BUAD 203 - Principles of Accounting

Chapter 1 - Financial Statements and Bussinen Decisions

two groups of people in business
- Stockholders (owners), expected to receive { growth (involves risk) / dividends (cash paid per share) }
- Creditors: individual loan $ to companies. return = Interest

The Accounting System

Financial Accounting	Managerial Accounting
(financial statements)	(handle costs of things. efficiency, entire career path,)
external	Internal (involve company strategy) keep information to yourself
Creditors, investors	

3 business Activities (FIO)

1. Financing
   get $ to start the business
   → capitals gather $
   i.e. selling ownership, borrow $, invest $
2. Investing
   purchase stuff/equipment for business
3. Operating
   $-making

4. basic Financial Statements

1. Balance Sheet (account balance & values = [1] assets, [2] debts/liabilities, [3] equity)
   asset − debt = equity (value of the business)
2. Income Statements ([4] revenues + [5] expenses) → equity
   net income = rev. − expenses
   ended up in balance sheet
3. Statement of Stockholders' equity
   (more detailed from equity from balance sheet)
4. Statement of Cash Flows

< Accrual accounting: revenues' recognized when earned (i.e. do tax report for you, not pay yet but own you) (delivery a service). expenses when incurred (receive a bill - not pay but incurred)
cash accounting: points in meal plan. revenue, expenses

1. Balance Sheet (a point, date)

Equity = Assets − Liabilities

Assets
- cash
- Short-term Invest. (less than 1yr) and tend to earn less) (invest in stock, bond, etc)
- accounts receivable (# ppl owe you) i.e. for college, I own # to the college
  - A completed B's taxes, B hasn't pay, for A acct. receivable
- note receivable = contract
- Inventory (stuff to sell) i.e. cars intend to sell to sb else
- Supplies (things need, low # item to run the business) i.e. pens, paper
- prepaid expense = paying for sth in advance, but a period of time you can get the # back, i.e. tuitions, subscription to publications
- long-term investments (longer than 1yr) Intent to invest.
- equipment: sth inside the building (net) - depreciation is taken into account
- building, Land (at original price paid)
- Intangibles = Intellegual properties. copyrights, patterns, software

Liabilities
- Accounts payable: # you owe to run your business (other ppl's $). i.e. Sell cars, clothes (others #) 30 days to pay to manufact., sell them in 30 days.
- Accrued Expenses = accumulating. i.e. Interests (time, interest %, amt borrow)
  - a function of time, time passes, it accumulates
- Notes payable = contract to pay #
- taxes payable
- Unearned revenue = # came in the door but haven't earned
  - i.e. college earned # after A/D period
  - i.e. cash came/deposited into the bank
- bonds payable: legal instrument, contract, govt approval
- income Taxes Payable: unpaid taxes

Equity
- common stock:
- retained earnings: # companies earned thru operations + kept.

The Accounting Equation

$$A = L + SE$$

Assets = Liabilities + Stockholder's equity

is a function of

purchase w/ cash or w/ # borrowed | borrow # | have # earned

2. Income Statement (a period of time)

Revenues

Sales revenue — i.e. buy coffee
Fee revenue — i.e. library fee/fine revenue
Interest revenue
rent revenue

Expenses

Cost of Goods Sold — Sell sth from inventory
what I pay for the goods I sell to you
(inventory → cost of goods sold)
Wages expense
rent expense
Interest expense
Advertising, Insurance, repair, income tax expense
Depreciation expense = cost allocation
i.e. cost of truck, allocate it to years used
match revenues w/ associated expense
Income Taxes expense = paid taxes

Net income/loss (the bottom line)

3. Statement of Stockholders' Equity (a period)

common stock : ownership in the company, can be owned by everyone willing to pay
Stock = share

retained earnings : net income
beginning Retained earnings + net income − dividends
= Ending retained earnings
dividends are NOT expenses! = return of capital/investment

4. Statement of cash flows (a period)

accrual method : (1) revenues recognized when earned (not paid in cash)
accounting
(2) expenses are reported when incurred
↓
cash flow (OIF)
cash flow from Operating Activities, investing, Financing
+/- CFO
+/- CFI or in ( ) for outflow
+/- CFF

Ensuring the Accuracy

1. Control: segregation of duties (fraud, mistakes)
2. Auditors
3. Board of directors

3 types of bussiness

1. Sole proprietorship: one owner
2. Partership = 2 or more
3. Corporation: thru shares of stock
   - limited liability: loss the value of stock
   - continuous
   - transfer of ownership: thru stock
   - double taxation: income, taxed to company
     dividends, taxed to you

Chapter 2 Investing and Financing Decisions

materially, in percentage, = significance.

External Events i.e. buy sth/equipment
} change in the balance sheet
Internal Events i.e. insurance paid in advance
using up

Accounts

Every transaction affects at least two accounts and $A = L + SE$ must balance

Keep Track of Account Balances

Debit: left, on the left
Credit: right, on the right

T account	
debit	Credit

and equation

Debit always ↑ assets on the left; credit ↑ on the right
↓ liability on the right

Assets = Liability + SE

Assets	
+	−
Debit	credit

Liability	
−	+
Debit	credit

SE

Contributed capital purchased ownership (stock + paid-in capital)

−	+
Debit	Credit

Earned Capital (retained earnings) effects of operating of business

−	+
Debit	Credit

Revenues	
−	+
Debit	Credit

Expenses	
+	−
Debit	Credit

Assets = Liabilities + SE
+ w/debits   + w/credits.   + w/credits

Account Balances
debit balance   credit   credit balance

e.g. + in flex plan : debit balance (asset) CANNOT BE BELOW ZERO

Assets : cannot be negative asset → debit balances
Liabilities : cannot have negative Liabilities } → credit
SE

- Journal = a collection of transactions
  debits are always first, on top
  ..... Credits are indented   Debits = Credits
- General Ledger = a collections of accounts
- Trial Balance : 3 elements (A, L, SE)
- Classified Balance Sheet : current, non-current (12 mos, 1 yr)
  Stockholders equity is always current.

$\boxed{\text{Current radio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}}$

- do we have enough current asset to pay current Liabilities

Investing activities : buying, selling noncurrent assets and investments
Operating (chpt 3.) Financing : borrow, pay debt (short-term loans), issue/repurchase stock, pay dividends
w/ customer & supplier, interest payments earning on investments

Chapter 3 - Operating Decisions and the Accounting System

Income Statement : Operating phrase

Operating Cycle : purchase good & Services on credit (no cash) → sell G & S to customers → receive cash from customers → pay cash to suppliers

Elements on Income Statement

peripheral transact. (Dispols of Assets) {
Gains : Cost of asset - accumulated depreciation - Sales value > 0, ↑ net income
cost allocation (time = est. usage time of asset)
(don't depreciate land)
Losses : ↓ net income

Peripheral activities (non-operating) = income from other (source), gain/loss on disposal of assets
Operating activities = nature of bussiness

$\boxed{\text{Earning per share} = \frac{\text{net income}}{\text{share}}}$

Operating Expenses

expenditure is an outflow of cash.
expense recognizes when we incurr it

Matching Principle : connect associated revenue w/ expenses

$$\boxed{\text{Net profit Margin} = \frac{\text{net income}}{\text{Net sales/operating Revenue}}}$$

Chapter 4 - Adjustments, Financial Statements, the Quality of Earning

Types of adjustment

Revenues

① Deferred revenues
② Accrued revenues

① cash
↓
~~Revene earned~~
↑
② cash

Ex.
tuition
doing tax for you

Expense

① Deferred Expenses
② Accured Expenses

① cash
↓
~~Expenses incurred~~
↑
② cash

tuition, rent, insurance
interest

AJE adjusting Journal Entry (Debits, Credits)
done at the end of accounting period,
usually done by computer automatically.

Depreciation

i.e buy an asset, plan to use 5 yrs
match expense w/ revenue

accumulated depreciation (+XA, -A)
XA : reduces the value of assets
(contra-asset)

Interest rate are annual.

$\left\{\begin{array}{l}\text{propety and equipment} \\ \text{accumulated depreciation}\end{array}\right\} \Rightarrow$ newness of equipment

permanent accounts = on the balance sheet (A, L, SE)
accumulate overtime

Temporary accounts: Specific time, (rev., exp.) effect of the end of period is moved to balance sheet

Earnings per Share = $\frac{\text{Net Income}}{\text{\#Avg. of common Share Outstanding (held by shareholders) over the period}}$

(only in hands of shareholders)

(only 1 ratio req'd on finance statement, bottom of Income statements)

Total Asset Turnover = $\frac{\text{Net Sales (Oper. Rev.)}}{\text{Avg total Assets}}$ at least 1, higher better

(asset produce # to pay itself and get some more) Whether asset is productive,
asset generate rev. > costs

Closing the Books

move the effect of income statement (net income) $\xrightarrow{\text{Push into}}$ balance sheet
→ return to 0 → start the new period.
in temp account
(income statement)

	Sale Rev.	
CE (closing Entry)	100	100 Bal.

	Exp.	
Bal.		CE

⟶ Returned Earnings

Cash Account is unaffected

Chapter 5 - Communicating and Interpreting Accounting Info

The Fraud Triangle.

{ Corporate Govern: (good internal control) Policies that protect the asset
Sarbanes-Oxley Act

Triangle

Incentive: personal tempation to steal.
Opportunity = take temptation ← restrict oppor. for fraud.
Rationalization: "I deserve it"

Seperate, Segregation of duty
one person does not have total control

- Auditors: determine whether accounts balances are correct. Work for Board of Directors not company
- Board of Directors = elected by stockholders
- Regulators

    PCAOB = audit auditors who audit publicly-traded companies

    FASB = accounting standards

    SEC

- Managers: appointed by board of directors

    CEO

    CFO

best
- Unqualified (clean) Opinion
- qualified
- adverse
- disclaimer

worst

The disclosure process

1. Press release
2. Annual report
3. Annual report Form 10-K to SEC

   (Form 10-Q — quarterly)

Nonrecurring items

Earnings per Share (EPS) $= \dfrac{\text{Net income } *(- \text{ perferred dividends})}{\text{\# Avg Com Share Outstanding}}$

Gross Profit Percentages $= \dfrac{\text{Gross Profit}}{\text{Net Sales}} = \dfrac{\text{Net Sales} - \text{Cost of Sales}}{\text{Net Sales}}$ (to cover operating expenses)

Statement of Comprehensive Income

Other Comprehensive (loss/income)

external factors to company
- Currency Translation Rate difference
- Fair value change on availble-for-sale Investments
- ...
- ...

Statement of Cash Flows

Indirect method

Statement of Cash Flows

- Indirect method: Operating activities
  net income → cash
  accrural
  accounting

cash and cash equivalents : Saving account, etc. other forms other than cash

Operating

Net income

Adjustment to reconcile

- depreciation, add back always
  b/c no cash involved, expenditure while reduces net income.
- Other noncash items
- changes in operating assets and liabilities

Investing

purchase of marketable securities, w/ idle cash (Stocks, bonds mutual funds)

Sell of securities

purchase of equipment
intangible assets

- Cash used

Financing [inflow] (Sell stock, borrow $)
[outflow] Pay back loans, debt

Stock : stock company has sold (initial sale → investor)
Once stock in market (sold by others) → not on Finacial Statem)
(cash from sale of stock)

- Cash generated

Notes to financial Statements

1. Policies : accounting policies / practices notes
   this is how we do it & why
2. Supplemental Info : detailed info about the data
3. Info impacts the Company financially but not on balance sheet
   accounting rules, to borrow $ w/o affecting (off-balance sheet) balance sheet. off-balance sheet commitment, pending lawsuit
4. voluntary disclosures : don't have to do, show investors growing markets

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Avg Total Assets (beg.-end.)}}$$

$$\text{ROA} = \text{Net Profit Margin} \times \text{Total Asset Turnover}$$

each transactions affect the ratio

$$\underbrace{\frac{\text{Net Income}}{\text{Avg total assets}}}_{\text{ROA}} = \underbrace{\frac{\text{Net Income}}{\text{Net Sales}}}_{\text{Net profit Marg.}} \times \underbrace{\frac{\text{Net Sales}}{\text{Avg tot. Assets}}}_{\text{Tot. Ass. Turnover}}$$

chapter 6 – Reporting and Interpreting Sales Rev., Receiv., Cash

Revenue Realization Principle : revenue recognized when earned (accrual accounting for revenue)

earned
- Good, Services delivered
- pursuadive evidence of an arrangement for customer payment (verbal contract also ✓)
- determinable price
- Collection is reasonably assured

Sale Revenue
- Credit card discount fee

Net Sales

Sales discount

pay early, get discount

2/10, n/30 → due in 30

2% discount, pay in 10 days, net

pay $98 in 10 days

pay $100 after 20 days

interest $\frac{\$2}{\$98}$ in 20 days $= 2.04\%$

$= 37.23\%$ in a year

Sales returns and allowances

$100
- $5
- $10

} seperate account

$85

Sales Revenue (full price)
- Credit Card discount
- Sales discount (discount to customers
- Sales returns and allowance

Net Sales

Accounts Receivable : short term <90 days, business to customer owing $

Notes Receivable : usually money, cash, have contract, long (non-current) term >1 yr

Trade Receivable : bussiness to business (owes)

Non-trade receivable : others, business transaction. e.g. loaning $ to employees

Bad debt : they are not going to pay you the money they owe

Matching principle : like depreciation, if 1% $ never come in, looking into history bad debt Expense account to prepare for it Anticipation matched w/ associated revenue

Bad debt Expense (+E, -SE) Debit

Allowance Account (+xA, -A) Credit

Contra-asset account like depreciation substract from account receivable

→ Write-off happens — don't expect to collect $

Allowance Account (-xA, +A) Debit

Accounts Receiv. (-A) Credit

Aging of Accounts receivable

Bad debt Calc methods

1. percentage of credit sales method
   all credit sale × percentage from history (bad debt loss rate)

2. Aging receivables (more common)
   longer sb owes you, less likely to get it back

Matching Principle [conflict] to fix " expense incurred" eg. depreciation
match expense w/ revenue
do estimate and record it now

Minimize bad debt

- cash: bearer instrument - prob: people can take your cash, vulnerable to theft, fraud
- credit card - prob: discount fee

Receivables Turnover = $\frac{\text{Net Sales}}{\text{Avg Net(Trade) Account Receiv.}}$

how effective you are to collect # owed

change in account receivable affects cash flows

{ cash equivalents: Treasury Bills, Certificates of Deposit
{ cash

Cash Management: maximizes cash
take discount, pay bill till last day due → (investment ?)

Bank reconciliations: bank - you say you have cash ?
< financial inst
your accounting sys
bussiness: accounting - bank (b/c people take cash w/o your knowledge)
to verify telling the truth (the balance they tell you is correct)

ending cash balance from your accounting syst.
+ interest paid by bank
- NSF checks / service charges
(non-sufficient fund) bad check received
± errors (company)

Ending correct cash bal.

=

ending cash bal. from bank statement
different
use the process to reconcile/agree them
+ deposit in transit (comes from cash)
- outstanding checks (haven't been cash paid presented sent but)
± bank errors

Ending bal

Bank Reconciliation 'cont

1. Time differences : paper-based transactions (checks, etc) $\xrightarrow{\text{after this}}$ Journal Entry Adjust. (slide 6-29)
2. Errors in Recording Transaction

Credit Card discount (+XR, -R, -SE) — cash debit (+A); credit card disc. debit (-R, -SE); sales revenue credit (+R, +SE)

Sales Returns and allowances (+XR, -R, -SE) see 6-32

Sales discount (+XR, -R, -SE) see 6-31

Chapter 7 - Cost of Good Sold and Inventory

Inventory Management
- minimize cost
- quality

Inventory
- Merchandisers : buy from sb made for you
- Manufacturing : made yourself

Cost principle = inventory recorded at the price paid

Manufacturer :

raw materials

Direct Labor = prof., person building the car

Factory Overhead (indirect) = police, parking services — cannot connect direct to product

Cost of goods solds

Beginning inventory + Purchases = Good Avail for sale

Goods avail sale - Ending inventory (bal. sheet) = Cost of Good Sold (inventory)

2 types of Inventory sys

1. Perpetual = account inventory as it come in/out real-time, instanenous
2. Periodic = update until end up period (small business, few items)

Inventory Costing Methods

1. Specific identification
   house, cars, high dollar, Jewery

large volume items ways to esti.

2. First-in, First-out = first comes in from manufracture first, come out first (assume) Common
3. Last-in, First-out = last comes in is first sale
4. Weighted Avg

First in, First Out

{ Oldest Cost → Cost of Goods Sold
Recent Cost → Ending Inventory

prices change!

Cost flow assumptions

— depend on method impact on net income and what's on the balance (inventory) sheet

Last in, first Out - Opposite

Avg Cost = Single Cost to all units (avg)

Advantages

FIFO : Ending inventory = current replacement cost (what have to pay get more) new stuff → inventory

LIFO : matching principle = match cost w/ revenue new stuff → sold

Weighted Avg = smooth out price changes. good compromise.

- Net Income Effect — Income Tax Effect
- If LIFO to fill taxes, have to use LIFO to produce Financial Statement

Lower of cost or market method electronics - price ↓↓

compare what you have to replacement cost what you paid ≥ replacement cost

to prohibit inflation of inventory (overstate asset)

DO NOT change when replace. cost > cost, but change when replace cost < cost.

- Cost of good sold debit
  Inventory credit to adjust

Inventory Turnover =

If signif. diff. between LIFO, FIFO, company has to tell you

Inventory & Cash Flows

change in accounts payable affect cash flow

Manufacturing/Cost/Managerial Accounting

Raw Material purchased → Raw Material Inventory → Work in progress Inventory → Finished good inventory → Cost of Good Sold

Compute the Cost to produce to figure out what to charge

Manufacturing Cost

3 Cost Components

① Direct Materials

② Direct Labor

③ Manufacturing Overhead = indirect materials/labor, etc. (rent → fixed cost, property tax, insurance, etc)
cost incurred to do bussiness but hard to attach to products
use est. rates to attach cost to products

2 types of Cost

Prime Cost = direct cost ①+②

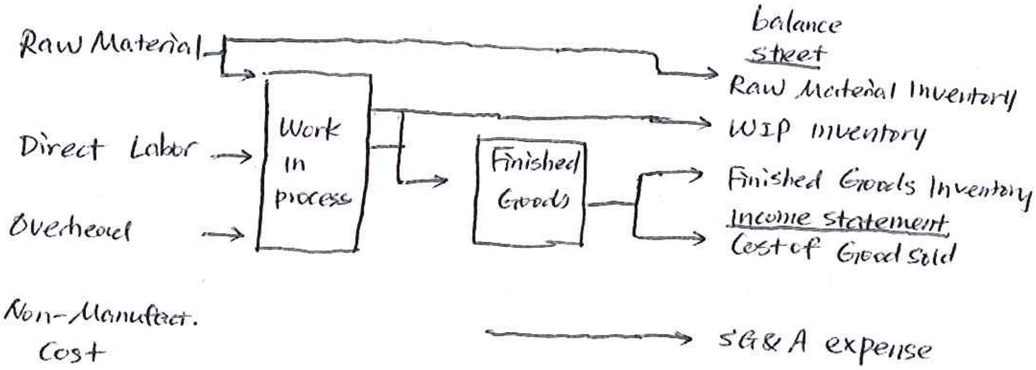
Conversion Cost = # spend to convert raw materials to finished products ②+③

SG & A

product vs period cost

product cost = direct material, labor, overhead

period cost = everything else



deplete natural resources
depreciate
Tangible / physical
Intangible / non-physical
amortize

Chapter 8 – Assets (long-lived)

(assets used to run business)

Tangible
land (do not depreciate land)
other cost - allocated (depreciation)
natural resources (depletion)

Intangible
Definite Life: patent, copyright, franchises
Indefinite Life: trademarks, goodwill (pay more for company than it worth, accounting)

dated term
Fixed Asset Turnover = $\frac{\text{Net Sales}^{(-\text{ returns, etc})}}{\text{Avg Net fixed Assets}}$
(tangible asset)

more turnover (more depreciation)

Acquisition Cost: capitalize all cost, interest not included

Buildings: { building purchase cost, Renovation, repair fee, legal, realty fee, Title fee

Equipment { purchase price, installation cost, transportation, installment

Land { purchase price, commissions, title insurance premium, Delinquent taxes, Surveying, title search

Acquisition by construction

direct labor, materials (raw)
overhead (charge involved but cannot direct connect)
interest on debt incurred while building
(after building, not)

Repairs, improvements

increase the value of asset, capitalized (assetized), add to asset account. depreciation ✓

Ordinary repairs and maintance

expense in income statement

depreciation cost

1. Straight line 10, 10, 10, 10, .. $\frac{\text{cost} - \text{residue}}{\text{useful life in yr}}$ (capitalized) all acquisition cost included
2. Units of product (depletion), nature resources
3. Declining balance: straight line does not reflect reality of value
most in first year, less follows..
20, 10, 5, ...

Calculation of: acquisition cost, est. useful life, est. residual value (salvage value)

last year underpreciated balance = salvage value
find # to make it work

inventory method
depreciation method $\xrightarrow{\text{affect}}$ net income

Tax reporting

Financial Reporting — i.e. Interest income (financial state) from federal debt, not taxable
Tax Reporting — income in one not shown in another

Operating leases not reported on the BS as L, unlike financing (capital) leases

Asset Impairment

Impairment
① Casuality
② Obsolescence (electronics)
③ Lack of demand of services

net book Value > est. future cash flows ⇒ impaired
(purc. price − accum. deprec.)

Impairment loss = Net Book Value − fair Value (market) (of the used)

document = reduce Value of asset

Disposal

BV = acquisition cost − accumulated depreciation

Ex in slide 8-34

	debit	credit
cash (+A)	11,000,000	
Accum. Dep. (−XA, +A)	20,400,000	
Flight Eq. (−A)		30,000,000
Gain on Sale (+Gain, +SE)		1,400,000

→

loss on	$6.0 m	
cash (+A)	$9.0m	
Accum. Dep	20.4 m	
Flight Eq (−A)		30.m

2. Amortization of Intangible Assets

{ Definite Life = Straight-line (Copyright life of creator +70yrs, Patent useful life left on 20yrs)
{ Indefinite Life: annually test (subjective), no amortization (Goodwill, Trademarks

Goodwill = not recognized until sale of company (reputation, employees, etc.. aren't on BS)
not amortize
annual review
(purchase price exceeds fair market Value)

FMV of Net Asset = FMV Asset − Liability

Patent: research and develop. cost − expensed (GAAP)
− capitalized (IFRS)

8-43 GAAP vs IFRS

3. Depletion of Natural Resources

Chapter 9 - Liabilities

Debt : riskiers
Equity : stock, give up ownership

Liquidity — Working Capital = Current Asset − Current Liabilities (should be more)
the abilities to

Accounts Payable Turnover = $\frac{\text{CoGS}}{\text{Avg Acct Payable}}$

Avg Age of Payables (~30 days) = $\frac{\text{365 days}}{\text{turnover ratio}}$

refinancing debt w/ lower Interest

- GAAP: ability to refinance → to reclassified as long-term
  own 6 months → prove to refinance → debt shown as long-term
- IFRS: actual pay off new loans → move

estimated Liabilities

- Probable (estimatiable) : high chance of lose — >50% (IFRS), >70% (GAAP)
- Reasonably Possible : lose or win
- Remote : low chance of lose

	Probable	Reasonably Possible	Remote
estimatable	liability	note	
Not estimatable	note	note	Not required

long-term liabilities

Creditor require the borrower to pledge specific assets as security for long-term Liabilities (collateral)
(borrower put up an asset against things they borrow in case they won't pay back)

leases liabilities = if lease > 1 yr, lease = liability

Operating lease = short-term lease
Capital lease = long-term lease

lessor / lessee

short lease = expense (rent expense)
Capital lease = asset, liability

PV & FV

annuity = series of payments, equal periodic payments

Interest rate (IRR) :

Inflation rate	2%
risk (bad-debt expense)	3%
(real) return/reward	2.5%
total int. rate	7.5%

Journal Entry

FV= $200,000 , Int rate = 12% PV= $159,440
(interest included)

Jan. 1 (2014)	Delievery Trucks	$159,440	
	Notes Payable		$159,440
Dec. 31 (2014)	Interest Expense	$19,133	
	Note Payable		$19,133
Dec. 31 (2015)	Interest Expense	$21,429	
	Note Payable		$21,429
Dec. 31 2015	Notes Payable	$200,000	
	cash		$200,000

Chapter 10 — Bonds

Advantage: tax deductible
borrow $ low int rate, invest in my company, return at higher percent (but no gaurantee)
Disadv. = bankrupt

Bond components: principal, cash int. payments, contract int rate, market int rate
Callable Bond = bond be called & reissued
Convertible Bonds: bonds ⟷ stocks for trade-in

① stated = market rate (10-8) at par
② stated < Market rate bond discount = lower price of bond for int. paying? get good value Times Int. Earned
③ Stated > Market rate bond premium

Discount. PV, using market rate, bond principal
PV, using market int rate, payment stream of int.

effect interest Cash (+A)
Discount on Bond
Bond Payable

amortize = allocate discount/premium
- Straight-line
- effective interest

1/1/2014 $96,536 · 12% · $\frac{1}{2}$ = $5,792 (market interest rate — instead of face int. value)

face 100,000 bond
10% int. face.

$5,792 - $5,000 = $792 — Journal Entry Disc. amortization
$3,464 - $792 = $2,672 Unamortized disct.
$96,532 + $792 = $97328

bond premium : rise the price

6/30/14

$\$103,630 \cdot \overset{market}{8\%} \cdot \frac{1}{2} = \$4,145$

$\$5,000 - \$4,145 = \$855$ Entry

$\$3,630 - \$855 = \$2,775$

$\$103,630 - \$\cancel{2,775}\ 855 = \$102,775$

12/31/14

$\$102,776 \times 8\% \times \frac{1}{2} = \$4,111$

$\$5,000 - \$4,111 = \$889$

$\$2,775 - \$889 = \$1,886$

$\$102,775 - \$889 = \$101,886$

Debt-to-equity = $\frac{\text{total liabilities (creditors)}}{\text{Equity (owners)}}$

Ex. $20,000 Face, 12% face; 2 years - semi-annual, 10% market

present Value of Annuity $= (P)\left(\frac{1-(1+r)^{-n}}{r}\right)$

PV(principle) $= \$16454 = \frac{20000}{1.05^4}$

PV(int) = PV($20,000)$\boxed{(12\%)}(\frac{1}{2})$ annuity $\$4,255 = \frac{1200}{1.05} + \frac{1200}{1.05^2} + \frac{1200}{1.05^3} + \frac{1200}{1.05^4}$.

PV($1200)

how much cash have to pay int.

Chapter 11 - Equity

Shareholders: elect the boards, dividends, liquidation

Authorized Shares
- unissued
- Issued
  - Outstanding (stand outside of)
  - Treasury: brought back, reaquired stock

SE
- Retained Earning
- Contributed Capital
  - common stock, par

- if people buy and sell stock, transaction NOTHING TO DO W/ accounting record of the company

Dividend yield = $\frac{\text{Dividends Per Share}}{\text{Market Price (Stock) Per share}}$

preferrred stock = get dividend first, fix dividend rate
no voting rights

preferred Cumulative > preforred non-cumulative > Common Stock

Colaterial : obligation.
retained earnings reserved/obligated to support a loan

Treasury Stock = reduces SE

Chapter 12 - Statement of Cash Flows

Cash and Cash Equiv.

{ Operating Activities = from income statement interest(paid/received)
Investing Activities } from BS
Financing Activities } issue stock, borrow $, pay back loan (principal)

Work from Bottom up

Operating Activity
(InDirect Method (common))

Net income from Income Statement
Undo non-cash transaction
- add back depreciation, amortization (bought of asset - counted as Invest. Section)

Current assets = accounts receivable, Inventory, prepaid Expense
Current Liabilities ↓, cash ↑

A.R.	100	
Rev		100 ↑ Net income
Cash	100	
A.R.		100 ∅ N.I.

ΔCash + Δ Non-Cash Asset = Δ Liab. + Δ SE.

ΔCash = Δ Liab. + ΔSE. − Δ Non-Cash Asset (direct method)

Indirect method only apply to operating Section
& direct

Indirect   Net income $\xrightarrow{+/- \text{ adjustment}}$ CF from operating

+ losses   + dep.
− gains   amort.

changes in balance

	increase	decrease
current Asset	Subtract	Add to NI
Current Liabilities	Add to NI	Subtract from NI

Cash $10,000 ← investing
A.V. (Truck-A.D.) 8,000

Gain 2,000   Income Statement → operating

Subtract gain, or it will count twice

Adjustments

- Depreciation: add back   Dep. exp $1,000 / A.D. $1,000   NI ↓ but no cash involved
- Accounts receivables sub. if increase   A.R. $2,078 / Revenue $2,078   NI ↑ but no cash involved
- Inventory: add if decrease   COGS $1,319 / Inventory $1,319   NI ↓. but no cash involved
- Prepaid Expense: sub. if ↑   Prep. Exp $4,219 (asset) / cash $4,219 (asset)   NI ∅ but cash did flow
- Accounts Payable: add if ↑   Exp $829 / acct. pay. $829   NI ↓, no cash involved
- Accrued Exp. add if ↑   accrued exp. $3049 / payable $3049   NI ↓

Current Asset: Accounts receivables, Inventory, Prepaid Expense
CL.: Accounts Payable, Accrued Exp.

Quality of Income ratio
Cap Aquisition ratio
Free Cash Flow =

Notes — Address in Financing Section

Investing

depreciation changes → changes in assets

Direct Method

cash from customers (+) = Begin Acc. receivable + sale − ending Acc receiv

rent expense = beg. prepaid rent + cash paid for rent (−) − prepaid rent, end