

## APPENDIX E ADOBE CONNECT LIVE

### Reporting and Interpreting Investments in Other Corporations

See the Prerecorded Lectures for more in-depth discussion.

#### TOPICS

#### ACCOUNTING MODEL AND COMPREHENSIVE INCOME (LOSS)

- **Statement of Comprehensive Income**

	<b>Net income (loss)</b>
+	<b>Other comprehensive income (loss)</b>
=	<b>Comprehensive income (loss)</b>

- **Other comprehensive income (loss) used when**

- Change net assets (i.e., assets – liabilities)
- Not a direct transaction with owners (Chapter 11)
- Does not affect net income; affects other comprehensive income
  - **Example. Available for sale securities (Appendix E).**
  - Reported at fair value
  - **Unrealized gain/loss is reported as other comprehensive income (loss) item**

## INVESTMENTS IN BONDS

- Long-term
  - Accounting uses the effective interest method covered in Chapter 10 to amortize premium/discount
  - Classification
    - Available for Sale (*default*)
    - Held to Maturity
- Short-term
  - Does not use the effective interest method; *therefore premium/discount is not amortized*
  - Classification
    - Available for Sale (*default*)
    - Trading

## INVESTMENTS IN COMMON STOCK

- Methods
  - **Cost Method. *No significant influence*** (default assumption is  $< 20\%$  ownership of voting common stock).
    - *The text describes these investments as **passive investments**, accounting for using the fair value method*
  - **Equity Method. *Significant influence*** (default assumption is  $\geq 20\%$ , but  $\leq 50\%$  of voting common stock), but no control
  - **Consolidation. *Control*** (default assumption is  $> 50\%$  of voting common stock)
    - Accounting is beyond the scope of this course

## MARKETABLE SECURITIES

**Balance Sheet Presentation of Marketable Securities** (debt and equity securities with *readily determinable fair values*)

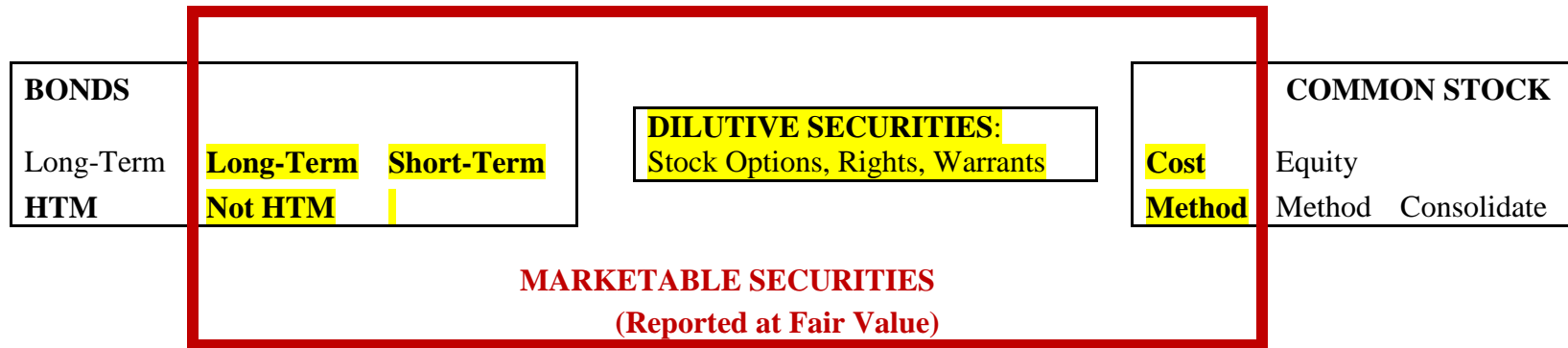
- Types of securities
  - **Common stock, accounted for using the cost method** (text describes as *passive investments*)
  - Preferred stock
  - Bonds
  - Etc.
- Classification
  - **Available-for-sale**
    - ***DEFAULT CLASSIFICATION***
    - Debt or equity securities
    - *Reported at fair value* (i.e., marked to market)
    - Unrealized gain/loss reported statement of comprehensive income as other comprehensive income (loss)
    - Does not affect net income
    - Investing activity on SCF

- **Trading**
  - *Management must designate as trading*
  - Debt or equity securities
  - *Reported at fair value* (i.e., marked to market)
  - *Unrealized gain/loss reported on income statement as other income(loss)*
  - Operating activity on SCF
- **Held-to-Maturity** (Long-term bonds only; no common stock)
  - *Management must designate as held to maturity*
  - *Reported at amortized cost* (i.e., carrying value, face  $\pm$  premium / discount)
  - **Not reported at fair value**
  - Investing activity on SCF

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**INVESTMENTS**


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HTM = held-to-maturity

## INVESTMENTS IN BONDS

See the Prerecorded Lecture for another long-term bond example (bond discount).

### BOND EXAMPLE (LONG-TERM INVESTMENTS)

**THE EFFECTIVE INTEREST METHOD OF COMPUTING INTEREST EXPENSE IS GAAP, AND STUDENTS SHOULD USE IT IN ALL GRADED SITUATIONS (PROBLEMS, QUIZ, EXAM), UNLESS OTHERWISE INDICATED.**

On January 1, 2015, the Porter Co. issued \$2,000,000 bonds in a private placement to the Fink Co. The 5 year, 8% bonds, with interest paid quarterly at the end of every calendar quarter, are due December 31, 2019. Fink paid \$2,066,686 for the bonds. **Fink classifies as held-to-maturity.**

**Step 1. Given the sales price, solve for effective interest rate**

N	$5 \times 4 = 20$
I	$= ??? = 1.8\% \text{ or } 0.018^*$
Pmt	$2,000,000 \times 8\% / 4 = 40,000$
FV	2,000,000
PV	2,066,686

\*1.8% per period, or 7.2% per year

The Excel syntax is `=RATE(20,40000,-2066686,2000000)`

**For convenience, let's start out by assuming that Fink makes quarterly entries related to the bond.**

Bond		8%, Quarter	Prin	2,000,000	
Pmt		2% / Quarter	Int	40,000	
Rate		0.018			
PV		(2,066,686)			
<b>ADOBE CONNECT LIVE PREMIUM PROBLEM</b>					
<b>Amortization Table</b>					
		<b>Interest</b>	<b>Interest</b>	<b>Premium</b>	<b>Carrying</b>
<b>QT. Payment</b>		<b>Received/Receivable</b>	<b>Income (3)</b>	<b>Amortization (2)</b>	<b>Value (1)</b>
<b>Purchase Price</b>					2,066,686
1		40,000	37,200	(2,800)	2,063,886
2		40,000	37,150	(2,850)	2,061,036
3		40,000	37,099	(2,901)	2,058,135
4		40,000	37,046	(2,954)	2,055,181
5		40,000	36,993	(3,007)	2,052,175
6		40,000	36,939	(3,061)	2,049,114
7		40,000	36,884	(3,116)	2,045,998
8		40,000	36,828	(3,172)	2,042,826
9		40,000	36,771	(3,229)	2,039,597
10		40,000	36,713	(3,287)	2,036,309
11		40,000	36,654	(3,346)	2,032,963
12		40,000	36,593	(3,407)	2,029,556
13		40,000	36,532	(3,468)	2,026,088
14		40,000	36,470	(3,530)	2,022,558
15		40,000	36,406	(3,594)	2,018,964
16		40,000	36,341	(3,659)	2,015,305
17		40,000	36,275	(3,725)	2,011,581
18		40,000	36,208	(3,792)	2,007,789
19		40,000	36,140	(3,860)	2,003,929
20		40,000	36,071	(3,929)	2,000,000
<b>Total</b>		<b>800,000</b>	<b>733,374</b>	<b>(66,686)</b>	
(1) Equal to the present value of the remaining cash flows using the historical effective interest rate					
(2) Premium Amortization.					
(3) Beginning carrying value x 1.8%					

**Step 2. Record the purchase.****January 1**

Assets	=	Liabilities	+	Equity
Cash ↓ 2,066,686 Bond investment ↑ 2,066,686				

**January 1, 2015 (net method, most widely used)**

Bond investment – held-to-maturity	2,066,686	
Cash		2,066,686

**January 1, 2015 (gross method)**

Bond investment – held-to-maturity	2,000,000	
Premium, bond investment - HTM	66,686	
Cash		2,066,686



**Step 3. Periodically Compute Interest Expense** (in this example, quarterly)

**March 31**

<b>Effective Interest Method Computations</b>		
	Beginning of the period carrying value	2,066,686
x	Historical effective interest rate	1.8%
=	Interest income	37,200
±	Interest received/receivable	40,000
	Premium amortization	(2,800)

		<b>Interest</b>	<b>Interest</b>	<b>Premium</b>	<b>Carrying</b>
<b>Payment</b>		<b>Receive</b>	<b>Income (3)</b>	<b>Amortization (2)</b>	<b>Value (1)</b>
					2,066,686
1		40,000	37,200	(2,800)	2,063,886

**March 31**

<b>Assets</b>	=	<b>Liabilities</b>	+	<b>Equity</b>
Cash ↑ 40,000 Bonds investment ↓ 2,800				Interest income ↑ 37,200

**Net Method**

Cash	40,000	
Bond investment – held-to-maturity		2,800
Interest income		37,200

**Note: Bond Investment reported on March 31 balance sheet at amortized cost: \$2,063,886**

**Note: June 30 Interest Income will be 37,150, and June 30 bond investment reported at \$2,061,036.**

		Interest	Interest	Premium	Carrying
Payment		Received	Income (3)	Amortization (2)	Value (1)
					2,066,686
1		40,000	37,200	(2,800)	2,063,886
2		40,000	37,150	(2,850)	2,061,036

### Change Classification to Available for Sale (AFS)

Fink classified the bond investment as held-to-maturity. What would happen if Fink classified the bond investment as AFS, and the fair value of the bond was \$2,100,000 on March 31?

**Fink would still make the March 31 AJE using the effective interest method** (note the investment is now labeled as available for sale, AFS) because the effective interest method is used for long-term bonds.

*The bond would be classified as a marketable security and reported at fair value.*

#### March 31

Cash	40,000	
Bond investment – AFS		2,800
Interest income		37,200

**Then, Fink would have an additional March 31 AJE for report at fair value.**

**\$2,100,000 FV - \$2,063,886 amortized cost= 36,114 unrealized gain.**

Bond investment – AFS (1)	36,114	
Unrealized gain/loss - AFS (2)		36,114

(1) Alternatively, securities fair value adjustment, AFS

(2) Reported as other comprehensive income (loss).

## **INVESTMENTS IN COMMON STOCK**

**Three Different Methods May Be Used (method depends on degree of influence/control).**

- **Cost method**
- **Equity Method**
- **Consolidation**

**Under the cost method. (No significant influence, presumed < 20% ownership)**

- Investments are recorded at cost
- Dividends received/receivable are recorded as *dividend income*
- When the investee reports comprehensive income, the investor's financial statements are not affected
- *Investment is reported at fair value* (marked to market) at year-end, with unrealized gain/loss reported either as other income/loss on income statement or other comprehensive income/loss.
- Classifications
  - **Trading** (unrealized gain/loss reported as *other income* on income statement)
  - **Available for sale** (unrealized gain/loss reported as *other comprehensive income*)
    - **DEFAULT CLASSIFICATION IS AFS**

**Text describes these investments as Passive Investments and the *Text describes the accounting as the Fair Value Method***

**Under the equity method. (Significant influence, presumed ownership  $\geq 20\%$ ,  $\leq 50\%$ )**

- Investments are recorded at cost
- Dividends received/receivable are recorded as a *reduction in investment*
- The investor records its *prorata* share of the investee's net income (loss) and other comprehensive income (loss) and an increase (decrease) in the investment
- *Investment may not be reported at fair value.*

**Consolidation. (Control, presumed ownership  $> 50\%$ ).**

- Financial statements of the investor and investee are combined.
- Beyond the scope of this course

## COMPARE AND CONTRAST COST AND EQUITY METHODS

### Example

On January 1, 2015 the Fitzgerald Co. purchased 16% of the outstanding voting common stock of the Horn Co. by purchasing 100,000 shares at \$22 per share.

We review the accounting under two assumptions, and assume that Fitzgerald makes annual adjusting journal entries.

- **Assumption 1.** *No significant influence* (cost method)
- **Assumption 2.** *Significant influence* (equity method)

### January 1, 2015

Assets	=	Liabilities	+	Equity
Cash ↓ 2,200,000				
Investments ↑ 2,200,000				

## Accounting Entries January 1, 2015

### Cost Method (No Significant Influence).

Investments in common stock – available for sale (1)	2,200,000	
Cash		2,200,000

(1) Available for sale security classification is the *default classification*.

### Equity Method (Significant Influence).

Investments in common stock – equity method (2)	2,200,000	
Cash		2,200,000

(2) Text uses the account title “*investments in affiliates*.” This title emphasizes the equity method. Either account title is acceptable



### *Investee Declares Dividends*

On December 31, 2015, Horn *declares* a dividend of \$0.50 per share to be paid in January 2016. Fitzgerald accounts for the declaration as follows.

#### **December 31, 2015 COST METHOD**

<b>Assets</b>	<b>=</b>	<b>Liabilities</b>	<b>+</b>	<b>Equity</b>
Dividends receivable ↑ 50,000				Dividend revenue (1) ↑ 50,000

(1) Alternatively, “dividend income”

#### **Cost Method**

Dividends receivable	50,000	
<b>Dividend revenue</b>		50,000

#### **December 31, 2015 EQUITY METHOD**

<b>Assets</b>	<b>=</b>	<b>Liabilities</b>	<b>+</b>	<b>Equity</b>
Dividends receivable ↑ 50,000 Investments ↓ 50,000				

#### **Equity Method**

Dividends receivable	50,000	
<b>Investments in common stock – equity method</b>		50,000

### ***Investee Reports Comprehensive Income***

At year end, Horn reports 20,000,000 in comprehensive income as follows:

- Net income (loss) = 21,000,000
- Other comprehensive income (loss)= (1,000,000)

Fitzgerald accounts for this information as follows:

### **December 31, 2015 COST METHOD**

**No Effect. NO Journal Entry**

### **December 31, 2015 EQUITY METHOD**

<b>Assets</b>	<b>=</b>	<b>Liabilities</b>	<b>+</b>	<b>Equity</b>
Investments (1) ↑ 3,200,000				Equity in affiliate earnings (2) ↑ 3,360,000 Equity in affiliate other comprehensive income (3) ↓160,000

(1)  $21,000,000 \times 16\% = 3,360,000$

(2)  $(1,000,000) \times 16\% = (160,000)$ .

(3)  $20,000,000 \times 16\% = 3,200,000$ .

### **Equity Method**

Investments in common stock – equity (1)	3,200,000	
Equity in affiliate other comprehensive income/loss (3)	160,000	
Equity in affiliate earnings (2)		3,360,000

(1) Text uses account title “investments in affiliates”

(2) Reported in the income statement

(3) Reported as other comprehensive income (loss)

**December 31, 2015 Comprehensive Income (Loss) Effect  
(Ignore Income Taxes)**

<b>STATEMENT OF COMPREHENSIVE INCOME (LOSS)</b>	<b>Cost</b>	<b>Equity</b>
<b>Net Income (Loss) Effect</b>		
<i>Other Income (Loss)</i>		
Dividend income	50,000	
Equity in affiliate earnings		3,360,000
<b>Net Income (Loss) effect</b>	50,000	3,360,000
<i>Other Comprehensive Income (loss)</i>		
Equity in affiliate other comprehensive income (loss)		(160,000)
<b>Total Comprehensive Income (loss) Effect</b>	50,000	3,200,000

***Year-End Adjusting Entries to Report at Fair Value (Mark to Market)***

At year end, Horn's common stock's ending market value is \$20 per share. Fitzgerald reports the following.

**December 31, 2015 COST METHOD**

<b>Assets</b>	<b>=</b>	<b>Liabilities</b>	<b>+</b>	<b>Equity</b>
Investments (1) ↓ 200,000				Other comprehensive income/loss ↓ 200,000

(1) 100,000 shares x (\$20-\$22) = \$200,000 unrealized loss

**Cost Method**

Unrealized gain/loss on available for sale securities – other comprehensive income (1)	200,000	
Investments in common stock – available for sale		200,000

(1) Or other comprehensive income (loss) – unrealized gain/loss on available for sale securities, or some similar account title.

# **December 31, 2015 EQUITY METHOD**

**No effect; may not be reported at fair value**

## **December 31, 2015 Comprehensive Income (Loss) Effect (Ignore Income Taxes)**

<b>STATEMENT OF COMPREHENSIVE INCOME (LOSS)</b>	<b>Cost</b>	<b>Equity</b>
<b>Net Income (Loss) Effect</b>		
Other Income (Loss)		
No effect		
<b>Net Income (Loss) Effect</b>		
<b>Other Comprehensive Income (Loss)</b>		
Unrealized gain (loss) on available for sale securities	(200,000)	
<b>Total Comprehensive Income (Loss) Effect</b>	(200,000)	None

## TRADING VS. AVAILABLE FOR SALE ACCOUNTING MARKETABLE SECURITIES

Assume that the Kennedy Co. purchased 10,000 shares of Lewis Co. common stock at \$18 per share; the purchase represented a 12% share of Lewis's outstanding common stock; and *Kennedy has no significant influence*.

We will look at how the transaction would be recorded if management designates as a trading security or as available for sale (default classification)

### Cost Method – Trading Security

Investment in common stock - trading	180,000	
Cash		180,000

$20,000 \times 15 = 300,000$

### Cost Method – Available for Sale Security

Investment in common stock – available for sale	180,000	
Cash		180,000

**INVESTEES DIVIDEND DECLARATION*****Lewis Declares A \$0.50 Per Share Common Stock Dividend.***

Kennedy make the following journal entries under alternative assumptions.

**Cost Method – Trading Security**

Dividends receivable	5,000	
Dividend revenue		5,000

$$10,000 \times 0.50 = 5,000$$

**Cost Method – Available for Sale Security**

Dividends receivable	5,000	
Dividend revenue		5,000

**NOTE: NO DIFFERENCE UNDER THE TWO METHODS.**

***INVESTOR PERIOD-END AJE RELATED TO FAIR VALUE***

***At Month-End, Lewis's Common's Market Value Is \$19.00 Per Share***

**10,000 shares x (19 – 18) – 10,000 unrealized gain**

**Cost Method – Trading Security**

Investments in common stock – trading	10,000	
Unrealized gain/loss on trading securities – other income (1)		10,000

(1) Alternative account title “unrealized gain/loss – trading”

**Cost Method – Available for Sale Security**

Investments in common stock – available for sale	10,000	
Unrealized gain/loss on available for securities – other comprehensive income (2)		10,000

(2) Alternative account title “unrealized gain/loss – available for sale”



**December 31, 2015 Comprehensive Income (Loss) Effect  
(Ignore Income Taxes)**

<b>Statement of Comprehensive Income (Loss)</b>	<b>Trading</b>	<b>Available for Sale</b>
<b>Other Income (Loss)</b>		
Unrealized gain (loss) on trading securities	10,000	
<b>Net Income (Loss) Effect</b>	10,000	0
<b>Other Comprehensive Income(Loss)</b>		
Unrealized gain (loss) on available for sale securities	0	10,000
<b>Total Comprehensive Income Effect</b>	<b>10,000</b>	<b>10,000</b>

## GOODWILL

***Goodwill is defined as the excess of the purchase price over the sum of the fair values of the net assets acquired in a business combination.***

On January 1, 2016, the Noble Co. purchased 100% of the outstanding common stock for the Thorstad Co. for \$35,000,000. The fair value of the net assets acquired equaled \$27,500,000.

- Fair value of assets acquired = \$32,000,000
- Fair value of liabilities acquired = \$4,500,000

***In practice, each asset and liability would be recorded separately. However, for convenience here, use two account titles: other assets and other liabilities.***

Assets	=	Liabilities	+	Equity
Cash ↓ 35,000,000 Other assets ↑ 32,000,000 Goodwill ↑ 7,500,000 (1)		Other liabilities ↑ 4,500,000		

(1) 35,000,000 purchase price paid – 27,500,000 fair value of net assets acquired

Other assets	32,000,000	
<b>Goodwill</b>	<b>7,500,000</b>	
Other liabilities		4,500,000
Cash		35,000,000

## Goodwill Impairment

*Goodwill is not amortized, but it must be assessed periodically for impairment.*

**The impairment test is beyond the scope of the text.** However, assume that of the \$4,000,000 goodwill recorded above it is deemed that \$4,000,000 should be expensed as impaired.

Goodwill impairment expense	4,000,000	
Goodwill		4,000,000

## RATIOS

### Economic Return from Investing

$$\text{Economic Return on Investing} = \frac{\text{Dividends Received} + \text{Interest Received} + \text{Changes in Fair Value of Investment (1)}}{\text{Fair Value of Investments (Beginning of Period) (2)}}$$

- (1) To simplify, the authors use the average of beginning and ending balances. *In practice, would adjust for investment contributions and outflows during the period*
- (2) *Most analysts would use average fair value (weighted average) during the period.*

## RATIO REVIEW

Return on Assets (ROA) is the major ratio introduced in Chapter 5. Although not discussed in Chapter 5, it is good to review ROA given Appendix E's discussion of assets.

**ROA is a common summary statistic used to track firm performance.** ROA reports *net income per dollar of average total assets*.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

## STATEMENT OF CASH FLOWS

This appendix provides examples of many items that affect the Statement of Cash Flows.

### Example

<b>Cash Flow From Operating Activities</b>	
Net Income	\$180,000,000
Adjustments to reconcile from net income to cash flow from operations	
Goodwill impairment	1,200,000
Unrealized loss (gain) on trading securities	35,000
Equity in affiliate earnings	(100,000)
Decrease (increase) in dividends receivable** (1)	(20,000)
Decrease (increase) in interest receivable** (2)	7,000
Net Cash Flow From Operating Activities	
<b>Cash Flow From Investing Activities</b>	
Purchase of investments	(114,000,000)
Sales of investments	97,000,000
Net Cash Flow From Financing Activities	

(1) Dividends receivable under the cost method

(2) Interest received is classified as an operating activity; thus, the reconciling adjustment is the change in the account balance.

### \*\* Follow the heuristic.

Here is a mental rule that you can help to remember how the adjustments to operational current assets and operational current liabilities are made. **Memorize this heuristic.**

- If the increase or decrease in the operational current asset or current liability account was a **debit** during the year (e.g., increase in current asset or decrease in current liability), then think of the needed offset as a **credit** to (a reduction in) cash. This is the case in the example above.
- If the increase or decrease in the operational current asset or current liability account was a **credit** during the year (e.g., decrease in current asset or increase in current liability), then think of the needed offset as a **debit** to (an addition to) cash.