

FINANCIAL ACCOUNTING

A: HOW TO STUDY ACCOUNTING

- It is more important to interpret the accounting methodologies & rules
- But, must know the mechanics and the ways accounting methods affect the financials of the firm
- Also, CFA has lately been stressing International Accounting Practices

B: PENSIONS & EMPLOYEE BENEFITS

- **CURRENT EMPLOYEE BENEFITS**
 - Health & Life INSURANCE benefits are Expensed on a PAY-AS-YOU-GO basis (cash acct.)
 - Vacations, Holiday & Sick Days are ACCRUED (expenses for whole year are estimated at start of year and charged on a smoothed basis to each quarter (FASB 43)
 - Severance, Disability & Unemployment benefits are accrued like above (FASB 112)
- **PENSION BENEFITS (FASB 87)**
 - **Types:**
 - Defined Contribution: Employer makes a certain contribution to the fund each year. Employee's benefit is determined by the performance of the portfolio. Employer's ANNUAL PENSION EXPENSE is the amount the firm Contributes. Employee bears investment risk
 - Defined Benefit: Employer obligated to pay specific benefits to the retired employee. More difficult to determine the ANNUAL PENSION EXPENSE (ABO or PBO)
 - *Final Pay (Career Average)* relates benefits to past wages
 - *Flat Benefit:* relates benefit to a fixed value
 - **EXAMPLE of Calculating a Firms Pension Obligations**
 - *Lump Sum Pension to be paid at Retirement Age 65 = 25% of employee's final salary * years worked.* For a 62 year old employee, just starting, to work for 3 years with salary in Year 1 of \$10,000; Year 2 of \$15,000: and Year 3 of \$20,000.
 - *Lump Sum = \$15,000: (.25)(20,000)(3)*
 - Must be able to determine the PENSION OBLIGATION, in either of 2 ways ,of Employer from this data
 - **Accumulated Benefits Method (ABO)**
 - FASB 87 requires ABO when determining an employer's pension obligation for any FLAT BENEFIT; DEFINED BENEFIT Pension Plan
 - ABO = Present Value of all pension rights of vested & non-vested employees that have been earned to date

<u>Year</u>	<u>(.25)(Current Salary)(Total Yrs. Service to date)</u>	<u>Earned Future Benefit Based on Formula</u>	<u>PV: (EFB)/(1+4)ⁿ</u>	<u>ABO</u>
1	(.25)(10,000)(1)	2,500	(2,500)(1.10) ²	2,066
2	(.25)(15,000)(2)	7,500	(7,500)(1.10) ¹	6,818
3	(.25)(20,000)(3)	15,000	(15,000)(1.10) ⁰	15,000

- ABO measures firm's pension obligation only on the basis of service performed by the employees TO DATE
- GOOD: if plan is terminated, people can then get their ABO
- BAD: it does not ESTIMATE FUTURE Benefit Obligations

- **Benefits/Years-of-Service (PBO)**

- FASB 87 requires it for FINAL Benefit or Career Average DEFINED BENEFIT. Based on Estimates of the Future. Must go to the ACTUARY to get estimates of Various Things
- Take the Final Expected Projected Benefit Obligation, and then Amortize it over the Employee's Years of Service.

Year	Earned Future Benefit	PBO (PV of EFB)
1	5,000	4,132
2	10,000	9,091
3	15,000	15,000

- Earned Future Benefit:
Actuarially Projected Total Benefit = (.25)(20,000)(3)
Projected Remaining Years of Service = 3
Earned Future Benefit = (15,000)/(3) = 5,000 per year
Earned Future Benefit_{year t} = Earned Future Benefit_{year t-1} + 5,000
- PBO is a much better Projection of Firm's Ongoing Pension Obligation at a particular point in time
- NOTE: ABO = PBO of FLAT PAY DEFINED BENEFIT because no allowance for future growth of wages
- Manipulation possible by discount rates used in PV calculations and by the estimated growth rate of future wages.
- FASB 87 mandates $r = i$ for high quality bonds
- FASB 87 requires ABO & PBO be DISCLOSED in Footnotes. Also, must disclose VESTED BENEFIT OBLIGATIONS (portion owed to employee even if employment ceases)

NOTE: PENSION OBLIGATION is a Balance Sheet Concept, PENSION COST is an Income Statement Concept.

- **Computing PENSION COST under FASB 87**

- There are SIX Components to Pension Cost

- 1.) **Service Cost**

- $\text{Service Cost} = (\Delta \text{ Earned Future Benefit}) / (1 + r)^t$

Final Pay or Career Average Plans (PBO)

Year	Earned Future Benefit (PBO)	$(\Delta \text{ EFB}) / (1+r)^t$	Service Cost
1	5,000	$(5,000 - 0) / (1 + .10)^2$	4,132
2	10,000	$(10,000 - 5,000) / (1 + .10)^1$	4,545
3	15,000	$(15,000 - 10,000) / (1 + .10)^0$	5,000

Flat-Pay or Terminated Plans (ABO)

Year	Earned Future Benefit (ABO)	$(\Delta \text{ EFB}) / (1+r)^t$	Service Cost
1	2,500	$(2,500 - 0) / (1 + .10)^2$	2,066
2	7,500	$(7,500 - 2,500) / (1 + .10)^1$	4,545
3	15,000	$(15,000 - 7,500) / (1 + .10)^0$	7,500

- 2.) **Interest Cost**

- $\text{Interest Cost} = \text{PBO (or ABO)}_{\text{last year}} * r$ used to compute $\text{PBO(ABO)}_{\text{last year}}$

- 3.) **Expected Return on Pension Assets**

- This is a NEGATIVE COST, which reduces the current pension expense (non taxable for pensions, unlike other assets for other employee benefits)
- $\text{E(RPA)} = \text{MV-Assets}_{\text{last year}} * \text{E(Long Run Rate of Return on Pension Assets)}$

- 4.) **Amortization of Cumulative Unrecognized Actuarial & Investment Gains/Losses**
- Usually happens when the plan changes assumptions
 - Compute net Cumulative deferred gains/losses
 - If Net Cumulative Deferred Gains/Losses < 10% of PBO/ABO or Plan Assets, no amortization is required
 - If NCDG/L > 10% of PBO/ABO or Plan Assets, then the EXCESS cumulative deferral must be AMORTIZED into the pension cost structure on a straight line basis over the average remaining service life of the work force
 - Amortization of deferred Losses will INCREASE Pension Cost, while Amortization of Deferred Gains will DECREASE Pension Cost

- 5.) **Amortization of Unrecognized Prior Service Costs**
- Tends to occur when the firm changes the plan, the ABO or PBO will change and amortize this change over time OR when plan comes into existence
 - FASB 87 requires that all cumulative deferred prior service costs be Amortized using a straight line method over the average remaining service life of the employees OR 15 years, whichever is longer.

- $\text{Amortization of Prior Service Costs} = (\Delta \text{PBO or ABO}) / \text{Avg. Remaining Service Life}$

- 6.) **Amortization of Unrecognized Transition Amount**
- On Day FASB 87 adopted, calculate Value of the Plan assets and the PBO (PA – PBO) is this Unrecognized Transition Amount
 - Straight Line Amortized over Average Remaining Service Life of Employees

▪ **FASB 87 FOOTNOTE DISCLOSURE REQUIREMENTS**

- Contains 3 PARTS

1.) Funded Status: = $MV_{\text{Plan Assets}} - \text{PBO}$

2.) Components of Pension Expense (All 6)

3.) Underlying Assumptions:

- When one looks at the Footnotes, an Analyst can Make the Following **Calculations**

1. **Calculate the Contributions Made to the Pension Fund by the Firm**

$\text{Plan Contribution} = \text{Reported Pension Expense (Cost)} + \Delta \text{Prepaid Pension Expense (Funded)}$

2. **Calculate the Benefits Paid from the Pension Fund**

$$\begin{aligned} &\text{Starting Plan Assets (Funded)} \\ &+ \text{Actual Return on Plan Assets (Cost)} \\ &+ \text{Contributions to the Pension Plan (previous calculation)} \\ &- \text{(Benefits Paid out of Pension Fund) [Plug]} \\ &\text{Ending Plan Assets (Funded)} \end{aligned}$$

3. **Calculate the Long Run Rate of Return Assumption that was Applied to the Plan Assets**

$E(\text{Return on Plan Assets}) = E(\text{Gain/Loss of Plan Assets}) / \text{Beginning Plan Assets [funded]}$

4. **Calculate the Prior Service Cost Arising from Plan Amendment**

$= \text{Amortization Prior Service Costs [cost]} + \Delta \text{Unamortized Portion Prior Service Cost [funded]}$

- Hopefully, that is all they'll ask of the 12 Calculations from the Book... I'm going to leave it here
- **Interpreting Pension Footnotes**
 - Key Relationship is Pension Cost as a Percentage of Total Payroll. Should be Stable and in the **6.5 to 7 %** range
 - May use Pension data as an entity that is separate from the sponsoring firm (as the intent of FASB 87) (treat as investment in another using EQUITY METHOD) -- or could interpret as integral part of the company and should CONSOLIDATE with the sponsoring firm's BS & IS

- **Minimum Unfunded Pension Liability**
 - On Every BS: firms must Compute their ABO & $MV_{\text{Pension Assets}}$.
 - If $MV_{\text{Pension Assets}} > \text{ABO}$, no BS entries are required
 - If $\text{ABO} > MV_{\text{Pension Assets}}$, the difference must appear on BS as Unfunded Pension Liability
- **Effect of FASB 87 on Business Combinations**
 - Hopefully, no need to worry about it.
- **ACCOUNTING FOR NON-PENSION POST-RETIREMENT BENEFITS (FASB 106)**
 - FASB 106 is quite similar to FASB 87, though there is some different terminology
 - **EPBO:** Expected Post-retirement Benefit Obligation = PV of all future non-pension benefits to be paid to employees (similar to Expected Future Benefit of FASB 87).
 - **APBO:** Accumulated Post-retirement Benefit Obligation = Portion of EPBO that has been earned by employees to date.
 - *Example:* An employee joins a firm that has a retirement hospitalization benefit plan for all employees with 20 years of service. Actuarial assumptions are that the employee will average 1 hospitalization after retirement and that it will occur 30 years in the future and it will cost the firm \$40,000 at that time. Discount rate is 6%. Given the assumptions, the firm's benefit obligations :

<u>Year</u>	<u>Expected Future Benefit Payment (Actuary assumed)</u>	<u>Expected Future Earned Benefit = (Expected Future Benefit) * (n/yrs. Required)</u>	<u>EPBO = (Expected Future Benefit) / (1 + r)^t</u>	<u>APBO = Expected Future Earned Benefit / (1 + r)^t</u>
1	40,000	2,000	7,352	369
2	40,000	4,000	7,825	783
3	40,000	6,000	8,295	1,244

- **Calculating the Current Non-pension Post-retirement Benefit Expense under FASB 106**
 - Similar to FASB 87 (6 Components)
 - 1.) **Service Cost**
 - $\text{Service Cost} = (\Delta \text{ Earned Future Benefit}) / (1 + r)^t$
 - Actuarially Determined
 - 2.) **Interest Cost**
 - Same as FASB 87
 - $\text{Interest Cost} = \text{APBO}_{\text{last year}} * r_{\text{used to calculate last year's APBO}}$
 - 3.) **Expected Return on Plan Assets**
 - Typically calculated as **ZERO**- usually funded as Pay-as-you-go
 - But, the firm may set up a plan to fund future non-pension post-retirement benefits... If so, then this will be a Negative Cost Element
 - $R_{\text{Expected on Plan Assets}} = R_{\text{last year's expected after-tax rate on plan assets}} * \text{Value}_{\text{Plan Assets at end of last year}}$
 - 4.) **Amortization of Cumulative Deferred Investments & Actuarial Gains/Losses**
 - Same as FASB 87: smoothed only to the extent that accumulated net balance of the deferred gains/losses exceed 10% the greater of the Market Value of the Plan Assets (note: usually zero) or the APBO at the end of the previous year. If required, amortized over the average remaining service time of the employees.
 - 5.) **Amortization of Unrecognized Prior Service Liabilities**
 - Will arise when a new plan is started or an old plan is amended and grants retroactive benefits to employees for services previously rendered.
 - $\text{Amortization of Prior Service Liability} = (\Delta \text{ APBO due to Plan Amendments}) / \text{Avg. Remaining Work Life}$
 - 6.) **Amortization of Transition Benefit Obligations**

- Date of Adoption, compute difference between APBO & Value of Plan Assets. Difference is the **unrecognized transition benefit obligation**. Can be recognized either:
 - a.) Expensed immediately
 - b.) Amortized over the average remaining service life of active plan participants OR 20 years, whichever is longer
- Very different from FASB 87.
- For many large firms, when FASB 106 adopted in 1992, this was a large amount.
- Most firms elected to EXPENSE IMMEDIATELY since most analysts would recognize this as a NON-CASH Expense, which could lead to better future ROE numbers
- **FASB 106 Disclosure Requirements**
 - FUNDED STATUS: shows the difference between Plan Assets & APBO
 - EXPENSE: shows total non-pension post-retirement benefit expense reported on income statement, including the components thereof
 - UNDERLYING ASSUMPTIONS: describes actuarial assumptions lying behind the data

C: ACCOUNTING FOR UNCONSOLIDATED AFFILIATES

- **TYPES OF ASSOCIATIONS**
 - **Subsidiary:** An entity that is > 50% owned by a parent firm. FASB 94 requires that majority owned subsidiaries be Consolidated with the operations of the parent company in the financial statements UNLESS the subsidiary is only TEMPORARILY under the control of the parent OR ACTUAL Control of the subsidiary does not rest with the majority owner
 - **Affiliate:** <50% owned by a parent firm. Usually it is not consolidated with the parent in the financial statements unless it is effectively controlled by the parent
 - **Associate:** Jointly owned by more than one firm, usually equally, a.k.a. Joint Ventures
- **METHODS of ACCOUNTING FOR UNCONSOLIDATED AFFILIATES**
 - **COST METHOD**
 - Used when Parent owns <20% of affiliate or when it has NO Significant influence over the affiliate (Legal factors prevent a parent from influencing the management of the affiliate, affiliate is controlled by another entity that has control of shares or Board, Parent cannot obtain financial or operating data that pertains to the affiliate)
 - Method of Ownership; Marketable Securities (FASB 115 Applies), otherwise **APB 18**
 - *For Example: Parent buys Non-marketable 10% equity interest in an affiliate for \$10,000.*

Investment in Unconsolidated Affiliate	\$10,000
Cash	10,000
 - Investment in Unconsolidated Affiliate is a LONG-TERM Asset that remains on the balance sheet at Historical Cost until the investment is either written down (when permanently impaired) or sold.
 - ONLY DIVIDENDS PAID BY THE AFFILIATE ARE RECOGNIZED AS INCOME TO THE PARENT under the Cost Method
 - *For Example: 1 year later, affiliate pays a dividend of \$1,000 (Parent receives \$100 or 10%). Parent will record DIVIDEND INCOME of \$100, which will be shown on its income statement*

Cash		100
	Dividend Income	100
 - NOTE: Dividend paid between Corporations are 70% tax exempt so long as the affiliate is less than 20% owned by the parent: if Affiliate is 20-80% or greater owned by Parent, then 80% is Tax Exempt. For Affiliates more than 80% owned by parent, 100% is Tax Exempt.

- NOTE: if dividends are declared out of earnings that were CLEARLY EARNED before the date of acquisition by the parent, such dividends are treated as a RETURN OF CAPITAL on the ORIGINAL INVESTMENT

- EQUITY METHOD**

- Used when Parent owns **20-50%** of the affiliate, or if it has SUBSTANTIAL Influence
- Here, the Parent's **Pro-rata Share of the Affiliate's Net Income is Included in the Parent's Income**
- Dividends, when declared, are treated as returns of capital.
- Any price PAID for the Affiliate in EXCESS of the Pro Rata Share of NET WORTH should be Amortized (but the amortization is Implicit, i.e., it is not shown as a separate item on the income statement)
- For Example: Parent acquires 40% of an affiliate for \$40,000. Book Value of the Affiliate is \$75,000. The FMV of the Long-term assets is \$15,000 above their book value, while all other assets & liabilities have BV = MV. The Long-term Assets have a remaining useful life of 5 years. The UNRECORDED "Goodwill" is Amortized over 40 years. One year later, the Affiliate reports a NET INCOME of \$20,000 and pays a total of \$5,000 in Dividends.*

Acquisition:

Investment in Unconsolidated Affiliate	\$40,000
Cash	40,000

NOTE: the Investment in Unconsolidated Affiliate is Actually comprised of the following elements (though not recorded this way)

BV of Net Assets Acquires (40% of \$75,000)	30,000
Undervalued Depreciable Assets (40% of 15,000)	6,000
<u>Unrecorded Goodwill</u>	<u>4,000</u>
Investment in Unconsolidated Affiliate	40,000

APB 18 requires that the undervalued depreciable assets be depreciated over their remaining useful lives and that the unreported goodwill be amortized over any reasonable period that management chooses, up to a maximum of 40 years. Yet the extra asset value and the unreported goodwill are not to be explicitly shown on the parent company's balance sheet: they are to be embedded in the Investment in Unconsolidated Affiliates Account.

Recording Unconsolidated Affiliate Income to the Parent

Investment in Unconsolidated Affiliate	\$8,000	(40% of \$20,000)
Income from Affiliate	8,000	

Recording Excess Depreciation and Amortization of Unreported Goodwill

Income from Affiliate*	\$1,300
Investment in Unconsolidated Affiliate	\$1,300

Note: Depreciation of Undervalued Long-term Assets (6,000/5 yrs.)	1,200
<u>Amortization of Unreported Goodwill (4,000/40 yrs.)</u>	<u>100</u>
Subtraction from Reported Income from Affiliates	1,300

Note: Often, cannot determine how much the affiliate's book value understates the FMV of its assets, nor to determine the useful life of the assets. Ergo, as a practical matter, any price paid in excess of the parent's pro rata share of the BV of equity is treated and amortized as unreported 'goodwill'

Note: If the price paid for an investment in an affiliate is less than the BV of the parent's pro rata share of the affiliate that is acquired, the difference is amortized and the amortization will increase the reported Net Income from the Unconsolidated Affiliate on the Income Statement and Decrease the Investment in Unconsolidated affiliate on the balance sheet

Note: Under the Equity Method, Dividends Declared or Received from an Unconsolidated Affiliate cannot be treated as Income because all of the parent company's share of the affiliates reported Net Income has already been taken into the parent's income statement. Thus, any dividends to the parent are treated as RETURNS OF (RATHER than Returns ON) Investment.

Dividends Receivable	2,000 (40% of \$5,000)
Investment in Unconsolidated Affiliate	2,000

AFTER ALL THESE TRANSACTIONS ARE RECORDED, the Parent's BS & IS will be CHANGED as Follows:

Balance Sheet

	<u>Date of Acquisition</u>	<u>One Year Later</u>
Dividends Receivable	-----	2,000
Investment in Unconsolidated Affiliate	40,000	44,700
		(40,000 + 8,000 - 1,300 - 2,000 = 44,700)

Income Statement

Income from Unconsolidated Affiliate	-----	6,700
		(8,000 - 1,200 - 100 = 6,700)

NOTE: The Dividend Received from the Affiliate is NOT Explicitly Shown on the Financials of the Parent. But, it can be computed from the following relationship:

$$\text{Div. Received} = \text{Reported NI}_{\text{Affiliate}} - \Delta \text{ Investment in Unconsolidated Affiliate}$$

Note: If drop below 20% ownership, switch between Equity & Cost, with no Retroactive change. But if move between Cost to Equity, then must change and compute what would have been had Equity Always been used. This is called *Cumulative Effect of an Accounting Change* charge to Income.

Note: When Equity is used and losses are incurred, Equity is used until investment is written down to zero. Additional losses beyond that are NOT recognized. If after the subsequent losses beyond zero are incurred, and income is once again positive, equity is not resumed until the losses are offset by this new income.

▪ **EFFECT of EQUITY METHOD on INCOME TAX EXPENSE**

- IRS does not permit Equity Method. FASB 109 governs this difference between Equity Accounting under APB 18 and the Cost Method required by the IRS. There will be a Deferred Tax Liability.

- $\text{Tax Expense} = \text{Taxes Owed on Dividend} + \Delta \text{ Deferred Tax Liability}$

- $\text{Taxes Owed on Div.} = (\text{tax}_{\text{corp. rate}} * \% \text{ div. excluded}) * (\text{Div.})$

- $\Delta \text{ Deferred Tax Liability} = \text{Taxes that will be owed in the future when either the EARNINGS are paid in dividends or captured via a capital gain on the sale of the investment.}$

- Deferred Tax Liability will be different depending on whether assume Dividends or Cap. Gain.

- $\Delta \text{ Deferred Tax (Div.)} = (\text{tax}_{\text{corp. rate}} * \% \text{ div. excluded}) * (\Delta \text{ Investment in Unconsolidated Affiliate})$

- $\Delta \text{ Deferred Tax (Cap.Gain)} = (\text{tax}_{\text{cap. gain}}) * (\Delta \text{ Investment in Unconsolidated Affiliate})$

▪ **IMPLICATIONS FOR ANALYSIS**

- Investment Account in Financials do NOT represent the true value of those investments
- The 20% rule is Arbitrary (also, there is the significant influence test)
- Historical Cost is Irrelevant to Investment, concerned with Market Value
- Cost Basis gives parents opportunities to manipulate if influence the dividends paid to it by affiliate so as to smooth its own earnings
- Equity assumes that a dollar of affiliate earnings is as good as a dollar of parent company earnings. May not be true, especially for foreign affiliates.

D: ACCOUNTING FOR GAINS/LOSSES OF MARKETABLE SECURITIES

- **Cash:** Special Marketable Security whose market value remains at par. But not all cash is liquid (certain loans might require \$X cash be kept on deposit in a bank, and so forth)
- **Marketable Money Market Securities:** Usually carried at Amortized Cost (Cost + Unrecognized Interest as earned)
- **Marketable Debt & Redeemable Preferred Securities:** Even if have maturities over 1 year, may be carried at Amortized Cost (like Money Market) unless their MV is SUBSTANTIALLY Below Cost, in which case it must be carried at Market Value
- **Marketable Equity Securities:** FASB 12 is no longer applicable to Marketable Equity Securities. FASB 115 is the new Standard (Mark-to-Market Accounting). Used to be lower of cost or market (recorded on BS). Then, would have all these unrealized gains & things.
- **FASB 115 Mark-to-Market**
 - Always records Marketable securities at their MARKET VALUES on the Balance Sheet. Use a *Market Valuation Adjustment* account that adjusts the original cost of a PORTFOLIO up or down to its market value.

$$\text{MV Adjustment} = \text{MV}_{\text{Assets Held}} - \text{Historical Cost}_{\text{Assets Held}}$$

$$\text{MV Adjustment} = 0 \text{ for assets that are sold}$$

$$\text{Total Portfolio Gain/Loss} = \text{Realized Gain/Loss} + \Delta \text{MV Adjustment}$$

For Example: Make the following purchases on 12/31/X0

100 Shares of ABC @ 80	\$8,000
200 Shares of JKL @ 20	\$4,000
300 Shares of XYZ @ 10	\$3,000
	15,000

JOURNAL:

Marketable Securities	15,000	
Cash		15,000

BS:

Marketable Securities	15,000
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Later, on 12/31/X1, the price of the Securities Change

ABC @ 70
JKL @ 22
XYZ @ 11

Create a Portfolio Analysis Table 19X1

<u>Stock</u>	<u>Current Price</u>	<u>Realized Value</u>	<u>Portfolio Value</u>	<u>Original Cost</u>	<u>Market Valuation Adjustment</u>	<u>Market Valuation Adjustment Last Year</u>	<u>Δ Market Valuation Adjustment</u>	<u>Realized Gain</u>
100 ABC	70	---	7,000	8,000	(1,000)	---	(1,000)	---
200 JKL	22	---	4,400	4,000	400	---	400	---
300 XYZ	11	---	3,300	3,000	300	---	300	---
			14,700	15,000	(300)	---	(300)	---

Balance Sheet Changes

	<u>19x0</u>	<u>19x1</u>
Marketable Securities (Cost 15,000)	15,000	14,700

Income Statement

Realized Gain	---	---
<u>Δ MVA</u>	---	(300)
Total Portfolio Gain	---	(300)

Now, during 19X2, ABC is sold for \$9,600 and the MV of JKL @24 & XYZ @8

Create a Portfolio Analysis Table for 19X2

<u>Stock</u>	<u>Current Price</u>	<u>Realized Value</u>	<u>Portfolio Value</u>	<u>Original Cost</u>	<u>Market Valuation Adjustment</u>	<u>Market Valuation Adjustment Last Year</u>	<u>Δ Market Valuation Adjustment</u>	<u>Realized Gain</u>
100* ABC	96	9,600	---	8,000(will be removed from Balance Sheet)	0	(1,000)	1,000	1,600
200 JKL	24	---	4,800	4,000	800	400	400	---
300 XYZ	8	---	2,400	3,000	(600)	300	(900)	---
		9,600	7,200	15,000	200	(300)	500	1,600

Balance Sheet	<u>19X0</u>	<u>19X1</u>	<u>19X2</u>
Marketable Securities (Cost: 7,000)	15,000	14,700	7,200
Income Statement			
Realized Gain		---	1,600
<u>Δ Market Valuation Adjustment</u>		(300)	500
Net Portfolio Gain		(300)	2,100
Value of Portfolio	7,200		
+ Realized Gain	9,600		
Total Value	16,800		
-Portfolio Value t ₁	(14,700)		
Net Portfolio Gain	2,100		

▪ **Application of Mark-to-Market Accounting**

- FASB 115 has replaced FASB 12. Requires categorizing in 1 of 3 ways.
 1. *Debt Securities Intended and Able to Be Held until maturity.* VALUED at Amortized Cost as was permitted under FASB 12.
 2. *Debt and/or Equity Securities Intended to be Traded.* Classified as Current Assets and accounted for using the Mark-to-Market Method.
 3. *Debt and/or Equity Securities that probably will NOT be held until Maturity, but not likely to be traded.* May be classified as EITHER Current or Long-term Assets and valued using Marked-to-Market Method. ONLY REALIZED gains/losses are recorded on the income statement. Unrealized Gains/losses are separate component to shareholder's equity.
- Thus, FASB 115 requires Marked to Market Accounting, but whether or not UNREALIZED gains/losses will flow through to the Income Statement depends upon Management Intent.
- FASB 60 requires INSURANCE Companies to carry all common stock, non-redeemable preferreds, and bonds held for trading or for sale at their market value. But period-to-period changes are reflected in a special section of shareholder's equity on the balance sheet rather than flowing through to the Income Statement. But Fixed-income securities are carried at AMORTIZED cost with market values being disclosed. In all cases, the income statement only reflects dividend and interest income, realized gains & losses, and the write-down of assets whose values have become permanently impaired.
- Hopefully, all these other little notes won't be on the exam.

- **Analytical Comments to FASB 115 & Marketable Securities**
 - If a firm has earnings with lots of strength coming from Marketable Securities, must break the reported income into 3 parts
 - 1.) OPERATING Income excluding Portfolio Returns (Realized gain/loss & div. & int.)
 - 2.) Portfolio Income from interest & dividends
 - 3.) Portfolio Gains & Losses (Using Mark to Market)
 - The Way to do this is as follows:
 - 1.) Remove any realized/unrealized gains/losses on marketable securities that are included in pretax income from the pretax income (use footnote disclosures)
 - 2.) Remove any interest/dividends from marketable securities that is contained in reported pretax income (use footnote disclosures)
 - 3.) This will be a better indication of pretax OPERATING INCOME. Then apply an appropriate tax rate to determine net operating income.
 - 4.) Also apply an appropriate tax rate to Dividend & Interest Income to determine Net Investment Income (note; some dividends may be largely tax-free)
 - 5.) Using Footnotes, determine the Actual Portfolio Gains/Losses

$$\text{Actual Portfolio Gain} = \text{Realized Portfolio Gain} + \Delta \text{Market Value Adjustment}$$

$$\Delta \text{MVA} = (\text{MV}_{\text{portfolio}} - \text{Cost}_{\text{historical of portfolio}})_{t-1} - (\text{MV}_{\text{portfolio}} - \text{Cost}_{\text{historical of portfolio}})_{t0}$$
 - 6.) Apply an appropriate Cap Gains Tax Rate to the resulting return.
 - 7.) This will give a better picture.

E: CONSOLIDATION OF FINANCIAL STATEMENTS

- FASB 94 requires that the Financials of a Parent and those Subs that it controls must be Consolidated
- Control is assumed when the parent owns more than **50%** of the Voting stock of the Sub unless for some reason it does not retain effective control or if the control is only temporary
- Start by construing Financials of both Parent & Sub Separately. Construct Parents Financials using the EQUITY Method. Sub is constructed using standard procedure.
- To CONSOLIDATE, eliminate INTERCOMPANY ASSETS & LIABILITIES
- SEE TABLE BELOW

For Example: Parent Owns 80% of Subsidiary. Parent Only Reflects Equity Method of Accounting for Unconsolidated Affiliates.

BALANCE SHEET

	<u>Parent Only</u>	<u>Sub Only</u>	<u>Adjustments</u>	<u>Consolidated</u>
Cash	50	120		170
Receivables:				
Outside	320	20		340
INTRA	30		(30) ¹	--
Inventories	600	100		700
Investment				
Outside	800	40		840
INTRA	410		(410) ³	
Goodwill			50 ³	50 ⁴
TOTAL ASSETS	3210	780	(390)	3600
Accounts Payable				
Outside	250	100		350
INTRA		30	(30) ¹	
LTD	1350	200		1550
Minority Interest			(90) ^{2,3}	90 ⁵
CS	100	40	(40) ³	100 ⁶
PIC	300	160	(160) ³	300 ⁶
RE	1210	250	(250) ³	1210 ⁶
L+OE	3210	780	(390)	3600

1. Intercompany Receivables/Payables are Eliminated against each other.
2. Pro Rata Share of the BV of Sub's Equity (CS, PIC, RE) that is NOT Owned by the Parent: 20% of 450 = 90 is the **Minority Interest**
3. Parent's Investment in Unconsolidated Sub + Minority Interest are Eliminated Against the Equity of the Sub with the Difference being assigned to Goodwill.

Subsidiary Common Stock	40
Subsidiary Paid-in Capital	160
Subsidiary Retained Earnings	250
GOODWILL (Plug)	50
Minority Interest	90
Parent Investment in Sub	410

4. Note that Goodwill ONLY becomes Explicit on the Consolidated Balance Sheet...It does not appear on the Parent Only BS which uses the Equity Method of Accounting for Unconsolidated Affiliates
5. Note: Minority Interest is Explicit ONLY on the Consolidated Balance sheet.. It does not appear on the Parent Only BS using the Equity Method of Accounting for Unconsolidated Affiliates
6. Note: The Equity of the Consolidated Group is the same as the Equity of the Parent.

INCOME STATEMENT

	<u>Parent Only</u>	<u>Sub Only</u>	<u>Adjustments</u>	<u>Consolidated</u>
Sales to Outside	2800	1000		3800
Receipts from Sub	500		(500) ³	
TOTAL Rev	3300	1000	(500)	3800
(Cost of Goods Sold)	(1800)	(400)		(2200)
(Other Expenses)	(200)	(50)		(250)
(Payment to Parent)		(500)	(500) ³	
(Minority Interest) ¹			(10) ⁴	(10) ⁶
Pretax Income	1300	50	(10)	1340
(Tax Expense @30%)	(390)	15	(3) ⁴	402
Income from Ops.	910	35	(7)^{4,5}	938
NI from Unconsolidated Sub	23		(23) ⁵	
(Amortization of Goodwill) ²			5 ⁵	5 ⁶
NET INCOME	933	35	(35)	933⁷

1. Sometimes, Minority Interest may be shown after taxes, where it would be \$7 and placed below Tax Expense Line
2. Amortization of Goodwill is depicted as an expense that is NOT DEDUCTIBLE for Tax Purposes (in this case, but it may be tax deductible in other situations)
3. Receipts from / Payments to the subsidiary are eliminated against each other and do not appear on the Consolidated IS
4. Pro Rata share of Pre-tax income of Sub that does NOT accrue to the parent is reported as MINORITY INTEREST Expense on the Consolidated IS. Computed: 20% of \$50 = \$10
5. NI of Sub. Is Eliminated against the Net Minority Interest Expense and the NI from Unconsolidated Sub Account on the parent-only IS; excess is Allocated to the Amortization of Goodwill on the Consolidated IS statement

Subsidiary NI	35
Minority Interest(net of tax)	7
Parent's NI from Unconsolidated Sub	23
Amortization of Goodwill (PLUG)	5

6. Note: Minority Interest Expense and Amortization of Goodwill are explicitly shown only on the consolidated IS.
7. Consolidated NI of Parent = Parent only NI using the equity method.

F: OFF-BALANCE SHEET FINANCING

- Firms often try to keep reported liabilities as Low as Possible (so Interest Coverage Ratio will be high, Leverage Ratios low, and low probability of technically violating loan covenants)
- GAAP: recognize liabilities only when a Benefit Has been Received...ergo, mere promises to pay, without the transfer of some economic quid pro quo (like entering a K) are not recognized
- Examples of Off-Balance Sheet Financing
 1. *Use of Finance Affiliates*
 - Legal Entity which holds its receivables. If less than 50% owned, FASB 94 does not require Consolidation with the parent. Instead, use equity method of accounting for an unconsolidated affiliate.
 2. *Sale of Receivables with Recourse*
 - Firm can sell A/R to Factors and use proceeds from sale to reduce balance sheet debt. If this is significant, analyst might need to adjust to reverse this off-balance sheet financing
 3. *Product Financing Arrangements*
 - When a firm sells inventory to another entity with an agreement to buy it back later at a specified price, or when one firm buys inventory for another firm which agrees to buy the inventory back as needed.
 - FASB 49 requires that these must be recorded as liabilities If the Firm is REQUIRED to buy the Inventories at a Specified Price OR, the Payments to be made are such as to guarantee that the firm buying the inventory initially cannot incur a loss. Thus, even if a firm does not physically control its inventory, it may be treated as though it has control over that inventory when it enters a contract to purchase it back from a conduit purchaser.
 4. *R&D Financing Arrangement*
 - Firms may set up separate research firms in which they are the general partner, while outside limited partners provide the financing for research.
 - FASB 68 states that must set up liability account when the SPONSOR is obligated to repay any of the funds provided by the limited partners, regardless of the outcome of the research OR if the Sponsoring firms bears the risk of the failure in the research
 5. *Take-or-Pay or Throughput Contracts*
 - A Contract in which 1 firm agrees to make specified periodic payments to another firm for a product (take-or-pay) or for transportation or processing services (throughput). Often done through a joint venture.
 - FASB 47 requires such ventures be disclosed but no explicit assets or debt from the joint venture need be placed on the BS of the Joint Venturers.
 - NEED TO TAKE THE PRESENT VALUE OF THE FUTURE CONTRACTUAL COMMITMENTS (from the footnotes). Both an Asset and a Liability (split between current & long-term)
 6. *Commodity-linked Bonds*
 - Natural Resource Firms can finance inventory purchases with debt whose interest and/or principal payments are indexed to the price of a commodity. If the price of the underlying commodity rises, will have to pay higher interest/principal, but that would be offset by the rise in the value of the natural resources in their inventory.
 7. *Operating Leases*
 - Op. Lease requires only that RENTAL Expenses be reported on the Income statement. Since future obligations and the right to use the equipment are not reported, could be construed as off-BS financing. OP Leases are disclosed in Footnotes. Could be construed like Take-or-pay, where go back and re-figure the present value of the lease and impact on financials.
 8. *Joint Ventures*
 - If 50% ownership, use equity method, and Net Investment will be shown on BS, the debt of the affiliate won't be on parent BS. Instead, analyst may Consolidate to get better view.

G: ACCOUNTING FOR DERIVATIVES

- Derivatives have some characteristics of marketable securities, while others are more like private placements. Thus, applying FASB 115 may or may not be appropriate.
- If Derivative is used for TRADING/SPECULATING, it should be accounted for using Mark-to-Market rules similar to FASB 115. But, if used for Purposes OTHER THAN TRADING (HEDGING), then special Rules FASB 80-non-currency hedges, FASB 52-Currency Hedges, FASB 119-DISCLOSURE
- FASB 80: to be Hedging, the item being hedged must expose the firm to Interest Rate or Price Risk & the hedging instrument must reduce this exposure to risk.
- How to do it?????
- **Disclosure: FASB 119:** there are 4 types of RISK
 1. *Market Risk:* probability that the FMV of the derivative might change
 2. *Credit Risk;* Risk the counterparty will default on its obligations
 3. *Liquidity Risk:* possibility that the contract cannot be closed out quickly prior to settlement
 4. *Operational Risk:* possibility that larger than expected losses could be incurred due to the derivatives sensitivity to interest rates, currency rates, or other market conditions and the improper understanding of market conditions or events

REQUIRED DISCLOSURES

1. *Description:* of derivative being used, its purpose, the strategy & how the strategy is to work
2. *Description of Value Measurement:* of the derivative
3. *If use for Anticipated Transaction Hedges, Describe the hedge*
4. ??

ANALYSIS OF SEGMENTED DATA

- FASB 131 requires companies to footnote their financials disclosing the following items by business segment on a quarterly basis:
 - Sales
 - Operating Profit
 - Identifiable Assets
 - Depreciation, depletion, and amortization expense
 - Cap Ex
- Business Segment is defined as a component of the enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker.
- **SEGMENT MUST BE REPORTED SEPARATELY** if ANY of the following conditions exist:
 1. Segment revenues equal or exceed **10%** of the total revenues of all segments
 2. Segment Operating Profits equal or exceed **10%** of combined operating profits
 3. Segment losses equal or exceed **10%** of the combined operating losses of all segments with losses.
 4. Segment Identifiable assets equal or exceed **10%** of the identifiable assets of all segments combined.
- For MNCs, the following must be disclosed by Geographic Region:
 - Sales
 - Operating Profit
 - Identifiable Assets

A Geographic Segment **MUST** be disclosed if it exceeds **10%** of either:
Total Company Sales to Unaffected Customers; or
Total Company Assets

H: ACCOUNTING FOR BUSINESS COMBINATIONS

- **APB 16**; when 1 firm seeks to obtain control over the net assets of another, there are several ways to legally obtain control: merger, consolidation, tender, etc. From an Accounting perspective, business combinations occur in 1 of 2 ways: **Acquisition of NET ASSETS or EQUITY (Stock) Acquisition**
1. **Acquisition of Net Assets**
 - Some/All assets & liabilities are directly acquired by another firm. The acquired net assets are then folded into the operations of the acquiring firm
 - A Statutory **Merger** occurs when **ALL** of the net assets of one firm are acquired by another firm. Only **ONE** Firm Survives as a Legal Entity. The acquired firm may continue as a division of the acquirer, but it ceases to exist as a legal entity.
 - If the Assets/Liabilities are Joined together, & both firms are dissolved and then resurrected as a new Entity, it is called a **Consolidation**
 - If the Acquirer gets all the net assets, but the acquired firm does not dissolve, then it is a mere **Corporate Shell**
 - **LEGALLY**, mergers are easier to effectuate than consolidations because there is no need to legally form a new corporation and retitle the net assets of the prior entities into the name of the new entity.
 - **DISADVANTAGE**: usually require approval of a **SUPER MAJORITY** of the S/H of **BOTH FIRMS**
 2. **Equity (Stock) Acquisitions**
 - One firm acquires control of more than 50% of the voting common stock of another firm. Both firms continue as separate legal entities, producing their own independent set of financial statements. But, in accordance with FASB 94, the Parent must first produce a set of **CONSOLIDATED FINANCIAL STATEMENTS** that depicts the operation of the combined entity.
 - All the Acquiring Firm need to is purchase the common shares of the target company in the open market or make the offer to buy the shares directly from its shareholders. A **TENDER** offer is a public offer to buy the shares of a company, usually at a stated price.
- **3 Types of Business Combinations**
 1. **Horizontal Combinations**: involve 2 firms that produce essentially the same product line
 2. **Vertical Combinations**: involve 2 firms whose businesses involve different steps in the production process of an end product
 3. **Conglomerate Combinations**: involve firms that are in entirely different businesses.
 - **Other Types of Business Takeovers**
 1. **Proxy Contests**: 1 group attempts to gain control of the board of directors of a company
 2. **LBOs**: an acquisition financed with substantial debt, usually backed by the assets of the target
 3. **MBOs**: acquisition of a firm by its managers from existing shareholders.
 - **ACCOUNTING for Acquisition of NET ASSETS** is pretty simple. Transferred to the Acquiring firm.
 - **ACCOUNTING for Acquisition of EQUITY (Stock)** is more complex. **2 Methods**
 - Purchase**
 - Pooling of Interests**
- SEE THE FOLLOWING EXAMPLES

PURCHASE FOR CASH → NET ASSET ACQUISITION

Pre-Acquisition, 2 Firms: XYZ & PQ

	<u>XYZ</u>	<u>PQ</u>
Cash	3500	500
A/R	8200	1000
Inventories	10000	2000
Other Current Assets	300	400
Plant & Equipment	45000	4000
Other LTA	1000	700
Goodwill	1050	100
TOTAL ASSETS	69050	8700
A/P	700	450
Other Current Liab.	600	50
LTD	24000	6500
Deferred Tax Liab.	500	150
CS	8400	200
PIC	13700	800
RE	21150	550
Total Liab. & Cap.	69050	8700

Now, if XYZ purchases 100% of the NET ASSETS of PQ for \$3,300 in Cash. The gains from the sale are **fully taxable** to the owners of PQ. Post-acquisition, the Net Assets of PQ will be combined with those of XYZ, PQ will cease to exist as a separate legal entity and XYZ will be the sole surviving company. USING THE PURCHASE METHOD to account for this

	<u>BV_{XYZ} Pre-Merger</u>	<u>BV_{PQ} Pre-Merger</u>	<u>Appraised FMV_{PQ}¹</u>	<u>Adjustments</u>	<u>Final Value_{XYZ}⁸</u>
Cash	3500	500	500	(3300) ⁵	700
A/R	8200	1000	1000		9200
Inventories	10000	2000	2500		12500
Other CA	300	400	350		650
Plant & Equipment	45000	4000	5000		50000
Other LTA	1000	700	600		1600
Goodwill	1050	100	- ²	250 ⁶	1300 ⁶
Total Assets	69050	8700	9950	(3050)	75950
A/P	700	450	450		1150
Other C.L.	600	50	40		640
LTD	24000	6500	6260		30260
Def. Tax	500	150	150 ³		650
CS (\$2 par)	8400	200			8400 ⁷
PIC	13700	800	3050 ⁴	(3050) ⁷	13700 ⁷
RE	21150	550			21150 ⁷
Total Liab & Cap.	69050	8700	9950	(3050)	75950

- APB 16 provides guidelines for FMV. CASH – Stated Value; MARKETABLE SEC – Net Realizable Value if Sold on Open Market; A/R – PV of amounts to be received – allowance; INVENTORY – Selling price of goods when finished – CGS; P&E – Replacement Cost
- Goodwill are assumed to have NO FMV except as confirmed by the purchase price paid for the acquired net assets for net asset acquisitions.
- Since fully taxable acquisition, FMV of Def. Tax is assumed to equal the Def. Tax currently carried by the ACQUIRED FIRM
- NET Worth of the ACQUIRED FIRM (PQ) measured at FMV is: (PLUG, not from BS)

ACQUIRED TOTAL ASSETS (FMV)	9950
<u>(ACQUIRED TOTAL LIABILITIES)(FMV)</u>	<u>6900</u>
ACQUIRED NET WORTH	3050
- Cash Paid to Owners of Acquired Firm + DIRECT Acquisition Expenses (appraisers, accountants, atty's)
- New Goodwill arising from the acquisition is the difference between the cost of the acquisition & the FMV of the Net Assets Acquired.

NET ASSETS ACQUIRED (MV)	3050
NEW GOODWILL (PLUG)	250
CASH (paid for Acquisition)	3300
- Acquired Company ceases to legally exist, thus its NET WORTH (at Market Value) is Eliminated. Thus, the NET WORTH of the Survivor is the same as it was before the acquisition.
- Combine the net assets into the parent, eliminate any intercompany assets or liabilities out of the consolidation FASB 94.

PURCHASE FOR STOCK (Net Asset Acquisition)

XYZ purchases 100% of PQ, as in the previous example, by ISSUING to PQ 132 SHARES of XYZ Common Stock.

PRE-ACQUISITION

Shares Outstanding	4200 shares
Par Value	\$2/share
BV Share	\$10.30 → (8400+13700+21150 / 4200) → (CS + PIC + RE / SO)
MV Share	\$25.00

This acquisition is a NONTAXABLE Exchange so that the portion of the net assets that reflect a write-up will NOT be depreciated or amortized for tax purposes, though they will be expensed for financial reporting purposes. Tax Rate for XYZ is 30%. Post-acquisition, PQ will cease to exist as a separate entity and XYZ will be the sole surviving firm. USING THE

PURCHASE METHOD of ACCOUNTING

	<u>BV_{XYZ Pre-Merger}</u>	<u>BV_{PQ Pre-Merger}</u>	<u>Appraised FMV_{PQ}</u>	<u>Adjustments</u>	<u>Final Value_{XYZ}</u>
Cash	3500	500	500		4000
A/R	8200	1000	1000		9200
Inventories	10000	2000	2500		12500
Other CA	300	400	350		650
Plant & Equipment	45000	4000	5000		50000
Other LTA	1000	700	600		1600
Goodwill	1050	100	--	775 ³	1825 ³
Total Assets	69050	8700	9950	775	79775
A/P	700	450	450		1150
Other C.L.	600	50	40		640
LTD	24000	6500	6260		30260
Def. Tax	500	150	150	525 ²	1175 ²
CS (\$2 par)	8400	200		264 ¹	8664 ¹
PIC	13700	800	3050	3036 ¹	16736 ¹
RE	21150	550		(3050) ³	21150 ³
Total Liab & Cap.	69050	8700	9950	775	79775

- MV of NEW SHARES issued to effectuate the acquisition of the NET ASSETS is 3300. This is the Cost of the ACQUISITION: 132 Shares * 25 (market value) = 3300. With the issuance of the new shares:

CS (132shares * \$2 par)	264
Paid in Capital (3300-264)	3036
Market Value New Shares	3300

	<u>Initial XYZ</u>	+	<u>Adjustment for New Shares</u>	=	<u>Ending XYZ</u>
Common Stock	8400		264		8664
Paid in Capital	13700		3036		16736

- Because the Acquisition is a NONTAXABLE EXCHANGE, XYZ CANNOT use the Higher Depreciation & amortization expenses associated with the writing up of the net assets acquired to their fair market values. BUT for Financial Reporting Purposes, these write-ups will produce HIGHER REPORTED EXPENSES in the future. This Gives rise to TIMING Differences.

$$\text{Def. Tax Liab.}_{\text{New Additional}} = (t)(\text{FMV}_{\text{equity}} - \text{BV}_{\text{equity}}) = (.3)(3300-1550) = 525$$

$$\text{Def. Tax Liab.}_{\text{Final XYZ}} = \text{Def. Tax Liab.}_{\text{Initial XYZ}} + \text{Def. Tax Liab.}_{\text{Initial PQ}} + \text{Def. Tax Liab.}_{\text{New Additional Adjustment}}$$

- The NEW GOODWILL ARISING FROM THE TRANSACTION can be viewed in 3 ways

Journal Entries to Record the Purchase & Payment of the Net Assets

Go through Each at MV & then PLUG for Goodwill

Excess of Cost over FMV of Net Assets Acquired

Cost of Acquisition	3300 (132 shares * 25)
Net Assets Acquired (incl. Def Tax)	(2525) (MV)
New Goodwill	775

Excess Acquisition Cost over FMV Net Assets Acquired Adjusted for the New Deferred Tax Liabilities

Net Assets Acquired (MV)	3050
New Goodwill (PLUG)	775
New Def. Tax. Liab.	525
CS (from new shares)	264
PIC (from new shares)	3036

NOTE: Initial Goodwill + New Goodwill from Acquisition = Ending Goodwill

POOLING – OF – INTEREST METHOD. To use it, must MEET ALL of the following Conditions

1. One Company in the Deal MUST Acquire **at least 90%** of the voting (common) stock in the other & the merger is effectuated SOLELY by the exchange of stock (nothing else, like debt, cash, etc. may be used). **EQUITY ONLY.**
2. Merger is effectuated in a **SINGLE TRANSACTION.**
3. Neither firm owned more than **10%** of the voting stock of the other BEFORE THE MERGER
4. No Contingency Shares involved in the Merger
5. Merged firm will NOT dispose of a Significant portion of assets of the acquired company within 2 years of the merger (except to reduce duplication)
6. Neither firm has been a subsidiary or division of the other for 2 years prior to the merger
7. There is NO buyback of shares above normal limits
8. Ratio of the interest of the individual common shareholders to those of the other common shareholders in the combined firm remains approximately the same result as a of the merger
9. Voting rights of shareholders are not restricted
10. No agreement to retire or re-acquire stock used to effect the merger
11. No financial arrangement which benefits former shareholders, such as loans secured by newly issued shares
12. Dividend distributions must be no greater than normal for the 2 years prior to the merger.

If all conditions are met, Pooling-of-Interest MUST be used; else Purchase Method is to be used

For Example: Assume Parent Acquires 95% of Subsidiary for 500 shares of Stock. There is to be NO Restatement of the Acquired firm's assets & liabilities to their FMV when Pooling-of-Interest is used. Instead, consolidate on Book Value Basis.

	<u>Parent</u>	<u>Subsidiary</u>	<u>Consolidation</u>
Current Assets	10000	1000	11000
Fixed Assets	80000	5000	85000
Total Assets	90000	6000	96000
Current Liab.	5000	1000	6000
LTD	10000	2000	12000
(Minority Interest)			150 ¹
CS	10000	1000	12500 ²
PIC	20000	1000	19350 ³ -plug
RE	45000	1000	46000 ⁴
Total Liab. + Cap.	90000	6000	96000
PV CS	5	1	
MV CS	20	10	

1. Minority Interest is the 5% of BOOK VALUE of the Sub's Net Worth that was NOT ACQUIRED by the Parent (5% of 3000 is \$150)
2. Parent Issues 500 Shares of \$5 Par to effectuate the merger. Thus, its CS MUST Increase by 2500 (\$5*2500shares) from \$10,000 to \$12,500.
3. PIC is the **PLUG** that forces the Balance Sheet to Balance
4. RE of both are added together because Pooling treats the firms as if they were always merged together. Ergo, after the merger, ALL PAST CONSOLIDATED Financial of the Combined firm must be RESTATED to Reflect how they would have looked were they always merged together

NOTE: There is NO GOODWILL or RESTATEMENT of Assets/Liabilities to FMV in Pooling as is done with PURCHASE
 NOTE: Must also adjust out any intercompany investments, receivables, or debts.

▪ **EFFECTS of Purchase & Pooling**

- Whichever method is used will have a PROFOUND affect on the APPEARANCE of financial statements that can be deceptive to the readers of financial statements.
- When use PURCHASE, BV/NW of the merged company is usually higher than pooling. THE MORE THE Parent pays above FMV for the sub, the stronger the Balance Sheet of the Parent will appear (since Goodwill is an ASSET)
- POOLING tends to Overstate Earnings because of Bootstrapping which omits Goodwill
- PURCHASE: prior year financials are NOT restated, POOLING: priors are Restated → This means the growth rate of earnings will be impacted by pooling but not Purchase
- PURCHASE: impacts future earnings via Goodwill Expense. But POOLING, impact past earnings via Restatement of past
- Financial Ratios will be impacted by whichever form is used.

- 1 Way to Negate this is through CASH FLOW ANALYSIS. Pretax CF will be unaffected by method.
- **Factors Affecting Choice of Method**
 - PRO PURCHASE METHOD
 - Purchase Price < BV of Acquired Firm. Enhance Earnings
 - Low D:E and High Current Ratios are desirable if need to issue debt.
 - Acquiring firm does not want to issue large amounts of stock to new s/h who dilute current management control.
 - Acquired firm has lots of low-cost productive assets that, when written up, will generate larger tax deductible expenses without affecting cash flow.
 - Acquired firm has large unfunded pension liabilities not carried on its balance sheet that must be recognized after a purchase occurs. As written down over time, may result in higher earnings, but unaffected Cash Flow
 - PRO POOLING-OF-INTEREST METHOD
 - Purchase Price > BV of Acquired Firm. Large of Goodwill, whose amortization would reduce future earnings. Since goodwill not recognized under pooling, earnings enhanced.
 - Debt covenants restrict dividend payments to %RE. Pooling increases reported NI, ergo RE.
 - P/E ratio of acquired firm is substantially below that of the Acquiring Firm. Produces Bootstrapping that can enhance reported earnings & growth.
 - Acquiring Firm does not want to use debt or cash to finance the transaction
 - Acquired firm has Saleable assets whose cost basis are well below market value. When pooling used, retain low-cost basis, & if sold, produce substantial gains, enhancing future income of acquirer
 - Acquired firm's productive assets are relatively new with BV approx. MV
- **Factors Affecting Purchase Price of Acquisition**
 1. *Accounting Method that will be used to Account for the Merger.* PURCHASES are generally taxable, while poolings are NOT TAXABLE. Selling S/H may demand higher prices for taxable sales under Purchase as opposed to Pooling.
 2. *Percentage of the Acquired Firm that is to be Bought.* Control is worth a Premium Price.
 3. *Amount of Free Cash Flow that the Acquired firm should generate.* Firms with lots of cash tend to be sold at a premium price.
 4. *Size of the Target relative to Acquiring firm.* Premium tends to be lower when the acquired firm is large, relative to the acquiring firm.
 5. *Q-Ratio.* Firms with low Q-ratios (MV/Asset Value) tend to be viewed as bargains.
 6. *Target Management Capability.* Firms with Weak Management tend to be takeover targets.
 7. *Acquiring Management's Ability.* Well-managed firms do not tend to overpay for their acquisitions.
- **Push-down Accounting**
 - Push-down accounting occurs when a purchased firm continues to publish its own financial statements separately from its parent. Might occur when there are lots of minority shareholders in the subsidiary. When used, the financials of the sub reflect the Purchase Accounting Adjustments that were made when it was purchased.
 - ????

I: STATEMENT OF CASH FLOWS

- **FASB 95** is the Authoritative Standard on the Statement of Cash Flows.
- Cash flow is defined to be the Receipt or payment of cash or cash equivalents, and requires that a summary of the transactions that give rise to such exchanges be classified, summarized, and reconciled with the change in cash and cash equivalents that is shown to have taken place during an accounting period on the balance sheet.
- Cash Flows **MUST** be classified into 1 of 3 Categories
 - 1. Investing Activities**
 - Purchase/Sale of any Long Term Assets
 - Purchase/Sale of Other Assets deemed to be Investments by Management
 - Making/Collection of Loans other than Trade Credit (A/R) made by the firm to other entities
 - 2. Financing Activities**
 - Issuance/Repayment of Negotiated Debt Principal Incurred by the Co. (non-trade credit)
 - Issuance/Repurchase of Equity Capital (CS, PS, etc.)
 - Payment (Common or Preferred) of Dividend (NOT RECEIPT of Div., which are Operating)
 - 3. Operating Activities**
 - Any Other Cash Flow (non-Investing & non-Financing)

PREPARING A STATEMENT OF CASH FLOWS: 2 METHODS (Direct & Indirect)

- **DIRECT METHOD**
 - Done by taking every transaction that occurs and categorizing how it impacts cash flow
 - *For Example; Say a Firm Engaged in the Following Transactions: (Category)*
 1. Sold Shares of Stock for \$450 (F)
 2. Borrowed \$80 from Bank (F)
 3. Repaid \$100 of Bonded Debt (F)
 4. Sold \$250 of Marketable Securities that are considered to be Cash Equivalents (NEITHER)
 5. Sold \$550 of equipment (I)
 6. Purchased \$1,000 of Fixed Assets (I)
 7. Made an Acquisition for \$350 (I)
 8. Purchased \$10 of LTA (I)
 9. Purchased \$2,190 of Inventory, all on trade credit from vendors (NEITHER)
 10. Paid \$125 interest expense with cash (O)
 11. Paid \$375 in general expenses with cash (O)
 12. Sold products for \$3,650, of which \$1,800 was on credit (O-\$1,850 worth)
 13. Paid \$2,210 to vendors for previously purchased inventories & other supplies (O)
 14. Paid \$10 in advance for services to be rendered by suppliers (O)
 15. Recorded \$270 of income expenses, of which \$60 was deferred & \$210 paid (O - \$210)
 16. Collected \$1,750 from Customer Receivables Outstanding (O)
 17. Recorded \$360 Depreciation & Amortization Expenses (NEITHER)
 18. Recorded \$150 of Income from an Unconsolidated Affiliate using Equity Method (NEITHER)
 19. Repurchased Treasury Shares for \$10 (F)
 20. Received \$30 as a Cash Dividend from an Unconsolidated Affiliate (O)
 21. Paid \$320 cash dividend to shareholders (F)

STATEMENT OF CASH FLOWS	
Cash Collected from Customers (Sales + Collection of A/R)	3600
Cash Collected from Affiliates (Dividend Received from Affiliate)	30
(Cash Paid to Suppliers)	(2595)
(Cash Interest Paid)	(125)
(Cash Paid in Taxes)	(210)
Cash Generated from Operations	700
Cash Received from Asset Sales	550
(CAP EX)	(1000)
(Investments)	(350)
(Cash Paid to purchase other LTA)	(10)
Cash Generated from Investing	(810)
Cash Proceeds from Selling Shares	450
Proceeds from Bank Loans	80
(Repayment of Debt Principal)	(100)
(Repurchase of Treasury Shares)	(10)
(Cash Dividends Paid)	(320)
Cash Generated from Financing	100
Net Change in Cash & Equivalents	(10)

NOTE: when using the direct method, some important transactions might not get recorded because they do not impact cash. For Example, if purchase \$5,000,000 of equipment with a Long-Term Note, won't show up on the statement of cash flows because does not impact cash. BUT FASB 95 REQUIRES such debt-financed capital must be disclosed in a footnote to the statement of cash flows if they are SIGNIFICANT. Then, the ANALYST could plug the \$5,000,000 into the Investing & Financing Cash Flow things.

▪ **INDIRECT METHOD**

- Constructs a Statement of Cash Flows by using information presented on the Balance Sheet & Income Statement instead of developing it transaction x transaction basis from journal entries.

BALANCE SHEET

	<u>19X1</u>	<u>19X2</u>		<u>19X1</u>	<u>19X2</u>
Cash	10	20	A/P	250	230
Marketable Sec.	70	50	Bank Loans	400	480
Net Receivables	200	250	Current Liab.	650	710
Inventories	1050	1090	LTD	1000	900
Prepaid Expenses	20	30	Def. Tax Liab.	400	460
Current Assets	1350	1440	Pref. Stock	150	150
Gross P&E	5900	6400	CS	200	230
(Acc. Depr.)	(2500)	(2700)	PIC	800	1220
Net P & E	3400	3700	RE	3140	3490
Investments	1300	1700	(Treas. Stock)	(40)	50
Goodwill	150	160	Total Liab. & Capital	6300	7110
Other Assets	100	110			
TOTAL ASSETS	6300	7110			

INCOME STATEMENT

	<u>19X1</u>	<u>19X2</u>
Sales	3000	3800
(CGS)	(1800)	(2150)
(Depreciation)	(250)	(300)
(Amortization of Goodwill)	(50)	(60)
(Interest Expense)	(100)	(125)
(Other Expense)	(300)	(375)
NI from Affiliate (equity)	100	150
Pre-tax Income	600	940
(Income Tax Expense)	170	270
Net Income	430	670

1st: Construct a Sources & Uses Worksheet

NOTE: **SOURCES** = Decrease in Assets or Increase in Liability/Equity

USES = Increase in Assets or Decrease or Liability/Equity

<u>SOURCES</u>		<u>USES</u>	
Decrease in Marketable Securities	20	Increase in Cash	10
Increase in Bank Loans	80	Increase in Receivables	50
Increase in Deferred Tax Liabilities	60	Increase in Inventories	40
Increase in Common Stock	30	Increase in Prepaid Expenses	10
Increase in Paid in Capital	420	Increase in Net Plant & Equipment	300
Increase in Retained Earnings	350	Increase in Investments	400
Total Sources of Funds	960	Increase in Goodwill	10
		Increase in Other Assets	10
		Decrease in Accounts Payable	20
		Decrease in Long Term Debt	100
		Increase in Treasury Stock	10
		Total Uses of Funds	960

2nd: Make Adjustments

SOURCE

USE

A. Amend Δ Retained Earnings with Net Income – Dividends (which is the equivalent)

Increase in Retained Earnings	350		
Net Income	670	Dividends	320

B. Amend Net Property Plant & Equipment

Beginning Net P & E	3400	Proceeds from Sale of Equip.	550
Cap Ex	1000	(BV Equip. Sold)	400
(Depr)	(300)	Profit from Sale	150
(BV Equip. Sold)	PLUG		
Ending Net P & E	3700		

1. Replace Net P & E

		Increase to Net P&E	300
Depreciation	300	Cap Ex	1000
BV of Equipment Sold	400		

2. Change net income (which comprises the asset sale)

BV Equipment Sold	400
Net Income	670
Proceeds from Sale of Equipment	550
Net Operating Income	520

C. Amend Investment & Goodwill

Beginning Investments	1300
Beginning Goodwill	150
Acquisitions (incl. Goodwill)	350
NI from Affiliate (equity)	150
(Amortization Goodwill)	(60)
(Disposition of Invest @ BV)	(0)
(Div. Received from Aff-equity)	PLUG (30)
Ending Investment & Goodwill	1860

Amortization of Goodwill	60	Increase in Investments	400
Dividends from Affiliates	30	Increase in Goodwill	10
		Acquisition of Aff.	350
		Equity in NI of Aff.	150

D. Trivial Adjustments

- Increase in CS + Increase in PIC becomes PROCEEDS FROM SALE OF STOCK
- Increase in Bank Loans becomes PROCEEDS FROM BANK LOANS
- Decrease in LTD becomes REPAYMENT of LTD
- Increase in Treasury Stock becomes PURCHASE of TREASURY STOCK

3rd: Amend the Sources Uses Work Sheet (Get Rid of Marketable Securities & Cash Accounts, then the prior Amendments)

SOURCES		USES	
Proceeds from Bank Loans (F)	80	Increase in Receivables (O)	50
Increase in Deferred Tax Liabilities (O)	60	Increase in Inventories (O)	40
Proceeds from Sale of Stock (F)	450	Increase in Prepaid Expenses (O)	10
Net Operating Income (O)	520	Capital Expenditures (I)	1000
Proceeds from Sale of Equipment (I)	550	Acquisitions (I)	350
Depreciation (O)	300	Net Income from Affiliates (equity) (O)	150
Amortization of Goodwill (O)	60	Increase in Other LTA (I)	10
Dividend from Affiliates (equity) (O)	30	Decrease in A/P (O)	20
Total Sources of Funds	2070	Repayment of LTD (F)	100
		Purchase of Treasury Stock (F)	10
		Dividends Paid (F)	320
		Total Uses of Funds	2070

4th: Classify the Sources & Uses Worksheet Amongst the 3 (operating, investing, & financing activities)

Operating	Investing	Financing	→ go back and try to organize it to wind up with these amounts
\$700	(\$810)	\$100	Net (\$10)

HOWEVER, this method is LONG & Cumbersome, though theoretically correct

But under time constraints, may want to try the **2 Minute Drill**

Operating	Investing	Financing
Net Income	Proceeds from the sale of Investment Assets	Proceeds from Negotiated Borrowings
Depreciation, Amortization, Other Non-Cash Expenses	Proceeds from the Receipt of Principal on Negotiated Loans extended to Others	Proceeds from the Issuance of PS or CS + PIC
Increase in Deferred Tax Liabilities	(Capital Expenditures)	(Repayment of Principal on Negotiated Debt)
Dividends from Affiliate	(Purchase Cost of Acquisitions)	(Repurchase of Equity Capital)
Increase in Payables, accruals & other non-negotiated liabilities	(Principal on Negotiated Loans extended to others)	Dividends Paid (preferred or common)
(Increase in Receivables)	(Increase in Other LTA not included elsewhere)	
(Increase in Inventories)		
(Increase in prepaid expenses & other working assets)		
(Income from Affiliates included in Net Income)		
(Gains on Sale of Invested Assets included in Net Income)		
(Unrecognized gains from changes in foreign exchange rates affecting non-cash items included in net income)		

GAINS/LOSSES on Foreign Currency Denominated Transactions

- Generally FASB 115 can be used to account for transactions involving foreign currencies
 - REALIZED foreign currency gains/losses are included in the ordinary income for the accounting period in which the item was liquidated. Generally result in cash flows. Generally reported as other income.
 - UNREALIZED foreign exchange gains/losses on short term “trading” assets or liabilities are reported on the income statement. But if the gains/losses related to changes in the reported value of negotiated debt, they are reported as interest income/expense
 - When construct Statement of Cash Flows, Foreign Currency Adjustment is treated like a NON-CASH EXPENSE

FREE CASH FLOW

$$FCF_{\text{available for investors}} = \text{Operating CF} + \text{Cash Interest Expense} + \text{Investing Cash Flow} - \Delta \text{Cash}$$

$$FCF_{\text{paid to investors}} = \text{Cash Interest Expense} - \text{Financing Cash Flow}$$

1st Definition: FCF available for investors

	Financing Cash Flow (FASB 95)	FCF
Cash Generated from OPERATIONS	700	700
Cash Interest Payments	--	125
Cash Generated from Sale of Assets	550	550
(Cash Paid for Cap Ex)	(1360)	
Cash Generated from INVESTMENTS	(810)	(810)
Increase in Cash same as Δ cash	10	10
Cash from Financing	(100)	
FCF_{available for investors}		25

$$FCF = \text{EBIT} (1 - t_{\text{effective}}) + \text{DEPR}_{\& \text{ other non-cash expenses}} - \Delta \text{NWA} - \text{CAPEX} + (t_{\text{effective}})(\text{Int. Exp.})$$

$$FCF = FCF^* + (t_{\text{effective}})(\text{Int. Exp.})$$

$$FCF^* = \text{EBIT} (1 - t_{\text{effective}}) + \text{DEPR}_{\& \text{ other non-cash expenses}} - \Delta \text{NWA} - \text{CAPEX}$$

EBIT = Pretax Income + Interest Expense

DEPR = Depreciation + Amortization of Goodwill + BV of Equipment Sold + Income from Affiliate not received in cash (Income – Dividends from Affiliate)

Δ NWA = Δ Net Receivables + Δ Inventory + Δ cash & equivalent + Δ pre-paid expense – Δ A/P – Δ Def. Liab.

CAPEX = CapEx + Acquisition + Increase in other LTA

Analytical Comments

1. IS measures Profitability while SCF measures Liquidity & Solvency
2. SCF is less subject to distortion by acct. tricks than IS because it measures exchanges of cash which are objective events.
3. CF from Operations and FCF is the result of a complex analysis.
4. A firm's only real operating source of cash is Sales. The other adjustments (Depr. Et al are just non-cash adjustments)
5. Weak Cash flow affect both bad firms & strong, but quickly growing firms.
6. Increases in NWA are ambiguous, good or bad.
7. Growth firms often have strong earnings but weak cash flows

J: FINANCIAL FORECASTING

- Often, will be given previous 5 years or so BS & IS & SCF of a firm. Chore is to construct a Pro Forma BS & IS.

1st: Generate a Pro-Forma Income Statement

Sales. Can usually use a TREND ANALYSIS, or Historical average of market share

CGS; use % Sales

Depreciation: Historical % of Past years PPE

Interest Expense: Historical % of past year's debt

Other Expense; Historical % Sales

EBT – Solve

Tax: Historical % EBT (or prediction of future Δ tax law)

Net Income: Solve

2nd: Develop a Pro-Forma Balance Sheet

Cash: Plug in Later

A/R: Historical % Sales

Inventory: Historical % Sales or CGS

PPE: Past year's PPE + CAP EX – Depr.

Total Assets = L + OE

A/P: Historical % Sales or CGS

Bank Loans: Same as Past year's (or a given Δ assumption)

LTD: Same as Past year's (or a given Δ assumption)

CS: Same as Past year's (or a given Δ assumption)

PIC: Same as Past year's (or a given Δ assumption)

RE: Past year's RE + NI – Div (or a given Δ assumption)

Total Liabilities & Equity: Solve

3rd: Analyze the Cash

Pro Forma Cash

(Required Cash) \rightarrow Historical % Sales

Excess or Needed Cash

4th: Construct a SCF using the Indirect Method

Cash Budgeting

- Usually prepared by treasurer's department. Consists of projections of the expected daily cash flow into and out of a company and a cumulative total of daily cash balances.

Steps to Financial Planning

1. Determine Overall Corporate Strategy
2. Determine the Specific Requirements Needed to Effectuate the Strategy
3. Formulate Operating & Capital Budgets

K: INFLATION ACCOUNTING

4 Ways to Construct Financial Statements during Inflation

1. Historical Cost/Nominal Dollar Measurement – GAAP accounting
2. Historical Cost/Constant Dollar Measurement – GENERAL PRICE LEVEL ADJUSTED Accounting. Uses Constant Units of Purchasing Power as the standard of value in measuring revenues, costs, assets and liabilities. Prior year's data are adjusted to reflect past costs measured in units of constant purchasing power indexed to a current year value of 100.
3. Current Cost/Nominal Dollar Measurement – CURRENT COST ACCOUNTING. Records items on BS at actual MV in current dollars each year. Allocates costs on basis of current MV of assets.
4. Current Cost/Constant Dollar Measurement – A & L recorded at MV, but measured through time in units of constant purchasing power indexed so that current year's dollar is 100.

Current Cost v Historical Cost Accounting: 2 Concepts Used to Measure Profit

- A. **Financial Capital Maintenance** → Profit = Revenues Received – Dollars of Expense Incurred (GAAP)
- B. **Physical Capital Maintenance** → Profit = Revenues Generated – Costs required to restore inventories & capital equipment (CURRENT COST)

L: ACCOUNTING FOR FOREIGN OPERATIONS, et. al.

FASB 52

Reporting Currency: Used in the ultimate Financial Statements. Usually the \$ for most US firms

Functional Currency: Currency in which results of a FOREIGN Subsidiary are measured. Functional currency is based upon the operating environment. Should be chosen to reflect that currency in which the foreign subsidiary carries on most of its economic activities.

Local Currency: Any NON-FUNCTIONAL Currency in which a Foreign Subsidiary conducts a transaction.

REMEASUREMENT: Converting from LOCAL → FUNCTIONAL Currencies

TRANSLATION: Converting from FUNCTIONAL → REPORTING

SEQUENCE:

1. All initial transactions are recorded in the local currency in which they take place.
2. All Local Currency Transactions are then REMEASURED into the Subsidiary's FUNCTIONAL Currency → **Temporal Method**
3. The FUNCTIONAL Currency will then be TRANSLATED into the REPORTING Currency. → **All-Current Method** (unless high inflation, & then use Temporal Method)

REMEASUREMENT → TEMPORAL METHOD (OLD FASB 8) & FASB 52

Rules:

1. All MONETARY ITEMS on a BS are REMEASURED into the Functional Currency using the CURRENT EXCHANGE RATE (Cash, MS, A/R, Inv., A/P, LTD, Def Tax, Insurance)
2. All NON-MONETARY ITEMS on BS are REMEASURED into the Functional Currency using the HISTORICAL EXCHANGE RATE (Equities, Debt carried at cost, Prepaid Expenses, PPE, Intangibles)
3. SALES & EXPENSES are reported on IS and Remeasured into Functional on a Day-by-Day Basis; will usually use the Weighted Average Exchange Rate for the Period
4. DEPRECIATION & CGS are Remeasured into Functional using Exchange Rate which existed when the property being Depreciated was PURCHASED and the inventory was purchased.
5. INCOME TAX is Remeasured into functional using Exchange Rate that existed to profits were earned. Usually use the Weighted Average

TEMPORAL METHOD of REMEASUREMENT

	BS: Local		BS: Functional		Exchange Rate (Func./Local)		
	19X1	19X2	19X1	19X2	Type	19X1	19X2
Cash	5000	16000	1000	4000	Current	.20	.25
A/R	10000	15000	2000	3750	Current	.20	.25
Inventory	25000	30000	5250	6600	Historical	.21	.22
Fixed Assets	60000	54000	12600	11340	Historical	.21	.21
Total Asset	100000	115000	20850	25690			
A/P	10000	20000	2000	5000	Current	.20	.25
LTD	40000	40000	8000	10000	Current	.20	.25
CS + PIC	30000	30000	6300	6300	Historical	.21	.21
RE	20000	25000	4550	4390	PLUG	--	--
Total Liab & Cap	100000	115000	20850	25690			

	IS: Local		IS: Functional		Exchange Rate (Func./Local.)
Sales		200000		44000	Weighted -- .22
Beg. Inventory	25000		5250 (from BS)		Historical -- .21
Purchases	100000		22000		Weighted -- .22
Goods Available for Sale	125000		27250		Addition
Ending Inventory	(30000)		(6600) (from BS)		Weighted -- .22
CGS			(95000)	(20650)	Subtraction
Depreciation			(6000)	(1260)	Historical -- .21
Other Expenses			(91000)	(20020)	Weighted -- .22
Pretax Income			8000	2070	Subtraction
Tax Expense			(3000)	660	Weighted -- .22
Net Op. Inc.			5000	1410	Subtraction
Gain From Currency Translation				PLUG → (1570)	Gain = NI – NOI (in Functional)
Net Income			5000	(160)	NI = Δ RE + Dividends

Implications of the Temporal Method (if use \$ as Functional)

1. By placing Gain/Loss from Currency Translation on IS, Temporal Method of Accounting for Foreign Ops can expose the company to high volatility in NI & EPS.
2. Root Cause of Gain/Loss from Currency Translation: if hold lots of monetary assets, when exchange rates are favorable, will benefit EPS. Conversely, if hold lots of non-monetary assets, smaller degree of exposure to Foreign Currency Fluctuations' Impact on EPS. Depends on Net Position of Monetary Assets.

TRANSLATION: The Current Rate Method

- Requires ALL Assets & Liabilities on Financials which are measured in a functional currency be translated into the REPORTING Currency at the CURRENT Exchange Rate. Equity is Measured at Historical Rates and RE is determined. And then a Plug is Used. Unlike Remeasurement, Gain/Loss does not flow through the Balance Sheet, but rather is placed in the EQUITY PORTION of the BALANCE SHEET under Cumulative Foreign Exchange Translation Adjustment. Will flow through to Income Statement only when Foreign Sub. Is Liquidated

	BS: Functional		BS: Reporting		Exchange Rate (Report/Func.)		
	19X1	19X2	19X1	19X2	Type	19X1	19X2
Cash	5000	16000	1000	4000	Current	.20	.25
A/R	10000	15000	2000	3750	Current	.20	.25
Inventory	25000	30000	5000	7500	Current	.20	.25
Fixed Assets	60000	54000	12000	13500	Current	.20	.25
Total Asset	100000	115000	20000	28750			
A/P	10000	20000	2000	5000	Current	.20	.25
LTD	40000	40000	8000	10000	Current	.20	.25
CS + PIC	30000	30000	6300	6300	Historical	.21	.21
RE	20000	25000	3200	4300	RE _{X2} = RE _X + NI - Div (F/R)		
Translation Adj.			500	3150	PLUG		
Total Liab & Cap	100000	115000	20000	28750			

	IS: Functional	IS: Reporting	Exchange Rate (Report/Func)
Sales	200000	44000	Weighted -- .22
CGS	(95000)	(20900)	Weighted -- .22
Depreciation	(6000)	(1320)	Weighted -- .22
Other Expenses	(91000)	(20020)	Weighted -- .22
Pretax Income	8000	1760	Weighted -- .22
Tax Expense	(3000)	660	Weighted -- .22
Net Income	5000	1100	Weighted -- .22

Implications of Current Rate Method (choosing Foreign Currency to be Functional)

- Currency Translation's Impact falls on the EQUITY Portion of the US BS (not IS like Remeasurement). Ergo, EPS will not be as volatile, but many NET WORTH Related Ratios will be quite volatile.
- Easier for Analyst to Forecast EARNINGS because there is NO need to forecast gain/loss from translation of currency.

$$\text{Earnings}_{\text{Forecasted in Foreign Currency}} = \text{Sales}_{\text{measured in Foreign}} * \text{Profit Margin}_{\text{measured in foreign}} * \text{Weighted Exchange Rate}_{\text{forecasted}}$$
- Strong Dollar will depress earnings generated abroad, weak dollar will boost dollar reported earnings generated abroad.

REAL WORLD

- Real world is a mixture. Remeasurment (Temporal) impacts IS; Translation (All-Current) impacts BS. If a 3rd Currency is used, impacts of both occur.
- 4 POSSIBLE Incomes can be generated from Foreign Operations
 - Net Income, Temporal Method
 - Net Operating Income, Temporal Method
 - Net Income, All-Current Method
 - Δ Net Worth + Dividends, All-Current Method
- What about ECONOMIC EARNINGS:
 - Net Income, Temporal
 - Depr_{All-Current} - Depr_{Temporal}
 - CGS_{All-Current} - CGS_{Temporal}
 - Gain on Foreign Currency Translation – Amt. Due on LTD
 - Economic Earnings

SCF under FASB 52

- Construct SCF in Local Currency
- Translate SCF_{Local} into SCF_{Reporting} by using Weighted Average Exchange Rate over past year
- Must Find a PLUG called EFFECT of EXCHANGE RATES on CASH

Statement of Cash Flows Worksheet

	<u>SCF – Local</u>	<u>SCF – Reporting</u>	<u>Weighted Avg. Ex. Rate (Rep/Local)</u>
Net Income	5000	1100	.22
Depreciation	6000	1320	.22
Increase in Payables	10000	2200	.22
(Increase in Receivables)	(5000)	(1100)	.22
(Increase in Inventories)	(5000)	(1100)	.22
Cash from OPS	11000	2420	.22
Sale of Assets	--	--	.22
(CAP EX)	--	--	.22
Cash from Investing	0	0	.22
Issuance of Debt	--	--	.22
(Repayment of Debt)	--	--	.22
(Dividends)	--	--	.22
Cash from Financing	0	0	.22
Net Increase in Cash	11000	2420	.22
Δ Cash _{reporting} from BS			3000
Δ Cash _{reporting} from Worksheet			2420
PLUG: Effect of Ex Rate on Cash			580

	<u>Local Currency</u>	<u>Change in Exchange Rate</u>	<u>Impact on Reported CF</u>
Beginning Cash	5000	(.25-.20)	250
Cash from Ops	11000	(.25-.20)	330
Cash from Investing	--	(.25-.20)	--
Cash from Financing	--	(.25-.20)	--
Effect of Ex Rate on Cash Δ			580

Statement of Cash Flows

Net Income	1100
Depreciation	1320
Increase in Payables	2200
(Increase in Receivables)	1100
(Increase in Inventories)	1100
(Gains/Losses on Sale of Assets)	0
(Unrealized Foreign Currency Gains/Losses) on Noncash NI	0
Cash from Ops	2420
Sale of Assets	0
(Cap Ex)	0
(Other Investments)	0
Cash from Investment	0
Proceeds from Issuance of Debt	0
Proceeds from Sale of Equity	0
(Repayment of Debt)	0
(Repurchase of Equity)	0
(Dividends & Cash Distributions)	0
Cash from Financing	0
Effect of Exchange Rate Δ on Cash	580
Increase in Cash	3000

M: INTERNATIONAL ACCOUNTING PRACTICES

British-American Model

- Designed primarily to disclose the assets, liabilities, capital, & operating performance of companies in ways that the general public can understand and use to form meaningful opinions about a firm's profitability.

European/Asian Model

- Historically, financing of business was supplied by institutions such as banks and insurance firms (who provided the money) while the sweat equity came from the other equity owners. Really, more of a creditor relationship and more concerned with ability of the firms to pay back the money as opposed to the Fair Market Value of the firms. Use incredibly conservative accounting systems. Understate earnings and other important factors.

Hyperinflation (Latin American) Model

- Historical Cost accounting is rendered meaningless by inflation. Try to use general price level adjusted accounting.

Differences in International Accounting Methods

1. *Historical Cost v Inflation Adjusted Accounting.* Historical is used by most of the world except for Latin America.
2. *Accounting for Construction Projects.* In Western Hemisphere, % of Completion method is used; on the Continent, Completed Contract Method is more common.
3. *Inventory Accounting.* US uses LIFO, UK uses FIFO, Weighted Average used elsewhere, though Japan uses LIFO for Tax purposes.
4. *Depreciation Accounting.* Anglo countries use straight-line depreciation often, the Continent/Asia: & Latin America use accelerated depreciation.
5. *Research & Development.* US & Germany, usually expensed; whilst in UK it is capitalized. Elsewhere, it is flexible.
6. *Pensions.* Western world uses Accrual Methods, whilst Asia & Latin America use Pay-as-you-Go
7. *Timeliness of Report Filings.* US & UK, annual reports due within 3 mos. Of close. Elsewhere, not available 'til much later.
8. *Interim Statements.* NAFTA has quarterlies. Most other places, only semi-annual.
9. *Segment Disclosures.* Common in US, but rare elsewhere.
10. *Quality of Accounting Information.* In Emerging nations, accounting companies are often not independent of management.
11. *EPS.* Generally calculated differently elsewhere.
12. *Marketable Securities.* Varies between Marked to Market & Accrual.
13. *Joint Ventures.* US-equity method. Elsewhere, proportionate consolidation could be used.
14. *Amortization of Goodwill & Intangibles.* US → 40 years_{max}. Latin/Asian → 5 years_{max}. UK → charged directly to Shareholder's Equity on BS, not IS.
15. *Capitalization of Interest.* Required in US on interest used for construction. Not elsewhere.
16. *Tax Accounting.* US FASB 109. Vastly different elsewhere.
17. *Extraordinary Income.* Very limited under US GAAP. Elsewhere, management has more discretion.
18. *Foreign Operations.* Vary widely
19. *Cost v Equity Methods of accounting for Affiliates.* Only English world has Equity where Parent recognize Sub's income. Elsewhere, it's usually only dividends that are received.

Effects of Different Accounting Methods on Financial Ratios

1. *English Speaking: Focus on Investing Public. Tend to have higher Earnings & Net Worth.*
2. *More Flexible Accounting Std. Emerge when have independent financial reporting standards & tax bodies.*
3. *When Debt is dominant form of financing, acct. standards tend to be highly conservative*
4. *When GOV sets accounting standards, very inflexible*
5. *When only 1 set of Financials for both Public & Tax, tax considerations will dominate. Will use very conservative accounting methods (to keep earnings very low)*
6. *Historical & Cultural Factors influence the relative conservatism. US → like being free from debt implies won't go broke; elsewhere → debt is bad (because indicates nobody will lend to you)*