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## Module 15

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## **Module 15 Summary**

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### I. Accounting for Investments in Bonds

A. Corporations may make *long-term investments in bonds* issued by other corporations. If this is done the corporation must debit an investment account (usually something like *Investment in XYZ Corporation Bonds*) as follows:

Investment in XYZ Corporation Bonds	<i>\$X</i>
Cash	<i>\$X</i>

- B. Bonds that are *purchased between interest payment dates* are purchased "with accrued interest."
  - 1. Since a full six months' interest will be paid to the buyer of a bond when the interest payment date is reached, the seller will require the buyer to pay the interest that has accrued to date along with the price of the bonds. This way the seller receives the interest he or she has earned since the last semi-annual interest payment, and the buyer, once the next semi-annual interest payment is received, will "net out" with the interest that was earned from the date of sale to the interest payment date.
  - 2. The entry to record the purchase of bonds with accrued interest is as follows:

Investment in XYZ Corporation Bonds	<i>\$X</i>
Interest Receivable	<i>\$X</i>
Cash	<i>\$X</i>

- 3. Interest Receivable is debited in the entry above for the amount of the accrued interest being paid to the seller. When the full 6 months' interest payment is received, the buyer will debit Cash and credit Interest Receivable and Interest Revenue. The resulting balance in the Interest Revenue will equal the interest that was earned from the date of the purchase up until the interest payment date.
- C. **Sale of a Bond Investment**. When bond investments are sold, the Investment account is credited and Cash is debited.
  - 1. The difference between the cash received and the balance in the Investment account will represent a gain or a loss from the sale of the investment:

Gain:		Loss:	
Cash	<b>\$X</b>	Cash	<i>\$X</i>
Investment in XYZ Bonds	<i>\$X</i>	Loss on Sale	<i>\$X</i>
Gain on Sale	<b>\$X</b>	Investment in XYZ Bonds	<b>\$X</b>

2. If the bonds are sold between interest payment dates, the seller will collect the accrued interest on the bonds along with their selling price. This means that *Interest Revenue* will also need to be recorded along with the gain or loss from the sale:

Gain:		Loss:	
Cash	<i>\$X</i>	<del>Cash</del>	<i>\$X</i>
Investment in XYZ Bonds	<b>\$X</b>	Loss on Sale	<b>\$X</b>
Interest Revenue	<b>\$X</b>	Interest Revenue	<i>\$X</i>
Gain on Sale	<b>\$X</b>	Investment in XYZ Bonds	<i>\$X</i>

*Here's an Example!* On January 1, 20X1, ZanPro Corporation purchases100 bonds that were issued by Kaldon Corporation to hold as a long-term investment. The bonds are purchased for 100% of par value, have a \$1,000 par value, a 6% face rate, and a 2-year term. Interest is paid semi-annually.

- (a.) Record the purchase of the bonds and all the entries made during 20X1. Record the sale of the bond investment on January 1, 20X2, for 104% of par value.
- (b.) Repeat your last entry assuming the bonds are sold on February 1, with \$500 of accrued interest ( $$3,000 \times 1/6 = $500$ ).
- (c.) Repeat your last entry assuming the bonds are sold for 94% of par value. (See below for the solution.)

	Solution to Bond Investm	ent Exercis	e
a.			
1/1/X1	Investment in Bonds	100,000	
	Cash	,	100,000
6/30/X1	Cash	3,000	
	Interest Revenue		3,000
12/31/X1	Cash	3,000	
	Interest Revenue		3,000
1/1/X2	Cash	104,000	
	Investment in Bonds		100,000
	Gain on Sale		4,000
b.			
2/1/X2	Cash	104,500	
	Investment in Bonds		100,000
	Gain on Sale		4,000
	Interest Revenue		500
c.			
2/1/X2	Cash	94,500	
	Loss on Sale	6,000	
	Investment in Bonds		100,000
	Interest Revenue		500

# II. Short-term Investments in *marketable securities* represent short-term, temporary "parking" for cash.

- A. Short-term investments may be made in government or corporate debt (*debt securities*) or in stocks (referred to as *equity investments*). These investments are classified as short-term current assets if (1) management *intends* to sell the investments whenever the company needs the cash, *and* (2) there is a *ready market* for the investments so that the sale can be made.
- B. When short-term investments are purchased, they are recorded at *cost*, which includes the price of the security along with any costs incurred that were necessary in order to acquire the asset (such as brokerage commissions, sales tax, etc.). The form of the entry is as follows:

## Short-term Investments (or similar) \$X Cash \$X

- C. Short-term investments are classified as one of the three following types:
  - 1. **Securities Held to Maturity** include only debt securities (since stocks have no maturity date) that mature in less than one year, and that management intends to hold until maturity. These securities are carried at historical cost on the balance sheet.
  - 2. **Trading Securities** are "actively managed" investments (several purchases and sales on a weekly or even daily basis). Trading securities are carried at **fair market value** (current market price) on the balance sheet. Increases or decreases in fair value are added to or subtracted from the *Marketable Securities* account balance, and they reported in the *Other Income and Expense* section of the income statement as **unrealized gains** or **unrealized losses**. They are closed to capital along with the rest of the revenues and expenses at the end of the period.
  - 3. **Available-for-Sale Securities** are comprised of those securities that are not classified as *held to maturity* or *trading securities*. They are securities that will be liquidated when and if the need for cash arises; perhaps soon, or perhaps much later.
    - a. Like trading securities, available-for-sale securities are carried at fair market value on the balance sheet and are written up or down in exactly the same way as trading securities. However, the unrealized gain or unrealized loss is not reported on the income statement. Instead, the owner's equity section of the balance sheet is increased or decreased directly by adding or subtracting the change in value.

Therefore, the unrealized loss and unrealized gain accounts now become owner's equity accounts.

 Since the unrealized loss account has a debit balance, it reduces the net amount reported for Owner's Equity:

Stockholders' Equity:
Retained Earnings \$X
Less: Unrealized Loss (X)

2. Because the unrealized gain account has a credit balance, it increases the Owner's Equity:

Stockholders' Equity:
Retained Earnings \$X
Add: Unrealized Gain +X

- 4. **Realized Gains and Losses.** While unrealized gains and losses represent increases or decreases in securities the company still owns, realized gains and losses result from the actual sale of the securities. A realized gain occurs when an investment or other asset is sold for more than its cost, and it is reported on the income statement. A realized loss occurs when an asset is sold for less than its cost, and it represents an expense that must be reported on the income statement. Realized gains and losses are reported in the Other Income and Expense section of the income statement, and they closed to Income Summary along with the other revenue and expense accounts at the end of the period.
- 5. **Dividend Revenue.** Revenue is also recognized when the company receives dividend payments from its stock investments. A revenue account, called *Dividend Revenue* is used to record this revenue. It is reported on the income statement under the *Other Income and Expense* heading, and is closed to *Income Summary* along with the other revenue accounts.

*Here's an Example!* Suppose that 100 shares of Acme Corporation stock are purchased for \$5,000 on June 1 and that \$50 of dividends are received on July 1. The entries are:

6/1	S-T Investments	5,000
	<b>Cash</b> To record purchase of investment	5,000
7/1	Cash Dividend Revenue	50 50
	To record receipt of dividend.	0-

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If the stocks were sold for \$6,000 on July 10, the entry would be:

7/10 Cash 6,000

S-T Investments 5,000 Realized Gain on Investments 1,000

To record sale of investment at a gain

If the stocks were sold for \$4,000 on July 10, the entry would be:

7/10 Cash 4,000 Realized Loss on Investments 1,000 S-T Investments 5,000

To record sale of investment at a loss

If the stocks were NOT sold during the year, then an adjustment would have to be made at year-end to carry them at their fair market values. Suppose the market price for the stock on December 31 is \$45 per share (a total market value of \$4,500). Since the stock's fair market value is \$500 less than its cost, the investment would have to be written down to its market value, and an unrealized loss will be recorded:

### 12/31 Unrealized Loss on Marketable Securities 500 S-T Investments 500

To record decline in market value of investment

This "Unrealized Loss" account represents a decrease in stockholders' equity, and it will be reported on the balance sheet as a subtraction from *Retained Earnings*. If the balance in Retained Earnings is \$2,500, the investment and the unrealized loss will be reported on the balance sheet as follows:

Current Assets:

S-T Investments (at market value) \$4,500

**Stockholders' Equity:** 

Retained Earnings \$ 2,500

Less: Unrealized Loss on Marketable Securities (500) 2,000

Note that an unrealized gain, representing an increase in stockholders' equity, would be reported on the balance sheet as an *addition* to Retained Earnings.



Click the link below to play a video presentation that discusses the example above, and introduces other topics regarding short- and long-term investments.

**Link to Investments Presentation** 

- V. Long-term Investments in Stocks may also be made. Here, it is the company's intent to hold the investment for more than just a one-year period. Long-term investments are often made for strategic reasons. A company that is concerned about being able to obtain all the materials it needs for its operations may find it beneficial to own a substantial interest in the stock of its materials supplier, for example. There are three methods that may be used to account for long-term stock investments, depending on the nature of the investment:
  - A. **No Significant Influence**. When the investing company does **not** own enough of the stock to exercise *significant influence* over the operations of the company whose stock it owns, the long-term investment is accounted for using the same market value method described above for short-term available-for-sale investments.
  - B. **Significant Influence**. When the investing company **does** own enough of the stock to exercise *significant influence* over the operations of the investee, the **equity method** is used to account for the investment. Significant influence is presumed to exist when the investor owns **20% or more** of the outstanding stock of the investee.
    - 1. The investment is **not** carried at *fair market value* under the equity method. Instead, the investment is carried at *original cost, adjusted for dividends and the investee company's net income or net loss*, as illustrated below. The initial entry to record the purchase of the investment would be as follows:

# Investment in XYZ Corporation Stock \$X Cash \$X

To record purchase of long-term investment

2. **Dividend adjustment**. When dividends are received from the investee, the *Cash* account is debited but *Dividend Revenue* is **not** recorded. Instead, the *Investment* account is credited, reducing it by the amount of the dividends received:

Cash
Investment in XYZ Corporation Stock
To record receipt of dividend.

\$X\$

\$X\$

3. *Investee's Income or Loss*. When the investee reports its income (or loss), the investing company records a portion of the amount as revenue (or loss) on its own income statement. The portion of the investee's earnings (losses) that the investor reports as their own is equal to the portion of the outstanding shares of the stock owned. For example, if the company owns 25% of XYZ Corporation's outstanding

stock, and XYZ reports net income of \$100,000, the investing company would make the following entry:

# Investment in XYZ Corporation Stock Income of XYZ Corporation

25,000 25,000

To record 25% of XYZ's Net Income.

4. The sale of long-term investments is recorded in the same way as the sale of short-term investments. The Investment account is credited for its current balance, Cash is debited, and any credit or debit difference in recorded as a realized gain or loss from the sale.

Cash
Investment in XYZ Corporation Stock
Gain on Sale of Long-Term Investment
\$X\$

To record a realized gain on sale of the investment in XYZ's stock.

- C. **Controlling Interest**. When the investor owns 50% or more of the investee, the investor is said to **control** the investee. In this case, a **parent subsidiary relationship** exists, and there is, in effect, no difference between the two companies. The **parent**, owning the majority of the **subsidiary** company's stock, elects the directors it chooses to the board of directors and can exercise complete control over the company. The remaining stockholders in the subsidiary company hold a **minority interest** in the subsidiary.
  - 1. When a parent/subsidiary relationship exists, the *equity method* is used to account for the investment. In addition, the subsidiary's assets and liabilities are combined with the parent's, and its revenues and expenses are combined with the parent's. A set of *consolidated financial statements* are then published.
  - 2. Under the *purchase method*, the subsidiary's net assets are recorded on the parent's books at their fair market values. If an amount in excess of their fair market value was paid for them, the parent accounts for the difference as *Goodwill*.
  - 3. Consolidation of the financial statements is a very involved process. It becomes particularly complicated when *multinational* corporations must consolidate their statements with those of foreign subsidiaries whose account balances are expressed in foreign currencies.
  - 4. See supplement below for an illustration of the use of the equity method and the preparation of consolidated statements. Here you will find an explanation for the reason the entries under the equity method are made in the way they are, and why the method is used to account for investments in subsidiary companies.

# **Supplement The Equity Method**

This section explains the rationale for the use of the equity method in accounting for an investment. It is supplementary to our coverage, and you will not be tested over this material. However, the reasons for the equity method rules regarding dividends and earnings become understandable if you read through this section, and consider the passage of time and its effects upon both parent and subsidiary account balances. However, it is necessary to understand the process of inter-company eliminations and consolidated reporting in order to appreciate this.

#### I. Simple Scenario

Assume Parent purchases all of Subsidiary's stock, paying an amount exactly equal to the book value of the shares on Subsidiary's books, \$115,000:

Investment in Subsidiary Co. 115,000
Cash 115,000
To record investment

Subsidiary retains its accounts, resulting in the following account balances for both companies at the time of purchase:

	Parent Subsidiary		Elimir	nations	Consolidated
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	5000	15000			
Notes Receivable	10000				
Investment in Subsidiary Co.	115000				
Depreciable Assets	150000	100000			
Land	40000	<u>17000</u>			
Total	320000	132000			
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			
Notes Payable		10000			
Common Stock	250000	100000			
Retained Earnings	<u>55000</u>	<u>15000</u>			
Total	320000	132000			

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#### Consolidated Financial Statements

When financial statements are prepared for the new consolidated entity, the separate accounts of the two companies must be combined. However, balances that represent inter-company transactions must be eliminated. First, any inter-company loans must be

eliminated since the consolidated company cannot owe itself money. Also, the Investment account balance, along with the subsidiary company's owner equity must be eliminated since the consolidated company cannot invest in itself.

If the note receivable is a loan by Parent to Subsidiary, and if Parent has purchased all of subsidiary's stock for \$115,000, then the eliminations needed to prepare a consolidated balance sheet are as follows:

Eliminations Worksheet, 1/1/X1

	Parent	Subsidiary	Elimir	ations	Consolidated
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	5000	15000			20000
Notes Receivable	10000			10000	
Investment in Subsidiary Co.	115000			115000	
Depreciable Assets	150000	100000			250000
Land	40000	<u>17000</u>			<u>57000</u>
Total	320000	132000			327000
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			22000
Notes Payable		10000	10000		0
Common Stock	250000	100000	100000		250000
Retained Earnings	55000	15000	15000		<u>55000</u>
Total	320000	132000			327000

Now, when the consolidated balance sheet is prepared, the note receivable/payable will not be reported, since it simply represents a transaction that occurred within the entity, and it does not represent a receivable or payable that the consolidated company has with a party outside the business. Also, the Investment account balance, and Subsidiary's stockholder's equity account balances, will not be reported, since there is no ownership equity in Subsidiary that is held outside the consolidated business and there is no investment that has been made outside the consolidated business. A business cannot make a loan to itself, and it cannot invest in itself!

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#### **The Equity Method and Its Effects**

Under the Equity Method, the entries on Parent's books would be:

Cash 5,000

Investment in Subsidiary Co. 5,000

To record receipt of dividends

Investment in Subsidiary Co. 10,000

Investment Income 10,000
To record Subsidiary's earnings

Subsidiary's closing entries would look like so:

Retained Earnings Cash Dividends 5,000

5,000

To close the Dividends account into Retained Earnings

Income Summary Retained Earnings

10,000

10,000

To close net income into Retained Earnings

Since, during the year, Subsidiary earned \$10,000 and paid \$5,000 in dividends, its Retained Earnings increases by \$5,000 overall and its total stockholders' equity goes from \$115,000 to \$120,000. Parent's Investment account has also gone from \$115,000 to \$120,000. Now, at the end of the year, the eliminations would be made as follows:

Eliminations Worksheet, 12/31/X1

	Parent	Subsidiary	Elimir	nations	Consolidated
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	10000	20000			25000
Notes Receivable	10000			10000	
Investment in Subsidiary Co.	120000			120000	
Depreciable Assets	150000	100000			250000
Land	40000	<u>17000</u>			57000
Total	330000	137000			332000
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			22000
Notes Payable		10000	10000		0
Common Stock	250000	100000	100000		250000
Retained Earnings	65000	<u>20000</u>	20000		60000
Total	325000	137000			332000

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By recording the dividend as a credit to the Investment account and Subsidiary's earnings as a debit to the Investment account, Parent's investment account changes in line with Subsidiary's stockholders' equity. Both have increased by \$5,000 overall, and the elimination entries can again be made as before. Thus, the Investment account balance "tracks along" with Subsidiary's stockholders' equity. This is appropriate, since the Investment account represents Parent's ownership of the net assets of Subsidiary, it is logical to record the \$5,000 increase in Subsidiary's net assets in Parent's Investment account.

### Complication #1 - More than book value is paid:

Suppose Parent had originally purchased 100% of Subsidiary, paying \$117,000 instead of \$115,000. The balance in the Investment account is now \$117,000, and when this balance is eliminated from the consolidated balance sheet, the consolidated balance sheet will NOT balance (see below):

	Parent	Subsidiary	Elimin	Eliminations		
	Company	Company	Debit	Credit	Amounts	
Assets						
Cash	3000	15000			18000	
Notes Receivable	10000			10000	0	
Investment in Subsidiary Co.	117000			117000	0	
Depreciable Assets	150000	100000			250000	
Land	40000	<u>17000</u>			<u>57000</u>	
Total	320000	132000			325000	
Liab.'s & Stockholders' Equity						
Accounts Payable	15000	7000			22000	
Notes Payable		10000	10000		0	
Common Stock	250000	100000	100000		250000	
Retained Earnings	<u>55000</u>	<u>15000</u>	15000		<u>55000</u>	
Total	320000	132000			327000	

The solution is to record the excess of cost over book value as Goodwill, which will then be amortized over some reasonable period of time. The eliminations are now:

	Parent Subsidiary		Elimin	Consolidated	
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	3000	15000			18000
Notes Receivable	10000			10000	0
Investment in Subsidiary Co.	117000			117000	0
Goodwill			2000		2000
Depreciable Assets	150000	100000			250000
Land	<u>40000</u>	<u>17000</u>			<u>57000</u>
Total	320000	132000			327000
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			22000
Notes Payable		10000	10000		0
Common Stock	250000	100000	100000		250000
Retained Earnings	<u>55000</u>	<u>15000</u>	15000		55000
Total	320000	132000			327000

## Complication #2 - Less than 100% of the stock of Subsidiary is acquired:

Suppose, in the original example, Parent had purchased 80% of Subsidiary, paying book value, \$92,000 (80% x \$115,000). When the balance in the investment account and all of Subsidiary's stockholder equity are removed from the balance sheet, the elimination entries now look like so, and the consolidated balance sheet will again NOT balance:

	Parent	Subsidiary	Elimir	Eliminations	
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	28000	15000			43000
Notes Receivable	10000			10000	0
Investment in Subsidiary Co.	92000			92000	0
Depreciable Assets	150000	100000			250000
Land	40000	17000			<u>57000</u>
Total	320000	132000			350000
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			22000
Notes Payable		10000	10000		0
Common Stock	250000	100000	100000		250000
Retained Earnings	55000	15000	15000		<u>55000</u>
Total	320000	132000			327000

This happens because all of Subsidiary's equity has been removed from the balance sheet even though \$23,000 (20% x \$115,000) of it is owned by other stockholders. This equity exists, and it represents the equity held by stockholders who are also invested in the consolidated company. These stockholders, however, hold stock certificates that say "Subsidiary" instead of "Parent." To account for this equity, separate from the equity interest of stockholders who hold "Parent" stocks, a new account called Minority Interest is used. The eliminations and the consolidated balance sheet now look like so:

	Parent	Subsidiary	Eliminations		Consolidated
	Company	Company	Debit	Credit	Amounts
Assets					
Cash	28000	15000			43000
Notes Receivable	10000			10000	0
Investment in Subsidiary Co.	92000			92000	0
Depreciable Assets	150000	100000			250000
Land	40000	<u>17000</u>			57000
Total	320000	132000			350000
Liab.'s & Stockholders' Equity					
Accounts Payable	15000	7000			22000
Notes Payable		10000	10000		0
Common Stock	250000	100000	100000		250000
Minority Interest				23000	23000
Retained Earnings	<u>55000</u>	<u>15000</u>	15000		55000
Total	320000	132000			350000

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