

THEORIES OF CONSOLIDATION:

- There is no one authoritative theory with respect to presenting consolidated financial statements.
- Three theories have been suggested over the years and current practice includes elements of each.
- In PURCHASE ACCOUNTING the parent values its own net assets and recognizes income in accordance with (IAW) GAAP. It consolidates the subsidiary IAW some combination of the following theories presented below:

1. PROPRIETARY THEORY:

- a. also known as the pro rata market value method; it is considered a conservative approach because it excludes the minority interest (MI) from consolidated financial statements;
- b. financial statements: intended for parent company stockholders only; views the consolidated entity as an extension of the parent and what the parent controls; considers the assets and liabilities of the subsidiary to be owned by the parent; no MI is reported because it represents an interest not owned by the parent;
- c. investment in subsidiary: assets and liabilities are valued at the parents pro rata share of both BV and the excess of cost over BV (aka purchase differential where cost represents FMV in an "arms length" transaction) of subs assets and liabilities.
- d. minority interest: no recognition is given to MI with respect to claims on net assets or income; no MI reporting on the consolidated financials.
- e. consolidated net income: income of the entire consolidated entity which is then allocated between the parent and the MI; parent includes its pro rata share of subsidiary income and eliminates 100% of unrealized gains and losses.
- f. interco gains and losses: parent eliminates pro rata share of both upstream and downstream transactions

2. PARENT COMPANY THEORY:

- a. recognizes that parent does not own but has effective control over net assets of subsidiary even when a MI exists;
- b. financial statements: intended for parent company stockholders only; views the consolidated entity as an extension of parent company statements; views the consolidated firm as an entity controlled by the parent but which may have minority ownership as well; MI must be recognized to reflect the portion of the consolidated entity not under the control of the parent;
- c. investment in subsidiary: subsidiary assets and liabilities are valued at the 100% of the BV and the pro rata share of the purchase differential
- d. minority interest: pro rata share of subsidiary book value plus pro rata share of change in retained earnings since acquisition (i.e. P% of net income or loss since acquisition); often shown as a liability from the viewpoint of the parent; value is based on the concept of legal capital;
- e. consolidated net income: income of the entire consolidated entity which is then allocated between the parent and the MI; the parent includes its pro rata share of subsidiary income and eliminates 100% of unrealized gains and losses (same as proprietary theory).
- f. interco gains and losses: parent eliminates 100% of downstream gains and losses on inventory and pro rata share of upstream gains; 100% of upstream losses are eliminated to the extent that intercompany sales price exceeds fair market value; gains and losses on intercompany sales of long lived assets, debt and other items require sp require special treatment.

3. ENTITY THEORY:

- a. the opposite of proprietary theory in that it views the consolidated firm as a separate entity (proprietary theory views the consolidated firm as an extension of the owners);
- b. financial statements: intended for all parties who have an interest in the consolidated entity; views the consolidated entity as separate from the owners; the parent and MI taken together make up the consolidated entity;
- c. investment in subsidiary: subsidiary assets and liabilities are recorded at an imputed FMV based on the cost of the investment; results in "appraisal capital". (the same procedure is used in partnership purchase accounting)
- d. minority interest: reported in the same manner as controlling interest as part of stockholders equity
- e. consolidated net income: the total net income to all owners of the consolidated entity; MI is allocated a portion of consolidated income;
- f. interco gains and losses: parent eliminates 100% of unrealized gains and losses in determination of consolidated income and allocates between parent and MI for upstream sales of inventory.

4. CURRENT PRACTICE:

- a. current practice is a blend of the theories discussed above;
- b. financial statements: intended primarily for the creditors and stockholders of the consolidated firm and reflect the operations of the consolidated firm as that of a single enterprise.
- c. investment in subsidiary: proprietary theory
- d. minority interest: reported as part of stockholders equity but as a single amount (as opposed to the full disclosure of entity theory) it is considered doubtful that MI shareholders would have or seek access to consolidated financial statements so there would be little benefit to full disclosure.
- e. consolidated net income: proprietary/parent company theory
- f. interco gains and losses: entity theory

SUMMARY TABLE
THEORIES OF CONSOLIDATION

Topic	Proprietary Theory	Parent Company Theory	Entity Theory	Current Practice
Investment In Subsidiary	$P \% \text{ Sub BV} + P \% \text{ of excess of cost} > \text{BV (Purchase Differential)}$	$100\% \text{ of Sub BV} + P \% \text{ of Purch Diff}$	$100\% \text{ of Sub BV} + 100\% \text{ of PuchDiff}$ (This means record at Fair Market Value)	Proprietary Theory
Controlling Interest Income	$\text{PIGNI} + P\%(\text{PNOMCR} - \text{PNOMDR})$ Less pro rata amort of Purch Diff plus $P\%(\text{SIGNI} + \text{UPNOMCR} - \text{DNNOMDR})$	Same as Proprietary	$\text{PIGNI} + \text{PNOMDR}$ Less: 100% amortization of PurchDiff	$\text{PIGNI} + \text{PNOMCR} - \text{PNOMDR}$ Plus: $P\% (\text{SIGNI} + \text{UPNOMCR} - \text{UPNOMCR})$
Minority Interest	None Recognized	$\text{MI}\%(\text{SIGNI})$	$\text{MI}\% + \text{UPNOMCR} - \text{UPNOMDR}$ Less: $\text{MI}\% (100\% \text{ PurchDiff})$	Proprietary Theory

Legend:

- Amort = Amortization
- P = Parent
- % = Percentage
- BV = Book Value
- PurchDiff = Purchase Differential ($P \% \text{ Sub BV} + P \% \text{ of excess of cost} > \text{BV (Purchase Differential)}$)
- PIGNI = Parents Internally Generated Net Income
- PNOMCR = Parents NOMinal account CRedits
- PNOMDR = Parents NOMinal account Debits
- SIGNI = Subsidiary Internally Generated Net Income
- UPNOMCR = UPstream NOMinal CRedits
- UPNOMDR = UPstream NOMinal Debits
- DNNOMCR = DownNstream NOMinal CRedits
- DNNOMDR = DownNstream NOMinal Debits

CONSOLIDATION THEORIES ILLUSTRATED:

To illustrate the application of these theories AT THE DATE OF ACQUISITION assume the following facts:

1. P purchases 90% of S on 12/31/x9 for \$3,000,000 cash
2. Relevant information just prior to the acquisition is presented below: /

	P		S	
	BV	FMV	BV	FMV
Cash.....	\$ 2,500,000	\$2,500,000	\$ 1,000,000	\$ 1,000,000
A/R--net.....	1,000,000	1,000,000	350,000	400,000
Inventory.....	900,000	1,000,000	500,000	600,000
MES.....	300,000	450,000	150,000	200,000
PP&E (10 yr life)	<u>2,500,000</u>	<u>3,000,000</u>	<u>700,000</u>	<u>900,000</u>
TOTAL.....	\$ 7,100,000	\$7,950,000	\$ 2,700,000	\$ 3,100,000
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Liabilities.....	\$ 800,000	800,000	250,000	200,000
C/S \$10 par.....	4,000,000	4,850,000	1,500,000	1,950,000
RE.....	<u>2,300,000</u>	<u>2,300,000</u>	<u>950,000</u>	<u>950,000</u>
TOTAL.....	\$ 7,100,000	\$7,950,000	\$ 2,700,000	\$ 3,100,000
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3. Any Goodwill resulting from the purchase will be amortized over 10 years

REQUIRED:

- A. For each of the theories discussed above:
 1. analyze the investment
 2. record the investment on the books of P
 3. record the consolidation Elimination Entries on the books of P

SOLUTION:

Requirement 1: Analyze the investment (Proprietary/Parent Company/i.e. Current Practice)

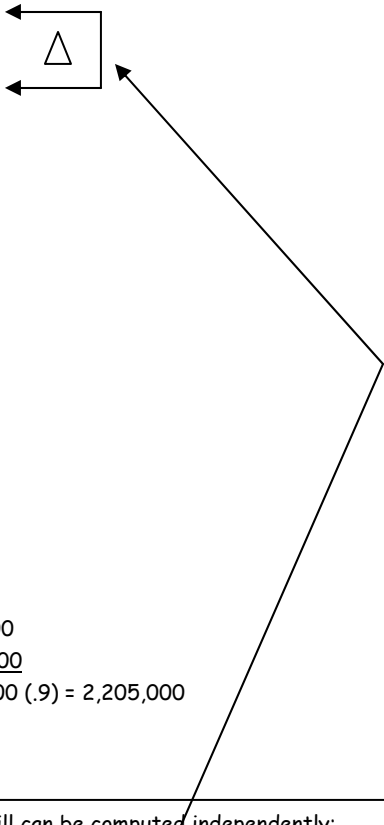
Cost.....	\$ 3,000,000	
Purchased BV (.9)(\$2,700,000-\$250,000)	<u>2,205,000</u>	alternative: \$ 1,500,000
Excess of cost over Purchased BV	\$ 795,000	+ 950,000
		2,450,000 (.9) = 2,205,000

Allocated to:

FMV accounts (CA/Liabilities/MES)		
A/R	(.9)(\$50,000)	\$ 45,000
Inventory	(.9)(\$100,000)	90,000
MES	(.9)(\$50,000)	45,000
Liabilities	(.9)(\$50,000)	<u>45,000</u>
		\$225,000

NCA accounts:		
PP&E	(.9)(\$200,000)	<u>180,000</u>
Balance to Goodwill (Note: This is a "Plug")		\$ 405,000
		<u>390,000**</u>
		\$ 795,000

****NOTE:** Goodwill can be computed independently:
 GW = Cost-P%(FMV of identifiable assets)
 = \$3,000,000 - (.9)(\$2,900,000)
 = \$ 390,000



Requirement 1: Analyze the investment: Entity Theory

Implied value of S (\$3,000,000/ (.9))	\$3,333,333
100% of BV (\$1,500,000+\$950,000)	<u>2,400,000</u>
Excess of implied value over BV	\$ 883,333

***NOTE: Goodwill can be computed independently:
 GW = Implied value-FMV of identifiable assets
 = \$3,333,333-\$2,900,000
 = \$ 483,333

Implied value: 3,000,000/.9= 3,333,333

Allocated to:

FMV accounts (CA/Liabilities/MES)			
A/R	(100%)(\$50,000)	\$ 50,000	
Inventory	(100%)(\$100,000)	100,000	
MES	(100%)(\$50,000)	50,000	
Liabilities	(100%)(\$50,000)	<u>50,000</u>	\$ 250,000
NCA accounts:			
PP&E	(100%)(\$200,000)	<u>200,000</u>	
		\$ 450,000	
Balance to Goodwill.	(Note: this is a "plug")	<u>433,333***</u>	
		\$ 883,333	

REQUIREMENT 2: Record the investment:(Proprietary/parent Company/current practice)

Investment is S (at full cost)	3,000,000
Cash	3,000,000

REQUIREMENT 2: Record the investment:(Entity Theory)

Investment is S (at full cost)	3,333,333
Cash	3,000,000
Appraisal Capital-minority interest	333,333

REQUIREMENT 3: Record the Consolidation Elimination Entries (Proprietary/Parent Company/Current Practice)

a. Eliminate current year investment account entries:

Equity in "S" NI	
Dividends	not required at date of acquisition; these entries made end of year...
Investment in "S"	

b. Eliminate "P" pro rata share of "S" SHE

"S" C/S (.9)(\$1,500,000).	1,350,000
"S" PIC (P%)("S" PIC in excess of par)	-0-
"S" RE (.9)(\$950,000)	855,000
Investment in "S"	2,205,000

c. Allocate the excess of cost over book value per analysis

A/R	45,000
Inventory	90,000
MES	45,000
Liabilities	45,000
PP&E	180,000
Goodwill	390,000
Investment in "S"	795,000

NOTE: At this point the investment account should be eliminated (zero balance) if no errors have been made

Investment in "S"	\$3,000,000
Less:	(2,205,000)
	<u>(795,000)</u>
After Eliminations:	-0-

d. Amortize the excess of cost over book value (the dif. between values based on "P" life and values and "S" life and value)

Depreciation expense	18,000
Amortization Expense	39,000
Goodwill (\$795,000/10)	39,000
A/D PP&E (\$180,000/10)	18,000

REQUIREMENT 3: (Continued:) Record the Consolidation Entry (Entity Theory)

a. Eliminate current year investment account entries:

Equity in "S" NI.....
 Dividends..... not required at date of acquisition
 Investment in "S".....

b. Eliminate "S" SHE

"S" C/S	1,500,000	
"S" PIC	-0-	
"S" RE	950,000	
Investment in "S"		2,450,000

NOTE: At this point the investment account should be eliminated (zero balance) if no errors have been made

Investment in "S" (Entity theory)	\$3,333,000
Less:	(2,450,000)
	<u>(833,333)</u>
Investment in "S"	-0-

c. Allocate the excess of cost over book value per analysis

A/R	50,000	
Inventory	100,000	
MES	50,000	
Liabilities	50,000	
PP&E	200,000	
Goodwill	433,333	
Investment in "S"		883,333

NOTE: Appraisal capital would be amortized to the MI RE in future periods and would equal the extra depreciation charge caused by the write-up of assets applicable to the MI

d. Amortize the excess of cost over book value (the dif. between values based on "P" life and values and "S" life and value)

Appraisal Capital-MI (\$2,000+\$4,333)	6,333
Depreciation expense	20,000
Amortization Expense	43,333
Goodwill (\$795,000/10)	43,333
A/D PP&E (\$180,000/10)	20,000
MI-RE	6,333