
 - EPS based on actual outstanding common shares (basic EPS)
 - EPS based on outstanding common shares plus the additional common shares that would arise from conversion of the preferred stock into common (diluted EPS)

4.3 COMPREHENSIVE INCOME

- Comprehensive income
 - Is the company's change in total stockholders' equity from all sources other than from the owners of the business
 - Includes net income plus some specific gains and losses
- In the statement below, "Other comprehensive income" contains two of these specific gains and losses:
 - Unrealized gains or losses on available-for-sale investments
 - Foreign-currency translation adjustment

Revenues		\$10,000
Expenses (including income tax)		6,000
Net income		4,000
Other comprehensive income:		
Unrealized gain on investment	\$ 650	
Less income tax (40%)	260	\$390
Foreign-currency translation adjustment (loss)	\$(900)	
Less income tax (40%)	360	(540)
Other comprehensive income	(150)	
Comprehensive income		\$ 3,850

4.4 ACCOUNTING FOR INCOME TAXES

- Most corporations have a combined federal and state income tax rate of approximately 40%
- To account for income tax, the corporation measures for each period
 - Income tax expense
 - An expense on the income statement
 - Income tax payable
 - A liability on the balance sheet
- In general, income tax expense and income tax payable can be computed as follows:
 - Income tax expense
 - = Income before income tax (from the income statement)
 - * Income tax rate
 - Income tax payable
 - = Taxable income (from the income tax return filed with the IRS)
 - * Income tax rate

- For most companies, income tax expense and income tax payable differs
- The most important difference between accounting income and taxable income occurs when a corporation uses straight-line depreciation for financial statements and the modified accelerated cost recovery system (MACRS) depreciation on the tax return
- Suppose for 20X2 that IHOP Corp. has
 - Pretax accounting income of \$40 million on the income statement
 - Taxable income of \$35 million on the company’s income tax return
- IHOP will record income tax for 20X2 as follows (dollar amounts in millions and an income tax rate of 40%):

20X2		
Dec. 31	Income Tax Expense (\$40 x .40)	16
	Income Tax Payable (\$35 x .40)	14
	Deferred Tax Liability	2
Recorded income tax for the year		

4.5 PRIOR PERIOD ADJUSTMENTS

- Prior period adjustments are corrections to the beginning balance of Retained Earnings for errors of an earlier period
 - DeGraff Corporation recorded income tax expense as \$30,000 rather than the correct amount of \$40,000. This error resulted in understating 20X4 expenses by \$10,000 and overstating net income by \$10,000. The entry to record this prior period adjustment in 20X5 is

20X5		
June 19	Retained Earnings	10,000
	Income Tax Payable	10,000
Prior period adjustment to correct error in recording income tax expense of 20X4		

4.6 STATEMENTS OF STAKEHOLDERS EQUITY

- The statement of stockholders’ equity reports the changes in all categories of equity during the period
 - The next exhibit shows the statement of stockholders’ equity for Allied Electronics for 20X2
 - There is a column for each element of equity, with the far right column reporting total stockholders’ equity

ALLIED ELECTRONICS CORPORATION							
Statement of Stockholders’ Equity							
For the Year Ended December 31, 20X2							
	Common Stock, \$1 Par	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income Unrealized Gain (Loss) on Investments	Foreign- Currency Adjustment	Total Stockholders’ Equity
1 Balance, December 31, 20X1	\$80,000	\$160,000	\$130,000	\$(25,000)	\$6,000	\$(10,000)	\$341,000
2 Issuance of stock	20,000	65,000					85,000
3 Net income			69,000				69,000
4 Cash dividends			(21,000)				(21,000)
5 Stock dividends (8%)	8,000	26,000	(34,000)				-0-
6 Purchase of treasury stock				(9,000)			(9,000)
7 Sale of treasury stock		7,000		4,000			11,000
8 Unrealized gain on investments					1,000		1,000
9 Foreign-currency translation adjustment						2,000	2,000
10 Balance, December 31, 20X2	\$108,000	258,000	\$144,000	\$(30,000)	\$7,000	\$(8,000)	\$479,000

4.7 MINEFIELDS

From Sherman and Joung; Harvard Business Review; July-August 2001

- Minefields
 - Revenue measurement and recognition
 - Provision for uncertain future costs
 - Asset valuation
 - Derivatives
 - Related-party transaction
 - Information used for benchmarking performance

- Dangers
 - High-growth companies entering a low-growth phase
 - Companies that receive extensive coverage in the business and popular press
 - such as Priceline and Amazon.com
 - New businesses where there are ambiguities about how key transactions are and should be measured
 - High-growth companies entering a low-growth phase
 - Companies that receive extensive coverage in the business and popular press (such as Priceline and Amazon.com)
 - New businesses where there are ambiguities about how key transactions are and should be measured
 - Weak control environments in which managers can manipulate reported financial results with relative impunity
 - Companies that are followed by a small number of analysts
 - Companies with complex ownership and financial structures