

## Accounting

Operation accounting: employees salaries & deductions, inventory prices, day to day. Largest collection of information

Financial acct: info intended for mgmt, shareholders, banks, govt, etc... used for financial reporting

Management acct: used for 3 managerial functions

- planning
- implementation
- control

Tax acct: using tax rules which differ from financial reporting rules & mgmt acct principals.

CPA: Chartered Professional Accountant: all subfamilies of acct roll up into CPA

- CA
- CMA: Certified Management Acct
- CFA: Specialized in financial Accounting

XBRL: extensible Business Reporting Language: digital business language designed to standardize financial statement data transmission

Acct is run by principals, not rules. Set by humans, they require

- Relevance
- Objectivity
- Feasibility

GAAP: Source of Acct principals.

FASB: Financial Acct Standard Board → Set GAAPs.

Companies not forced to follow GAAP but strongly recommended to do so

IFRS: International Financial Reporting Standards  
Set by the IASB - international Acct. Standards Board

Sarbanes Oxley: instored in July 2002, requires CEO & CFO of public companies to certify that statements filed w/ SEC are materially accurate, complete & ~~reflect~~ present fairly financial condition & results of issuer

Status Report: Snapshot @ point in time: → Balance Sheet

Flow Report: Activity over a period → Income Statement, CF Statement

## Chapter 4

Account: Device used to calculate net change in an item

Permanent Account: aka real account, records items on balance sheet & balances are carried forward into next period

Temporary accounts: established for each revenues & expenses to avoid cluttering retained earnings. Accounts summed up to create income statement. @ end of period, balances transferred to R.E. so always 0 @ beginning

Ledger: Book w/ all the accounts, sometimes called General Ledger or GL

Subsidiary ledger: Sub-ledger to contain more details & avoid cluttering the ledger. Ex: AR/AP w/ details of collection/payment or Inventory

Chart of Accounts: list of all accounts, established by mgmt.

Debit: left side of an account

Credit: Right side of an account

Book keeping double entry: for each transaction, Dr = Cr.

expenses.

Assets  
+ | -  
Dr | Cr

= Liability + Owner's Equity  
- | + | - | +  
Dr | Cr | Dr | Cr

Revenues  
← unpaid expense

unearned revenue

Revenues are credits  
Expenses are debits

Revenues  
- | +  
Dr | Cr

Expenses  
+ | -  
Dr | Cr

Journal: Records all transactions.

Accounting Process.

1. Analyse transactions
2. Journalize original entries
3. Post journal entries to ledger, organized by Account
4. Identify, journalize & post adjusting entries
5. Journalize & post closing entries/close temp. Accounts.
6. Prepare financial statements.

Adjusting entries: Non systematic changes, ex: Accrued Salaries on Dec 31<sup>st</sup>

Contra Account: Account that reduces another ex: Depreciation or provisions for bad debts

Funky transactions

4.2 2 Sales discount allowance used 34,150

Dr Sales discount & Allowances

Cr Provisions for Sales discount & Allowances

Sales disc & allowances is a deduction from gross sales to arrive @ net sales. The provision is a liability

4.2 3- A loan for 3500 @ 12% is still owed by an employee.

Dr Interest receivable 35

Cr Interest income

Interest income will be listed under "Other income" in the I/S.

4.2 4 Depreciation expense used 13,600

Dr. Depreciation Expense

Cr. Accumulated Dep

Depreciation expense is an income statement item

4.2 5 Customer paid for services he will receive in future.

Dr. Cash

Cr. Deferred Revenues

4.2 6 Estimated increase of 1350 in bad debts.

Dr. Bad debt expense

Cr Allowance for doubtful Accounts

• Contra Account for AR

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Ruling & balancing: Sub total transactions in permanent Accounts. Put a double rule to indicate that all above transactions have been wanted.

Cash	
0	750
5000	250
5000	1000
4000	

Trial Balance: list of account names with balances of each account

Purpose: Shows equality of Dr & Cr (i.e. integrity check)  
 provides a summary for making adjusting entries & prep statements.

Adjusting entries: Unlike original entries, do not come w/ supporting objective documents. They modify balances to better reflect reality. Types:

- Recorded costs related to 2+ periods. (ex: insurance)
  - Unrecorded (Accrued) expenses (ex: wages, bad debt)
  - Recorded revenues related to 2+ periods (ex: rent)
  - Unrecorded revenues (ex: interest earned but not paid)
- continuous transactions  
 ex: fuel inventory

ex1:

Buy a 2y. insurance policy

Prepaid Ins.	Cash
1500	1500
Adjustment	
Prepaid Ins.	Ins. Expense
1500	750

Buy 10k equipment, depreciate 5y, sv=0.

Equipment	Cash
10000	10000
Adjustment	
Allowance for dep.	Depreciation Exp.
2000	2000

ex2) Rent collected 1st month @ 600

Rent Revenue	Unearned Rent Rev
600	600

Make 120\$ of interest but not paid.

Accrued Interest Receivable	Interest Revenue
120	120

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Closing Entries: Temporary Rev. & Expenses are sub divisions of owner's equity (R.E).

Closing Sales Revenues

Sales Revenue		Income Summary	
12 200	12 000	12 200	← from closing sales
	200		
closing entry →	Balance		
	12 200		

Closing Cost of Sales

Cost of Sales		Income Summary	
6000	6000	6000	12 200
	closing entry →		

Closing Income Summary to R.E.: After closing all temp. Accounts (except tax Expenses) to Income Summary, close it to Retained earnings.

Income Summary		Income tax liability	R. E
sub total → 10 240	12 200	382	1 528
calculate tax → 382			
closing entry → 1 528	1 528		

## Chapter 2 - Balance Sheet

- ① Money measurement: in financial Acct, records is made of only info that can be expressed in monetary terms. Money is expressed in terms of its value @t when entered in the books (No track of inflation)
- ② Entity Concept: Organization or activity for which Acct. reports are prepared.  $\rightarrow$  How do accounting events affect the entity.
- ③ Going Concern: Assume entity will continue to operate for an indefinitely long period in the future (i.e. do not tag liquidation value for items in supply chain)
- ④ Cost Concepts:
  - Non monetary assets are recorded @ cost, not @ fair value
  - Monetary assets: initially recorded @ costs then accounted for in fair value.
- ⑤ Dual Aspect:  $\text{Assets} = \text{Liability} + \text{Owner's Equity}$   
Every transaction has dual impact  $\rightarrow$  Balance Sheet
- ⑥ Account Categories: Items are grouped into categories so that individual items resemble each other  $\neq$  items in one cat are different than from another (No fixed category definition)

### Balance Sheet

Canada GAAP: most liquid Asset on top  
US/IFRS: most liquid Asset on bottom

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Current assets: Assets that are expected to be realized in cash or sold or consumed during operating cycle of entity or a year

- Cash
- Marketable Securities: investments that are readily marketable & expected to be converted to cash within a year
- Accounts Receivable: Owed by customers, typically adjusted for doubtful accounts, (AFDA: Allowance for Doubtful Accounts)
- Notes/Other receivable: Owed by others than customers  $\Rightarrow$  written Note to pay w/ interest
- Inventories: Goods that will be sold in regular course of business
- Prepaid expenses: Assets, usually intangible, whose usefulness will expire in the near future. (ex: prepaid Rent or insurance)

Fixed Assets (i.e. Property, plant & equipment): tangible assets that are long lived (and is not depreciated)

Other assets

- Investments
- Intangible assets: goodwill, patents, copyrights, trademarks

Liabilities: obligations to transfer assets or provide services to outside parties arising from events that have already happened or past transactions. Claims against assets in general otherwise specified (mortgage, LTD)



Current liabilities: expected to be satisfied or extinguished during normal operating cycle or a year.

- Accounts payable: claims of suppliers
- Notes payable: Amounts owed to FIs.
- Taxes payable: amount owed to govt. agencies for taxes.
- Accrued expenses: Amounts earned by outside parties but not yet invoiced or paid (ex: interest/wage payable)
- Deferred revenues: Advanced amt received for a service due (ex: subscriptions)
- Current portion of LTD: LTD portion due < 12 months.

Owner's Equity: Amount owners have in the entity (SHE).

- Prepaid in Capital (aka contributed capital): Amount invested directly in company
  - Capital Stock: shows par value & # of outstanding shares
  - Additional paid-in capital: when investors paid more than par value
- Retained earnings: Difference between total earnings since inception & total dividends paid over entire life. If < 0, called deficit.
  - In proprietorship, one line w/ owner's name.
  - In partnership, separated by partners, might have Drawings if payouts by partners.

Current ratio = current assets / current liabilities

Unincorporated Business

- Proprietorship: one owner
- Partnership: use capital account per partner (drawings = withdrawals)

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## Chap 3 - Income Statement

### Basic Concepts.

⑥ Accounting period: Accounting measures activities over intervals of time called accounting period. (typically 1 year)

SEC requires quarterly interim reports.

Revenue: increase in RE associated with operations

Expense: decrease; outflow/consumption of resources to generate revenue

Net income/loss: Revenue - Expense

Share holder's equity = paid in capital + Retained earnings

⑦ Conservatism: (when revenue is recognized)

- Recognize revenues only when they are reasonably certain
- Recognize expense as soon as they are reasonably possible

ex: recognize revenue from sales of goods only when shipped, or services only when performed.

Unearned (percolated) revenues: liability of goods/services already paid but not yet shipped/performed.

Accrued revenues: have been earned but not yet paid  
ex: interest on a loan

⑧ Realization: Amount of revenue that should be recorded.  
ex: Allowance for doubtful accounts  
Sales returns & allowance  
Sales discounts

⑨ Matching Concept: when a given event affects both revenues & expenses, the effect of each is recorded during the SAME accounting period.

### Expense terminology

Cost: monetary measurement of amount of resources used for some purpose

- Expenditure: decrease in asset (usually cash) or increase in a liability
- Expense: Cost applicable to the current period.
- Disbursement: payment of cash

Expenditure take place when an entity acquires goods or services, either made in cash or increased liability

### Types of expenditures

- 1- Expenditure made this year for expense incurred this year
- 2- Expenditure made in previous year for expense incurred this year

Assets that become expenses. ex: ~~ex:~~

• Inventories

• Prepaid expenses (deferred charges)

- 3- Expenditures that are not yet expenses

ex: production wages & salaries, purchase inventories

- 4- Expenses not yet paid

ex: accrued wages, interest

Dividend: not expenses; reduce cash & RE.

Gains/Losses: increases/decreases in RE not associated w/ operations

⑩ - Consistency concept: once accounting method is selected, use it for all subsequent events of same character.

⑪ Materiality concept: "de minimis non curat lex" the court will not consider trivial matters.

Insignificant events may be disregarded but there must be full disclosure of all important information.

## Income Statement

a.k.a. P/L, statement of earnings/operations.

Heading: Entity name, name of statement & period covered

- Revenues/Sales: invoice price of goods shipped/services rendered  
excluded: taxes, freight/postage, trade discounts.
- Sales returns & allowances: value of goods returned & allowances for defective goods.
- Other revenues: rev. not associated w/ sales ex: interest

Expenses:

- Cost of goods sold.
- \* Gross margin/Gross profit = Revenues - COGS.
- Selling, general & administrative expenses charges.

Disclosed Separately

- Research & Development
- Interest Expense

} income before taxes.

Provision for income tax

Net income.

- Gross sales
- Sales returns & Allowances
  - Sales (cash) discounts
- Net sales

- Net sales
- Cost of goods sold
- Gross Margin

- Operating income
- other expenses
  - + other revenues
- Earnings Before taxes
- taxes
- Net income

## Chap 5 Revenues & Monetary Assets

Revenue Recognition → when? How much?

- The entity has substantially performed what is required to earn the revenue
- The amount of income can be reliably measured
- Related assets received can be easily converted to cash

### IFRS - Revenue Recognition

- Risks & rewards of ownership are transferred to buyer
- Seller no longer has material involvement
- Amt of revenue can be reliably measured
- Probable that seller will receive revenue
- Cost of transaction can be reliably measured.

## SEC - Revenue Recognition

- Persuasive evidence of an order
- Delivery occurred &/or service is performed
- Fixed or determinable sales price
- Collectibility of sale is reasonably assured.

Delivery method for recognizing revenues (most common)

- Product is @ customer's place of business
- No uncertainty about customer's acceptance of product
- Seller has substantially completed terms of P.O.
- For licensing; licensing terms have begun

Consignment: consignor ships goods to consignee who attempts to sell them

dr. Inv. in consignment	1000	} Ship to consignee
cr. Merchandise inventory	1000	
dr. Cost of goods sold	1000	} record c.o.g.s.
cr. Inv. in Consignment	1000	
dr. A.R.	1400	} record Revenue
cr. Sales Revenue	1400	

Sale

Franchise Revenue: Franchisee pays lump sum to franchisor who agrees to provide advice, services, etc... Franchisor needs to complete these services (setup, training, etc...) before materializing revenues; usually happens after start of franchisee's operations.

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Percentage of completion: long contracts, typically

- Fixed price contract: pre-determined amounts are paid during milestones
- Cost + Reimbursement contract: customer payment @ milestone or costs + reasonable profit.

Completed Contract method: used if % completion can't be estimated; costs incurred are held as an asset (i.e. contract work in progress) until revenue is recognized.

Production Method.

- Permitted but not required by GAAP.
- Typically used in mining & agriculture
- Recognize revenue @ harvest or when metals are extracted, rather than when sold.

Installment method.

- Revenue recognized when installment payment is received
- Proportion of costs is realized (proportion) @ same period.

Real Estate Sale Recognition conditions.

- 1- Period of contract cancellation has expired
- 2- Buyer has made cumulative payment of at least 10%
- 3- Seller has completed or is clearly capable of completing required improvements (roads, utility connections, etc...).

## Amount of Revenue Recognized.

NRV - Net Realizable Value: Amount reasonably estimated to be collected.

Adjustment for bad debts.

- Direct write off method: write off when specific trouble account is identified.  $\Rightarrow$  Does not meet matching principle.
- Allowance method: total amount of uncollectible AR is estimated as a % sales based on historical default rates.

### Allowance Method

Dr. A.R.	10 000		} Make sale on credit
Cr Sales Revenue		10 000	
Dr. Bad debt expense	300		} Record Bad debt exp; keep AFDA provision
Cr. AFDA		300	
Dr. AFDA	75		} <u>write off debt from AR</u> Dr. provision
Cr A.R.		75	
Dr Cash.	75		} write off ends up paying
Cr AFDA		75	

Sales discount: ex 2/10 net 30.

Can be recorded in 3 ways

- ① Record as reduction of gross sales
- ② Record as expense in that period.
- ③ Record initial sale as net, discount not taken as additional revenue.

Credit Card Sales.

- Bank plan: Visa/MC
  - Reimburse immediately (No A.R.)
  - c.c. fee is a sales discount/expense
- Credit plan (Amex, Discover).
  - Creates AR.
  - No bad debt; assume c.c. will reimburse (regardless of customer behavior.)

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## Sales returns & Allowances.

- Estimate % revenues for returns; similar to bad debts
- Sales return allowance  $\Leftrightarrow$  Bad debt expense
- Provision for Return & Allowance  $\odot$  AFDA.

Dr. Cash	10000		} make the sale
Cr. Sales revenue		10000	
Dr. Sales Return Allowance	500		} Provision %; record expense $\odot$ Sale period
Cr. Provision for Return/Allow.		500	
Dr. Provision for Return/Allow.	100		} Reimburse for return; disburse cash.
Cr. Cash		100	

## Adjust revenue Vs Expense

- Realization concept suggest to adjust revenue
- Some N.I., but  $\Leftarrow$  in revenues & Gross margins
- when method chosen, need to be consistent

## Warranty Costs.

- Similar to bad debts & Sales Returns & Allowances

## Interest Revenues.

### Interest Paid @ maturity:

Dr. Loans receivable	10000		} loan is granted.
Cr. Cash		10000	
Dr. Interest receivable	300		} Interest is earned.
Cr. Interest Revenue		300	
Dr. Cash	300		} interest is paid.
Cr. Interest Receivable		300	

### Discounted loan.

Dr. Loan Receivable	10 000		} loan is made Unearned revenue recorded
Cr. Cash		9100	
Cr. Unearned interest revenue		900	
Dr. Unearned int. Revenue	300		} Record revenue unearned as asset.
Cr. Interest Revenue		300	
Dr. Cash	10 000		} loan is repayed
Cr. Loan Receivable		10 000	
Dr. Unearned int. Rev.	600		} interest revenue materialized.
Cr. Interest Revenue		600	

### Monetary Assets.

- Money or claims to receive fixed sums of money
- Recorded on B.S. @ value
  - Cash: Recorded @ face value
    - Funds available for disbursement
    - May include highly liquid assets
  - Receivables: Recorded @ NRV.
    - Called trade receivables for non F.I.s.
    - Also record employee loans (recorded separately).
  - Marketable Securities: Recorded @ market value
    - must be temporary investments. (Commercial paper, T-bills, bonds).

### Non monetary assets.

- Items used for production

### Marketable securities

- ① Held to maturity securities: Reported @ Cost. (gain/loss @ maturity)
- ② Trading Security: Reported @ market value. (gain/loss per period)
- ③ Available for Sale Securities: Reported @ market value

Analysis of monetary assets.

Current Ratio:  $\frac{\text{Current Assets}}{\text{Current Liabilities}}$  measures liquidity

Acid test Ratio:  $\frac{\text{monetary C.A.}}{\text{Current Liab.}}$  excludes inventories & prepaid exp.

Day's Cash:  $\frac{\text{Cash}}{\text{Cash exp} \div 365}$  cash exp excludes depreciation

Day's Receivables:  $\frac{\text{AR}}{\text{Sales} \div 365}$  a.k.a. collection period; should not exceed 13% of pmt terms.

## Ch 6 - Cost of Sales & inventory.

Inventory: Asset held for sale in ordinary course of business or goods that will be used in production of goods or services to be sold

Supplies: tangible items that will be used in the course of normal operation (consumed, not sold therefore  $\neq$  inv.).

### Types of Companies

- Merchandizing: Sells goods in same form as acquired; has merchandizing inventory
- Manufacturing Company: Converts raw materials into finished goods  
Has: Materials, work in progress & finished goods inv.
- Service company: Provides intangible services.  
Has: jobs in progress or unbilled costs as inv. (+ supplies)

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## Merchandising Companies

Net purchase cost: cost of merchandise + expenditure to make it available (freight, handling, etc.)  $\Rightarrow$  Recorded @ received, not when ordered

$$\begin{array}{r} \text{Beginning Inventory} \\ + \text{Purchases} \quad \leftarrow (\text{Gross purchases} - \text{Returns \& allowance} + \text{Freight-in}) \\ \hline \text{Goods available for sale} \\ - \text{End inventory} \\ \hline \text{Cost of Goods Sold.} \end{array}$$

Measurement issue - 2 unknowns

- How much was COGS: use perpetual inventory method.
- What is end inventory: use periodic inventory method

Periodic inventory:

- 1) take periodic inventory count
  - 2) Compute  $\text{beg. inv} + \text{purchases} = \text{Gds avail for sale}$
  - 3) Compute  $\text{COGS} = \text{End inv.} - \text{GAFS}$ .
- } less record keeping

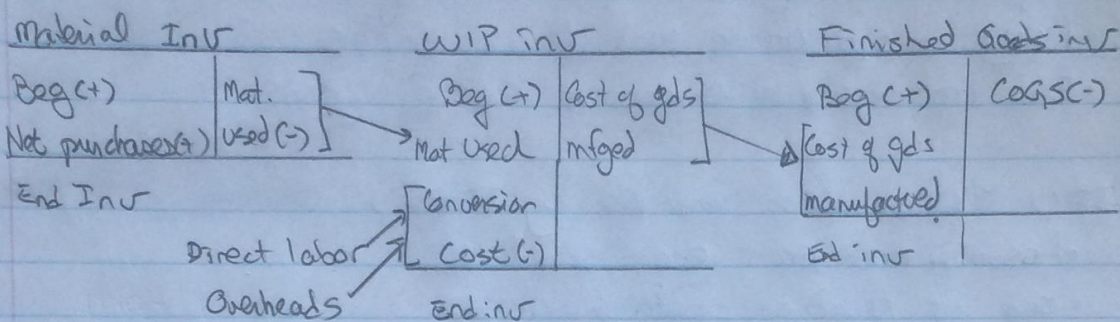
Perpetual inventory:

- 1) When purchase, keep perpetual record of item
  - 2) @ Sale, Cr. Merchandise inv & Dr. COGS.
  - 3) Inv. balance + COGS always available
- } Useful for re-stocking  
identifies shrinkage  
G/S avail on the fly

Retail method

- 1) Record purchases @ Cost & Retail separate
- 2) Calculate average Gross margin of GAFS.
- 3)  $\text{Sales} - \text{avg. Gross margins} = \text{COGS}$ .

# Manufacturing Companies



# Service Companies

Personal Services (ex: Hotels, beauty, salon, dentist)

- No inv; just supplies

Building & trade repair (ex: Garage, electric, HVAC...)

- Supplies & also parts inv.

Professional Services (ex: law, accountant, Architecture)

- Have jobs in progress (similar to WIP in mfg).

# Inventory Costing methods

[① Specific Identification ② Average cost ③ FIFO ④ LIFO]

## ① Specific Identification

- Track costs per each item
- typically used for big ticket items (cars, jewelry)
- can lead to cost manipulation

## ② Average cost

- Compute average cost of all items
  - Avg cost =  $\frac{\text{Beg inv} + \text{purchases}}{\# \text{ units avail. for sale}}$
  - Cogs =  $\# \text{ of units sold} \times \text{Average cost per unit}$  (between LIFO & FIFO)
- Periodic inv: Calculate avg every period.  
 Perpetual inv: Calculate avg every purchase

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### ③ FIFO Method

- Expense cost of oldest purchase first
- Likely to approximate real flow of goods.
- End inv. approximates current cost of goods.

### ④ LIFO Method (not permitted by IFRS).

- Assumes most recent goods sold first
- End inv. based on oldest purchases
- Growing & Shrinking inv. creates layers that have huge impact in COGS.
- LIFO Reserve: Diff. btwn LIFO & [FIFO or average]

FIFO

more realistic flow of goods  
More accurate BS. Valuation

Vs.

LIFO.

{ w/ cost-plus pricing, provides more appropriate price  
Inflation = cost ↑, taxable income ↓, tax ↓  
Lower earnings for shareholders

### Lower Cost or Market (LCM)

To reflect conservatism in deterioration, obsolescence, changing tastes

Ceiling:  $NRV = \text{Sale price} - \text{Cost of selling}$  (inv  $\leq$  # received)

Floor:  $NRV - \text{Normal profit margin}$  (inv not artificially low).

Replacement Cost: using today figures

→ Middle = Fair market Value if  $(FMV < inv, FMV, inv)$

ex. Item sells for 300 w/ 10% sales overheads, 245 cost of replacement & normal profit = 50.

$$NRV = 300 - 10 = 290.$$

$$NRV - \text{Profit} = 290 - 50 = 240.$$

$$\text{Repl: } 245$$

← FVM.

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if was @ 400 in inv; write off  $400 - 245 = 155\$$  per item

## Inventory Ratios.

Inv. Turnover =  $\frac{\text{COGS}}{\text{Inv.}}$  How many times is inv. flipped during period.

Day's Inventory =  $\frac{\text{Inv.}}{\text{COGS} \div 365}$  ← How much inv. used in a day How many days of Inventory is on hand.

Gross Margins =  $\frac{\text{Sales} - \text{COGS}}{\text{Sales}}$  Gross margins @ % Sales.

## Ch 7 - Long lived non Monetary Assets & Amortization

Capitalized Assets: Benefits expected in future periods  
Expensed: benefits expected in current period

Amortization: Process of matching capitalized costs w/ revenues obtained from their use

Tangible asset: aka fixed asset; w/ physical substance

Land Not amortized

Plant & Equipment Depreciated

Natural Resources Depleted

Intangible assets: No physical substance

Goodwill Not amortized

Intangible assets - limited life Amortized

Intangible asset - indefinite life Not amortized

Leasehold improvements Amortized

Deferred charges Amortized

R & D Expensed

Distinction between Asset & Expense

- Betterments: Makes asset better than it was when purchased or extends service life  $\Rightarrow$  Capex
- Low cost items: from materiality concept: opex
- Replacement of entire asset: write off old one & Cap. New one
- Replacement of component/part/opex

What to include in costs for capitalization

- All expenditures req. to make asset ready for its intended use
- For self constructed assets: Also include interest
- Non Cash: FMV of payment or of purchased asset. IFRS allows revaluation increase/decrease = gain or loss in re-evaluation period
- Basket purchase: Split basket costs into categories



Depreciation: Systematic allocation of the original cost of an asset to the period in which the asset provides benefits to the entity

Service life: typically < physical life; due to deterioration/obsolescence

Book value: purchase price - Dep.

Calculating dep: GAAP - Systematic & Rational; IFRS: reflect pattern of usage

Straight line:  $\frac{\text{Cost} - \text{R.V.}}{\text{life}} = \text{Exp for all yrs}$  use rate applied on } ex 5 yrs 20%  
purchased Price } 4 yrs 25%

Double declining balance: Apply rate on book value; not on purchased cost. Stated as a % of the straight line rate.

ex: 10 yrs S.L.  $\Rightarrow$  10% if 200% decl bal rate; use 200% of 10% = 20%

ex: 10 yrs S.L. Rate: 10% if 150% decl bal; use 150% of 10% = 15%

### Accounting for depreciation

Changes in rate: amortize remaining B.V. w/ new rate

Fully depreciated asset: stay in B.S. until disposed of.

### Disposal

Credit cash, remove asset, remove dep, record gain/loss in current period.

Impaired asset: if pv. of remaining benefits < B.V.

if expected to keep: write down to fair value

if expected to sell: write down to fair value - disposal cost

### Trade Ins/Exchanges

Similar assets: New asset's B.V. = previous asset's B.V. plus additional amount paid (No gain/loss recorded)

Different Assets: Record new asset @ fair value, which is Ft. of exchange + Cash. Record Gain/Loss

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Ex:

Asset 20 000 (Car).  
Accum Dep 15 000  
BV 5 000 (fair market value = 7 000).

Trade 7 000 Car + 18 000 Cash for New w/ list price 30 000 <sup>(cost 25 or 23)</sup>

<u>Car</u>		<u>Equipment</u>	
(cost recorded) Cr Assets	23 000 (3+18)	Cr Asset	25 000 (7+18)
Cr Dep.	15 000	Cr. Dep	15 000
Dr Cash	18 000	Dr Cash	18 000
Dr Asset	20 000	Dr Asset	20 000
		Dr. Gain	2 000

Group (Pool) depreciation - Disposal

Cr Cash	Gain (or Dr loss)	} No gain or loss recorded
Dr Asset	original cost	
Dr. Dep.	Sales price	

### Natural Resources

- Full cost method: capitalize successful & unsuccessful exploration
- Successful efforts method: if didn't find, exp, if find = capex

Depletion: Amortization of cost of Nat. resources typically use units of production method.

### Intangible Assets

limited life: amortize over life

indefinite life: Periodic impairment test (or goodwill impairment test yearly)

leasehold improvement: Amortized over lease but if likely to renew - to next lease also

Average age of depreciable assets:  $\frac{\text{Accum. dep}}{\text{annual dep exp.}}$

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## Ch 8 - Sources of Capital: Debt.

Liability: obligation to a 3<sup>rd</sup> party arising from an event that has already occurred.

Executory contract:

- Not a liability
- Neither parties have yet performed.

Contingency: uncertainty as to possible gain/loss that will ultimately be resolved by some future event

- Gain Contingency: (conservatism) usually not reported
- Loss

Record if probable Asset impairment or liability incurred

Disclose if reasonably possible &/or can't be reasonably estimated

## Bonds.

- Indenture: Bond agreement
- Covenant: maintain certain ratios.
- Debenture: Bond not secured by any specific asset
- Sinking fund bond: Covenant that requires setting \$ aside to be used to redeem @ maturity
- Serial Bond: redeemed in installments.
- Callable bond: Option for issuer to redeem before maturity
- Convertible bond: bond holder can exchange for

## Bonds Accounting

Issuing costs: deferred charges for life of bond

Discount: Contra-liability amortized

Premium: Adjust liability amortized.

1- Bond Issue.

Market: 851  
 Issue Cost: 21  
 Discount: 149  
 F.V.: 1000

Dr. Cash 83 000  
 Dr. Deferred Charges 2100  
 Dr. Bond Discount 14 900  
 Cr. Bond payable 100 000

or if @ premium

Market: 1091  
 Issue Cost: 21  
 Premium 91  
 F.V. 1000

Dr. Cash 107 000  
 Dr. Deferred Charges 2100  
 Cr. Premium 9100  
 Cr. Bond Payable 100 000

2- Interest

Bond discount/premium amortized

ⓐ Calculate YTM (this case is 12%).

ⓑ For every period, Interest = B.V. x YTM.

ⓒ Split in F.V. for interest & rest for discount Amortization

ⓓ Issuing Costs Amortized w/ straight line

Ex. B.V. = 85 100 x 12% = 10 212. | 212 = Discount Amortization  
 | 10 000 = Coupon

Adjusting entry Dec 31<sup>st</sup> if issued Oct 1<sup>st</sup>

Cr. Interest Expense [85 100 x 0.12] ÷ 4 = 2553.

Dr. Discount 53.

Dr. Accrued Interest payable 2500

When paying

Dr Bond Interest Exp = [85 100 x 0.12] ÷ 3 = 7659.

Cr Discount

[7659 - 7500 = 159]

Dr. Accrued Interest payable 2500

Cr Cash

10 000.

For year: total Interest Exp: 10 212.

Cr. Cash 10 000

Cr. Discount 212

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25,53  
 26,25

## Retirement of Bonds

- Before maturity (callable or market purchase):  
 $\text{Gain/Loss} = \text{Reacquisition price} - \text{Net Carrying Amnt}$
- @ maturity: @ balance in Deferred Charges & Bond discount/premium  
 Debit bond payable / credit Cash

## Capital lease: If any of

- 1- Asset becomes property of lessee @ maturity
- 2- lease has a purchase option
- 3- lease length  $\geq 75\%$  life of asset
- 4- P.V. of min lease pmt  $\geq 90\%$  of FMV of Asset (use incremental borrowing cost)

otherwise  $\rightarrow$  Off balance sheet lease

Capital leases are treated just like regular asset

## Ratios.

- D/E
- Debt/Capitalization ratio =  $\text{Debt} / [\text{Debt} + \text{SHE}]$ .
- Times interest earned  $\text{EBIT} / \text{Interest Expense}$ .

## Bond EX.

F.V. = \$250,000

Premium: 10,000

MT: 10,000 semi A

$n=10$ .

Use straight

line Amortization

April 1<sup>st</sup> 2008

issue	Dr. Cash	260,000
	Cr. Premium	10,000
	Cr. Bond payable	250,000

Dec 31<sup>st</sup>

End of period	Cr. Interest Exp	5,000
	Dr. Accrued	5,000
	Cr. Premium	250
	Dr. Interest Exp	250

Oct 1<sup>st</sup> 2008

Capex	Dr. Interest Exp	10,000
	Dr. Cash	10,000
	Cr. Premium	500
	Dr. Interest Exp	500

April 1<sup>st</sup> 2009

Capex	Cr. Int. Exp	5,000
	Dr. Cash	5,000
	Cr. Premium	250
	Dr. Int. Exp	250

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\* Issue @ 98 means 98% FV

# Chapter 9: Equity

## Forms of business

- Sole proprietor } 80% of businesses; 10% of revenue
- Partnership } 10% of businesses; 10% of revenue
- Corporation } 20% of business; 90% of revenues

Limited partnership: General partner has full liability, other partners have limited liab.

## Corporation disadvantages

- Incorporation cost
- Activities limited to granted in charter
- Need permission of each state where operated
- Double taxation

## Preferred Stock: Dividend is not tax deductible

- Cumulative: Current & past dividends must be paid b4 common dis. paid
- Convertible: into common
- Redeemable: may be redeemable by holder for pre-defined \$

## Treasury Stock: Require own stock (for acquisition, bonus, warrants, takeover protection)

- Not an asset

- No voting

## Accounting for treasury stock:

① Debit Treasury Stock (contra asset account) @ acquisition

② Hold @ purchase value.

③ Sell @ gain: record in T. Stock paid in capital

Sell @ lost: Debit T stock paid in capital or R.E.

Gain/Lost: Not shown on I/S. & not recognized for tax purposes

if retired: P/L directly in R/E; net on IS.

## Cash Dividends

- Declaration date: creates Dividend payable liability
- Date of record: Determines who is eligible
- Pmt date: Pay cash, remove liability

Spin off: Pay dividends w/ shares of other companies already owned  
Stock Dividend: pay w/ stock instead of cash

Warrants: like a call option except

- ① Issued by the company itself
- ② New shares are issued when warrant is exercised, shares come from the company (unlike options  $\Rightarrow$  shares are already outstanding & on the market)

## Options

- Record @ F.M.V. using option pricing model & change to salary expense throughout vesting period
- Vesting: option can be exercised even after employee leaves

Employee Stock ownership plan (ESOP): contributions are tax deductible

Earnings per Share (EPS): Reported

$$\text{EPS} = \frac{\text{NI} - \text{preferred DIV}}{\# \text{Common}} \quad \text{where avg. is not fix} \quad \text{ex: } 600 \text{ preferred @ } 10\$ \text{ means } 6000\$ \text{ in pref. div.}$$

Diluted EPS: # includes convertible securities, options & warrants as exercised

## Non Profits

### Equity

- Endowment = principal intact, earnings from principal
  - Contributed plant = building, art, material contributions
- Operating contributions are revenues, not contributed in capital  
R.E. is called operating equity

## EPS

- Preferred: 1000 preferred @ 6\$ means 6000\$ of preferred div. must be paid. Use  $NI - \#pref \times div\ pref.$
- Not fix # of common: Use weight average over time

## Diluted EPS - if converted method.

- Convertible Preferred: don't subtract preferred dividend to NI  
\* Add # of New common

## Diluted EPS - treasury stock method.

Assume options & warrants are exercised & cash received is used to purchase own stock @ average price.

\$20 per share; 100,000 options @ \$10.

if exercised, company issues 100,000 common & receives 1,000,000\$

\$1,000,000 used to buy 50,000 common shares on the market @ \$20 each

Effect  $\Rightarrow$  +50,000 outstanding common shares

## Ch 10 Other items that affect NI & OE.

### Extraordinary item

- Unusual: highly abnormal & unrelated to ordinary activities.
- Infrequent: Not expected to occur in near future.

FASB: Report on IS after income from continuing operations

IASB: No reporting req.

### Examples of not extraordinary items

- Write down/off of AR, inv or intangible asset
- Gain/loss from Forex
- Gain/loss from disposal of segment of business / fixed assets
- loss due to a strike



Discontinued Operations: getting rid of a whole B.U.  
 • If loss is expected: report when decision is made  
 • If gain expected: report when gain materializes

### Account for

- Net income or (usually) loss attributable to B.U. until sold.
- All associated disposal costs including amounts received & write down of assets

or

### Discontinued operations (Note A)

Loss from operations of Division X (less applicable tax)  
 Loss on disposal of Div. X (less applicable tax)

Changes in Accounting principles: Consistency concept requires to stay w/ same. If sound reason to change, need to retrospect change

### Personnel Costs

#### 1) Wages earned

Dr Wage Cost	600	
Cr Wages payable		600
Dr. Employment tax	99.90	
Cr EI Employer		45.90
Cr CPP Employer		54.00

#### 2) Government is paid

Cr EI payable	91.80
Cr CPP payable	54.00
Cr Tax withheld payable	63.00
Dr Cash	208.80

#### 2) Employee is paid

Dr. Wages Payable	600	
Cr Cash		491.10
Cr EI employee		45.90
Cr Tax withheld		63.00

## Components of pension costs

- ① Service cost: (+) p.v. of future benefits employee earned
- ② Interest cost: (+) amt by which p.v. of plan's beginning of year obligations are expected to increase (payout to retirees)
- ③ Return on plan assets (-)
- ④ Prior service costs (+) whenever plans are "sweetened"; \$ by which plan assets need to increase to cover new liabilities

## Disclosure of pension

- Period's net cost + details on 4 elements
- Assumptions for calculations
- Unfunded plan position for each defined benefit plan

## Permanent diff. btw. Book & tax

- Some expenses in GAAP are not tax deductible (ex. fines)
- Some revenues are tax deductible (ex. rev. from municipal bonds)

## Temporary diff. btw. book & tax

- Diff. that will reverse in a later period (ex. revenues/exp. that can be reported)
  - Deferred tax liability: caused by temporary  $\Delta$  that creates taxable income  $<$  book income (ie. less expense or more revenues on books) ex: Accelerated depreciation
  - Deferred tax asset: taxable income  $>$  book income (ie. more expense/less revenues on books) ex: warranty expense recognized when revenue is earned, subscriptions recognized when received for tax but when earned for book, tax loss carry forward
- Deferrals recorded @ current tax rate & adjusted for rate change if required.

## Forex

- At balance sheet date, recorded foreign balances are adjusted to current (spot) rate
- Gain/loss included in NI in period incurred

Functional currency: Currency of primary economic environment in which company operates.

If not USD: Use net investment <sup>(current rate)</sup> method: foreign BU considered as an investment

- Assets & liabilities converted @ current rate
- Revenues/expenses converted @ average rate of period.

If USD: Remeasurement (temporal method): foreign BU treated as extension of operations.

• Same as current rate except:

- for long lived assets & inventory + associated expenses translated when incurred. (ex: dep, COGS)
- Gain/loss from remeasurement included in income

## Derivatives

- Recognized as asset/liab. & measured @ F.M.V.
- Gain/loss included in income except if categorized as hedge in which case shown under non-owner changes in owner equity

## Pro forma earnings

- Not covered by GAAP other than they must not be misleading
- Shown @ discussion of mgmt
- Excludes some items already included in NI (ex: merger related charges, non-recurring items, goodwill impairment writeoff.)

# Cash flow

## Sources

- Operations
- Borrowing
- Stock issues
- Sale of property/plant/eq
- Sale of other non current assets

## Uses

- Cash Dividends
- Repayment of debt
- Repurchase stock
- Purchase plant/eq
- Purchase other noncurrent assets

## Definition of cash

- Cash or equivalents
  - Short term investments (mature < 90 days)
  - Highly liquid
  - Convertible to known amount of cash
  - Subject to ↓ risk of change in value

Short term Assets [Operation]      Short term Liab } Δ Working Capital

Long term Assets  
[INVESTMENT]

Long term Liab  
S.I.E  
[FINANCING]  
Δ R.E. ⇒ Change in Cash

## Investing Activities

- Sources/Use
- Long lived Assets (buy/sell)
  - Investments (Not cash eq).
  - Make/collect loans.

Operating CF = Δ F.A. - Depreciation  
to only see Δ Cash.

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## Financing Activities - (LTL + SHE)

### Sources/uses

- Borrow Cash/Repay debt
- Issue Equity/Securities
- Dividends paid.

Investment/Financial activities that do not involve cash  
ex: Convert bond to stock or purchase building w/ notes payable  
⇒ narrative statement of disclosure (Not reported in C.F.S)

### Operations

- P/L from NI + Depreciation
- $\Delta$  Working capital (AR/AP/Inventory/Accrued/prepays)
- Dividend + Interest received.

### Direct method

- Collections from customers.  
Sales - (End AR - beg AR)
- Payments to suppliers.  
COGS + (End Inv - Beg Inv) - (End AP - Beg AP)
- Interest paid.  
Interest Expense - (End interest payable - beg. int. pay)

### Indirect method

- Net Income adjusted for non-cash items included
  - Depreciation
  - $\Delta$  A.R.
  - $\Delta$  A.P., inventory, prepaid expenses
  - $\Delta$  Payables (wages, taxes, interest)
  - $\Delta$  Deferred taxes
  - Gain/loss on asset disposal (Already counted in Investment CF so remove from op. CF)

## Cash flow Ratios

- Cash realization (Quality of earnings)

$$\frac{\text{CF. eps}}{\text{N.I.}}$$

- T.I.E. / Fix changes coverage

$$\frac{\text{CF. eps}}{\text{Interest payable [or] Fix changes}}$$

- Free Cash Flow

$$\text{CF eps} - (\text{Fix Asset replacement} + \text{Debt repayment} + \text{Dividend})$$

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## Ch 13 - Financial Statement Analysis

- ① P/E: price earning

$$\frac{\text{Market price per share}}{\text{N.I. per share}}$$

- ② Return on Assets (ROA)

Adj for pre-tax interest to

evaluate mgrs who don't control financing

$$\frac{\text{N.I.} + \text{Interest (1-tax)}}{\text{LTL} + \text{SHE}}$$

- ③ Gross Margins

$$\frac{\text{Gross Margins}}{\text{Net Sales}}$$

- ④ Profit Margins

$$\frac{\text{Net income}}{\text{Net Sales Revenue}}$$

- ⑤ Earnings per share (EPS)

$$\frac{\text{Net income}}{\text{\# shares outstanding}}$$

14. Day's receivable (Collection period)

$$\frac{\text{AR}}{\text{Sales on Credit} / 365}$$

15. Day's Inventory

$$\frac{\text{Inventory}}{\text{Cost of Sales} / 365}$$

16. Inventory turnover

$$\frac{\text{Cost of Sales}}{\text{Inventory}}$$

17. Working Capital turnover

$$\text{w.c.} = [\text{Current Assets} - \text{Curr. Liab.}]$$

$$\frac{\text{Sales Revenue}}{\text{Working Capital}}$$

Cash conversion Cycle

$\text{Days Receivable} + \text{Day Inventory} - \text{Days payable}$   
→ length to complete operating cycle (during which short term borrowing might be required)

18. Current Ratio

$$\frac{\text{Current Assets}}{\text{Current Liab.}}$$

19. Acid test (Quick) Ratio

Remove inv + prepaid

$$\frac{\text{Monetary current Assets}}{\text{C.L.}}$$

Liquidity: Ability to meet current obligations (Current/Acid Ratios)  
Solvency: Ability to meet interest costs & other long term obligations (ex DE, TIE, CF/debt)

# Ch 12 - Acquisitions & Consolidated Statements

## ① Fair Value Method

- If investor owns less than 20% of common stock of investee.
- Stock treated as "available for sale" securities.
- Stock reported on B/S @ FMV.
- Price fluctuations excluded from earnings & entered directly on STE under "Other comprehensive income".
- Dividends received treated as revenues.

## ② Cost Method.

- If own < 20% AND FMV not readily determinable
- Record @ cost

## ③ Equity method

- if ownership > 20% (Assume investor can influence actions of investee).

- Initially recorded as investment @ cost

Investment	250 000
Cash	250 000

- Earnings: increase investment based on % of earnings of investee as revenues.  
ex: investee earns 100k; investor owns 25%

Investment	25 000
Investment revenues	25 000

- Dividends: Reduce investment by dividend received, but no effect on I/S.

ex:	Cash	10 000	} Net @; converts investments to cash.
	Investment	10 000	

## ④ Consolidated Basis.

- when ownership > 50%
- Accounting is same as equity method w/ more rules.



## Business combinations

### ① Pooling method.

- Add both balance sheet; remove any interco AR/AP, etc...
- Issue: Actual acquisition price is not reflected in presentation
- No longer Acceptable practice.

### ② Purchase Method.

• Method:

I - tangible Assets are separated from intangible (patents/licenses, etc...) & reevaluated @ FMV.

II - Intangible Assets

• limited life: Amortized over life

• Unlimited life: Not amortized; subject to impairment test

III - Liabilities are adjusted to FMV.

IV - If purchase price > adjusted B/S acquired; record goodwill otherwise <sup>Acquired</sup> tangible Assets are written down on a pro-rata basis

## Consolidated statements

- Individual statements adjusted for interco & combined
- when >50% of subsidiary is owned by parent

### ① Working capital

if parent owns subsidiary: Dr. AP. Subsidiary  
Cr AR Parent

AR	AP
Dr   Cr	Dr   Cr
+   -	-   +

### ② Investments

Use investment in subsidiary to cancel out subsidiary C.S + R.E.

ex: if parent inv. in subsidiary = 55k & Subsidiary C.S = 40k, then RE @ acquisition was 15k

Dr. Subsidiary Capital Stock 40 000

Dr. Subsidiary R.E. 15 000

Cr. Parent investment in Sub. 55 000

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