Accounting for Business Combinations

15.501/516 **Accounting**

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Investments and Acquisitions
Agenda

- Understand that the accounting method used for acquisitions depends on the extent to which the investor exerts influence over the investee.
- Understand the effects of dividends received and investee income on the financial statements of the investor under the equity method.
- Understand the effects of consolidated accounting on the balance sheet and income statement of the investor.

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Investments in the Stock of Other Companies

- The accounting method for stock investments depends on the degree of influence the investing company has on the decisions of the investee.
- Three methods of accounting for this investment:

Ownership:	<20%	20-50%	>50%
Influence:	“passive”	“significant influence”	“controlling”
Reporting Method:	*Mark-to-market*	*Equity*	*Consolidation*

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Equity Investment Accounting Rationale

- **For any company:**

  Ending RE =

  Beginning RE + Net Income – Dividends

- **Following the same logic =>**

  Ending value of investment on investing company's books =

  Beginning value of investment + investor's share of investee's net income – investor's share of investee's dividends

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Significant Influence ➔ Equity Method

- Assume the following events
  1. Purchase: Investor acquires 48,000 shares amounting to 40% of EE Corporation for $10 per share
  2. Dividends: EE Corporation pays a dividend of $60,000 or 50 cents per share
  3. Affiliate earnings: EE Corporation Earns $100,000 in Net Income

- Record these events on BSE of investor company.

	Cash	**Long-term Investment**	**R/E**	**Comment**
1. Purchase	(480,000)	480,000		
2. Dividends	24,000	(24,000)		40% × $60,000
3. Aff. earnings		40,000	40,000	Investment income

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Equity Investment Journal Entries – For The Investing Company

- At the time of investment
  - Dr Long Term Investments 480,000
  - Cr Cash 480,000
- At the time of dividends payment
  - Dr Cash 24,000
  - Cr Long Term Investments 24,000
- At the time investee declares net income
  - Dr Long Term Investments 40,000
  - Cr Investment income 40,000

Control → Consolidation Method

- When the investor controls the investee,
  - The investor corporation = parent.
  - The investee corporation = subsidiary.
  - The parent prepares consolidated financial statements that treat the parent and the subsidiary as a single *economic entity* even though they are separate *legal* entities.

- Consolidated financial reporting brings together multiple sets of financial records *at the time of reporting to outsiders*
  - Each subsidiary maintains its own set of books that is independent of who owns it, whether it is one person/company or one million.
  - Parent has its set of books pre-consolidation.

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Consolidation Method: Initial purchase

- P Co. acquires 100% of S Co.'s stock for $110 cash.
- Assume the book value of S's assets, liabilities, and shareholder's equity equal their market value.

	P Co. pre-acq.	P Co. post-acq.	S Co.	Adjustment	Consolidated P+S
Cash, other assets	$ 500		$ 150		
Investment in S	___		___		
	500		150		
Liabilities	200		40		
S. E.	300		110		
	500		150		

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	P Co. pre-acq.	P Co. post-acq.	S Co.	Adjustment	Consolidated P+S
Cash, other assets	$ 500	390	$ 150		
Investment in S	___	110	___		
	500	500	150		
Liabilities	200		40		
S. E.	300		110		
	500		150		

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	P Co. pre-acq.	P Co. post-acq.	S Co.	Adjustment	Consolidated P+S
Cash, other assets	$ 500	390	$ 150		540
Investment in S	___	110	___		
	500	500	150		
Liabilities	200	200	40		240
S. E.	300	300	110		
	500	500	150		

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	P Co. pre-acq.	P Co. post-acq.	S Co.	Adjustment	Consolidated P+S
Cash, other assets	$ 500	390	$ 150		540
Investment in S	___	110	___	–110	
	500	500	150		
Liabilities	200	200	40		240
S. E.	300	300	110	–110	
	500	500	150		

Eliminated

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Consolidation Method: Initial purchase

- P Co. acquires 100% of S Co.'s stock for $110 cash.
- Assume the book value of S's assets, liabilities, and shareholder's equity equal their market value.

	P Co. pre-acq.	P Co. post-acq.	S Co.	Adjustment	Consolidated P+S
Cash, other assets	$ 500	390	$ 150		540
Investment in S	___	110	___	–110	0
	500	500	150		540
Liabilities	200	200	40		240
S. E.	300	300	110	–110	300
	500	500	150		540

Eliminated

Intuition Behind Consolidation Method

- The effect of consolidation is to treat P's purchase of S as if P purchased the assets and liabilities of S.
  - The equity of S does not appear in P's consolidated financial reports.
  - The equity of the consolidated entity reflects the ownership of the parent (P Co.) by its shareholders.

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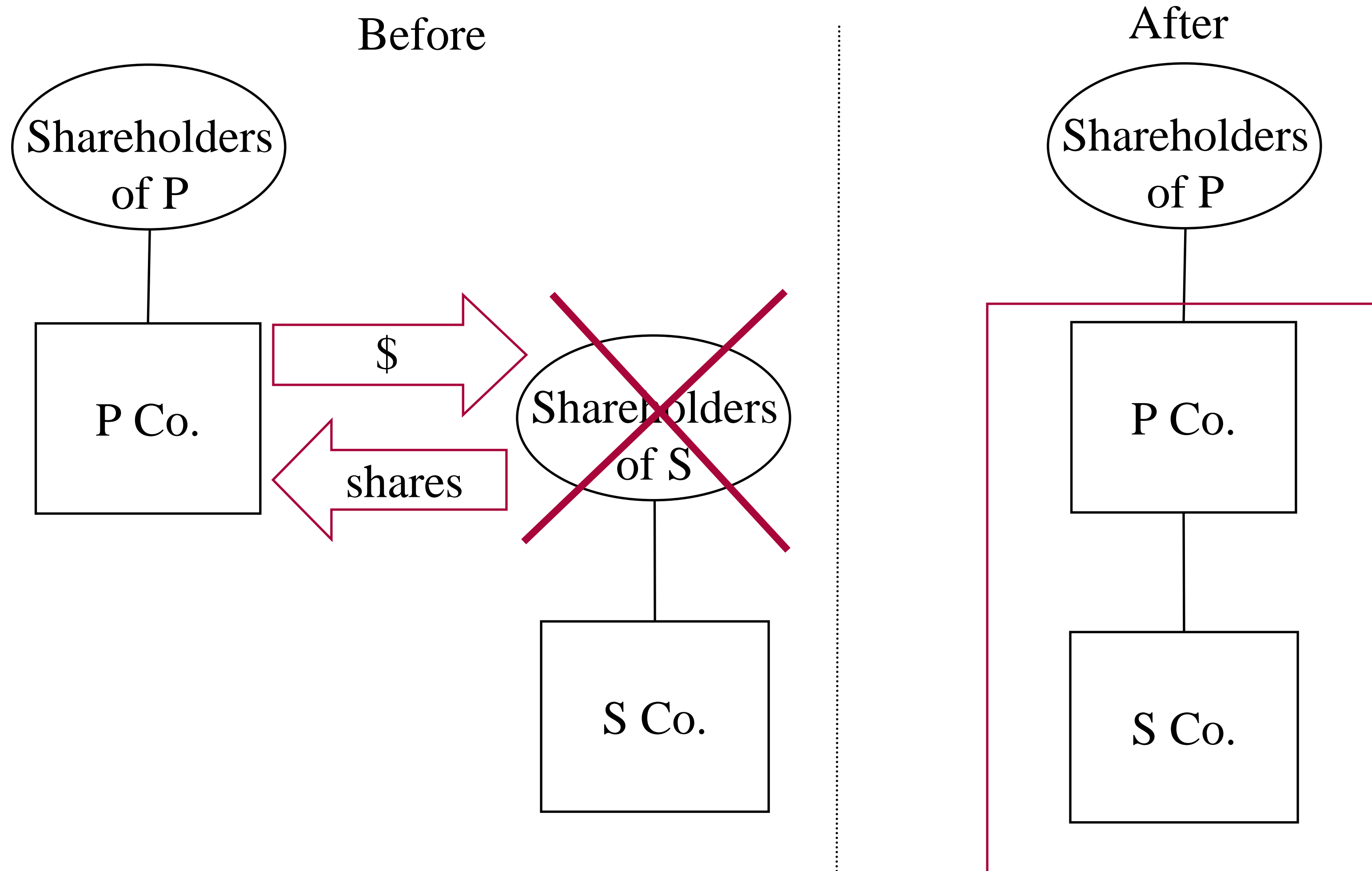
Schematic of a 100% Acquisition



➔**Consolidated equity reflects ownership interest of P's shareholders**

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Consolidation: Post-purchase Events

- P Co. owns 100% of S Co.'s stock.
- Prepare a consolidated income statement using the following separate income statements for P and S.

	P Co.	S Co.	Adjustment	Consolidated P+S
Sales	600	$ 180		
Expenses	– 450	– 160		
	150	20		
Investment income		--		
Net income		20		

Consolidation: Post-purchase Events

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- Prepare a consolidated income statement using the following separate income statements for P and S.

	P Co.	S Co.	Adjustment	Consolidated P+S
Sales	600	$ 180		
Expenses	– 450	– 160		
	150	20		
Investment income	20	--		
Net income	170	20		

Consolidation: Post-purchase Events

- P Co. owns 100% of S Co.'s stock.
- Prepare a consolidated income statement using the following separate income statements for P and S.

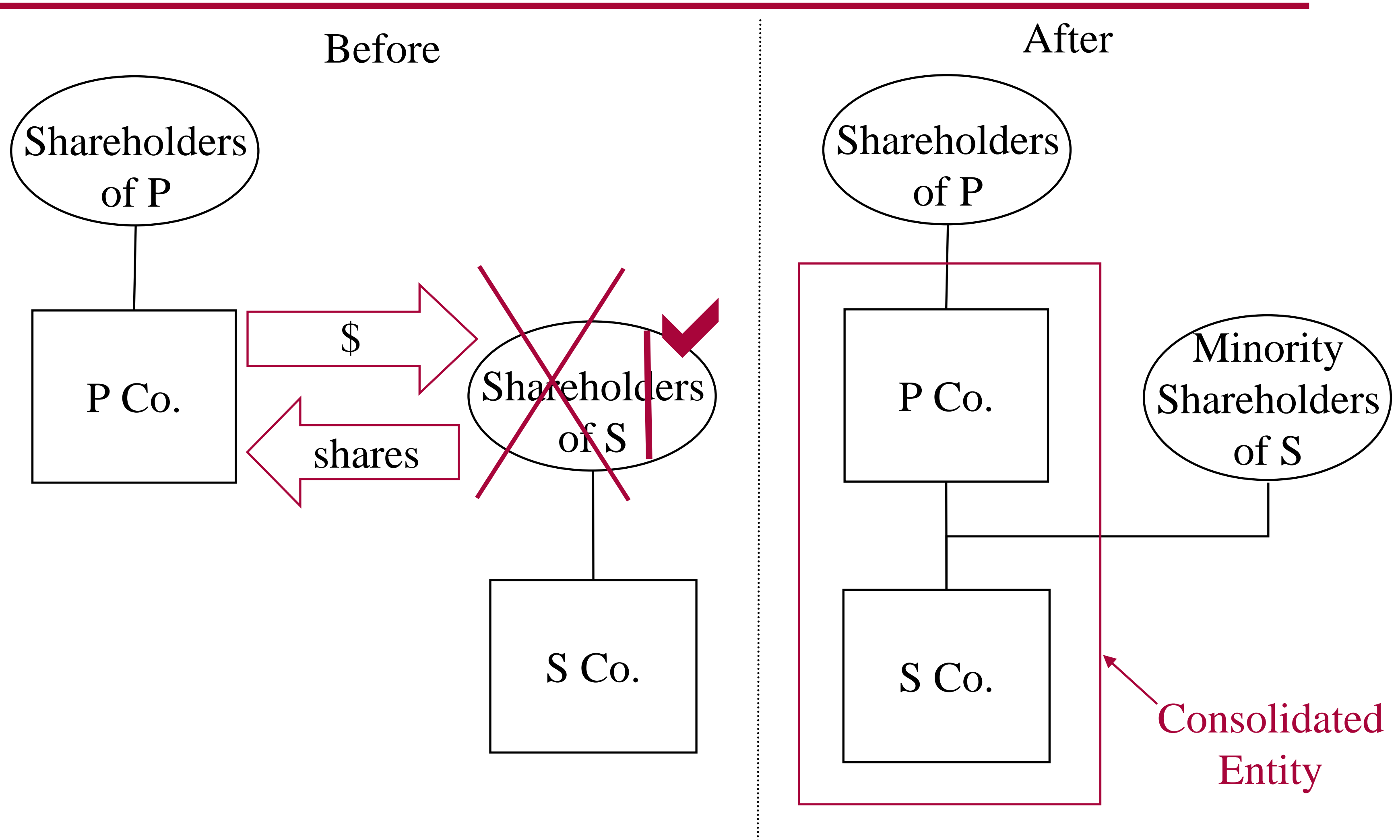
	P Co.	S Co.	Adjustment	Consolidated P+S
Sales	600	$ 180		780
Expenses	– 450	– 160		– 610
	150	20		170
Investment income	20	--		
Net income	170	20		

Consolidation: Post-purchase Events

- P Co. owns 100% of S Co.'s stock.
- Prepare a consolidated income statement using the following separate income statements for P and S.

	P Co.	S Co.	Adjustment	Consolidated P+S
Sales	600	$ 180		780
Expenses	– 450	– 160		– 610
	150	20		170
Investment income	20	--	– 20	0
Net income	170	20		170

<100% Acquisition



➔**Consolidated equity reflects ownership interest of P's shareholders**

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Consolidation Method when Price ≠ FV ≠ BV

- We previously assumed that:
  - Price paid for S's equity = Book Value of S's equity, and
  - Fair Value of S's net assets = Book Value of S's net assets
- In practice this is unlikely.
- For consolidation purposes:
  1. First adjust S balance sheet items (both assets and liabilities) to their fair market values (including identifiable intangible assets such as trademarks).
  2. Then any excess of purchase price over the total fair value of these net assets equals goodwill.
- GW = Purchase Price – Fair Value(Id. Net Assets)

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Consolidation: Initial purchase 100% Purchase and Price ≠ FV ≠ BV

- P Co. acquires 100% of S Co.'s stock for $180 cash.
- Book and Fair values of S's net assets are as given below.

	P Co. pre-acq.	P Co. post-acq.	BV S Co.	FV S Co.	Adj.	Consol P+S
Cash, other assets	$ 500		$ 150	190		
Investment in S						
Goodwill						
	500		150			
Liabilities	200		40	30		
S. E.	300		110			
	500		150			

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Consolidation: Initial purchase
100% Purchase and Price ≠ FV ≠ BV

- P Co. acquires 100% of S Co.'s stock for $180 cash.
- Book and Fair values of S's net assets are as given below.

	P Co. pre-acq.	P Co. post-acq.	BV S Co.	FV S Co.	Adj.	Consol P+S
Cash, other assets	$ 500	320	$ 150	190		
Investment in S		180				
Goodwill						
	500	500	150			
Liabilities	200	200	40	30		
S. E.	300	300	110			
	500	500	150			

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Cash, other assets	$ 500	320	$ 150	190		
Investment in S		180				
Goodwill				20		
	500	500	150	210		
Liabilities	200	200	40	30		
S. E.	300	300	110	180		
	500	500	150	210		

FV(net assets of S) = 190 – 30 = 160

GW = Price paid – FV(net assets of S) = 180 – 160 = 20

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Consolidation: Initial purchase
100% Purchase and Price ≠ FV ≠ BV

- P Co. acquires 100% of S Co.'s stock for $180 cash.
- Book and Fair values of S's net assets are as given below.

	P Co. pre-acq.	P Co. post-acq.	BV S Co.	FV S Co.	Adj.	Consol P+S
Cash, other assets	$ 500	320	$ 150	190		510
Investment in S		180			–180	0
Goodwill				20		20
	500	500	150	210		530
Liabilities	200	200	40	30		230
S. E.	300	300	110	180	–180	300
	500	500	150	210		530

FV(net assets of S) = 190 – 30 = 160
GW = Price paid – FV(net assets of S) = 180 – 160 = 20

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What Happens To Goodwill in Subsequent Years?

- After goodwill is determined, it has to be "assigned" to specific business units within the merged entity (FAS 142)
- Before July 2001 (FAS 142), goodwill had to amortized over a maximum period of forty years
- Now, goodwill does not have to be amortized
- It is tested for impairment annually

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Goodwill Impairment

- What is goodwill impairment?
  - Reduction in value of goodwill
- When does impairment occur?
  - Technically speaking when "implied goodwill" from fair value of business unit is below book value of goodwill assigned to that unit.
  - Requires accountants to value unlisted business units of the merged entity!
- What happens when goodwill is impaired?
  - Company writes down the value of goodwill and recognizes a corresponding loss in the Income Statement

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Goodwill impairment charges

- In practice, what do you think will trigger goodwill impairment?
  - *Decline in stock prices*

- In 2002, American companies wrote off close to $750 billion (HUGE write-downs by AOL Time Warner, AT&T, Nortel, Corning, Blockbuster)

- An additional $200 billion of goodwill impairment charges expected in 2003.

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Issues In Goodwill Accounting

- Under FAS 142, what exactly does goodwill capture?
  - *The value of synergies*
- What does goodwill impairment imply?
  - *Synergies lost*
- What else could they be the result of?
  - *A desire to "clear the decks", or, in other words, our old friend "the big bath"*

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Overall Idea Behind Consolidation Adjustments

- Consolidation combines the financial statements of parent and subsidiaries, resulting in one set of F/S.
- But there are numerous items that appear twice.
- Adjustments correct for the double-counting that would result from simply adding the financial statements together.
- Some other adjustments we haven't addressed:
  - Inter-company receivables and payables
  - Inter-company sales, costs, and profits
  - Following through the adjustments of S's net assets to FV

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Summary

- Accounting for long-term investments depends on degree of influence as determined by percentage holdings.
- In equity method and consolidation, the investment account:
  - increases when investee earns profits and
  - decreases and when investee pays dividends.
- Consolidation process:
  - Shows the combined F/S of parent and sub, and
  - Removes any double-counting
- Acquirer records goodwill when it pays more than fair value of the investee's net assets.
- Goodwill accounting raises some fairly complicated issues

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