

## Chapter 2

### STOCK INVESTMENTS — INVESTOR ACCOUNTING AND REPORTING

#### Answers to Questions

- 1** Only the investor's accounts are affected when outstanding stock is acquired from existing stockholders. The investor records the investment at its cost. Since the investee company is not a party to the transaction, its accounts are not affected.

Both investor and investee accounts are affected when unissued stock is acquired directly from the investee. The investor records the investment at its cost and the investee adjusts its asset and owners' equity accounts to reflect the issuance of previously unissued stock.
- 2** Goodwill arising from an equity investment of 20 percent or more is not recorded separately from the investment account. Under the equity method, the investment is presented on one line of the balance sheet in accordance with the one-line consolidation concept.
- 3** Dividends received from earnings accumulated before an investment is acquired are treated as decreases in the investment account balance under the fair value/cost method. Such dividends are considered a return of a part of the original investment.
- 4** The equity method of accounting for investments increases the investment account for the investor's share of the investee's income and decreases it for the investor's share of the investee's losses and for dividends received from the investee. In addition, the investment and investment income accounts are adjusted for amortization of any investment cost-book value differentials related to the interest acquired. Adjustments to the investment and investment income accounts are also needed for unrealized profits and losses from transactions between the investor and investee companies. A fair value adjustment is optional under SFAS No. 159.
- 5** The equity method is referred to as a one-line consolidation because the investment account is reported on one line of the investor's balance sheet and investment income is reported on one line of the investor's income statement (except when the investee has discontinued operations). In addition, the investment income is computed such that the parent company's income and stockholders' equity are equal to the consolidated net income and consolidated stockholders' equity that would result if the statements of the investor and investee were consolidated.
- 6** If the equity method is applied correctly, the income of the parent company will generally equal the controlling interest share of consolidated net income.
- 7** The difference in the equity method and consolidation lies in the detail reported, but not in the amount of income reported. The equity method reports investment income on one line of the income statement whereas the details of revenues and expenses are reported in a consolidated income statement.
- 8** The investment account balance of the investor will equal underlying book value of the investee if (a) the equity method is correctly applied, (b) the investment was acquired at book value which was equal to fair value, the pooling method was used, or the cost-book value differentials have all been amortized, and (c) there have been no intercompany transactions between the affiliated companies that have created investment account-book value differences.
- 9** The investment account balance must be converted from the cost to the equity method when acquisitions increase the interest held to 20 percent or more. The amount of the adjustment is the difference between the investment income reported under the cost method in prior years and the income that would have been reported if the equity method of accounting had been used. Changes from the cost to the equity method of accounting for equity investments are changes in the reporting entity that require restatement of prior years' financial statements when the effect is material.

- 10** The one-line consolidation is adjusted when the investee's income includes gains or losses from discontinued operations. In this case, the investor's share of the investee's ordinary income is reported as investment income under a one-line consolidation, but the investor's share of gains and losses from discontinued operations is combined with similar items of the investor.
- 11** The remaining 15 percent interest in the investee is accounted for under the fair value/cost method, and the investment account balance immediately after the sale becomes the new cost basis.
- 12** Yes. When an investee has preferred stock in its capital structure, the investor has to allocate the investee's income to preferred and common stockholders. Then, the investor takes up its share of the investee's income allocated to common stockholders in applying the equity method. The allocation is not necessary when the investee has only common stock outstanding.
- 13** Goodwill impairment losses are calculated by business reporting units. For each reporting unit, the company must first determine the fair values of the net assets. The fair value of the reporting unit is the amount at which it could be purchased in a current market transaction. This may be based on market prices, discounted cash flow analyses, or similar current transactions. This is done in the same manner as is done to originally record a combination. The first step requires a comparison of the carrying value and fair value of all the net assets at the business reporting level. If the fair value exceeds the carrying value, goodwill is not impaired and no further tests are needed. If the carrying value exceeds the fair value, then we proceed to step two. In step two, we calculate the implied value of goodwill. Any excess measured fair value over the net identifiable assets is the implied fair value of goodwill. The company then compares the goodwill's implied fair value estimate to the carrying value of goodwill to determine if there has been an impairment during the period.
- 14** Yes. Impairment losses for subsidiaries are computed as outlined in the solution to question 13. Companies compare fair values to book values for equity method investments as a whole. Firms may recognize impairments for equity method investments as a whole, but perform no separate goodwill impairment tests.

**SOLUTIONS TO EXERCISES****Solution E2-1**

- 1** d  
**2** c  
**3** c  
**4** d  
**5** b

**Solution E2-2** [AICPA adapted]

- 1 d  
 2 b  
 3 d  
 4 b

Pop's investment is reported at its \$600,000 cost because the equity method is not appropriate and because Pop's share of Son's income exceeds dividends received since acquisition  $[(\$520,000 \times 15\%) > \$40,000]$ .

- 5 c

Dividends received from Sun for the two years were \$10,500  $(\$70,000 \times 15\% - \text{all in 2017})$ , but only \$9,000 (15% of Sun's income of \$60,000 for the two years) can be shown on Pam's income statement as dividend income from the Sun investment. The remaining \$1,500 reduces the investment account balance.

- 6 c

$[\$100,000 + \$300,000 + (\$600,000 \times 10\%)]$

- 7 a

- 8 d

Investment balance January 2	\$250,000
Add: Income from Sun $(\$100,000 \times 30\%)$	<u>30,000</u>
Investment in Sun December 31	<u>\$280,000</u>

**Solution E2-3**

- 1 *Pop's percentage ownership in Son*

Pop's 20,000 shares /  $(60,000 + 20,000)$  shares = 25%

- 2 *Goodwill*

Investment cost	\$500,000
Book value $(\$1,000,000 + \$500,000) \times 25\%$	<u>(375,000)</u>
Goodwill	<u>\$125,000</u>

**Solution E2-4**

*Income from Sun for 2016*

Share of Sun's income $(\$100,000 \times 1/2 \text{ year} \times 30\%)$	<u>\$ 15,000</u>
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**Solution E2-5****1** *Income from Son*

Share of Son's reported income ( $\$200,000 \times 30\%$ )	\$ 60,000
Less: Excess allocated to inventory	(25,000)
Less: Depreciation of excess allocated to building ( $\$50,000/4$ years)	<u>(12,500)</u>
Income from Son	<u>\$ 22,500</u>

**2** *Investment account balance at December 31*

Cost of investment in Son	\$ 500,000
Add: Income from Son	22,500
Less: Dividends ( $\$50,000 \times 30\%$ )	<u>(15,000)</u>
Investment in Son December 31	<u>\$ 507,500</u>

*Alternative solution*

Underlying equity in Son at January 1 ( $\$375,000/.3$ )	\$1,250,000
Income less dividends	<u>150,000</u>
Underlying equity December 31	1,400,000
Interest owned	<u>30%</u>
Book value of interest owned December 31	420,000
Add: Unamortized excess	<u>87,500</u>
Investment in Son December 31	<u>\$ 507,500</u>

**Solution E2-6***Journal entry on Pam's books*

Investment in Sun ( $\$1,200,000 \times 40\%$ )	480,000	
Loss from discontinued operations	80,000	
Income from Sun		560,000

To recognize income from 40% investment in Sun.

**Solution E2-7**

<b>1</b>	a		
		Dividends received from Son ( $\$120,000 \times 15\%$ )	\$ 18,000
		Share of income since acquisition of interest	
		2016 ( $\$20,000 \times 15\%$ )	(3,000)
		2017 ( $\$80,000 \times 15\%$ )	<u>(12,000)</u>
		Excess dividends received over share of income	<u>\$ 3,000</u>
		Investment in Son January 3, 2016	\$ 50,000
		Less: Excess dividends received over share of income	<u>(3,000)</u>
		Investment in Son December 31, 2017	<u>\$ 47,000</u>
<b>2</b>	b		
		Cost of 10,000 of 40,000 shares outstanding	\$1,400,000
		Book value of 25% interest acquired ( $\$4,000,000$ stockholders' equity at December 31, 2016 + $\$1,400,000$ from additional stock issuance) $\times 25\%$	<u>1,350,000</u>
		Excess fair value over book value (goodwill)	<u>\$ 50,000</u>
<b>3</b>	d		
		The investment in Son balance remains at the original cost.	
<b>4</b>	c		
		Income from continuing operations	\$ 200,000
		Percent owned	<u>40%</u>
		Income from Son Products	<u>\$ 80,000</u>

**Solution E2-8***Preliminary computations*

Cost of 40% interest January 1, 2016	\$2,400,000
Book value acquired (\$4,000,000 × 40%)	<u>(1,600,000)</u>
Excess fair value over book value	<u>\$ 800,000</u>

*Excess allocated to*

Inventories \$100,000 × 40%	\$ 40,000
Equipment \$200,000 × 40%	80,000
Goodwill for the remainder	680,000
Excess fair value over book value	<u>\$ 800,000</u>

Pam's underlying equity in Sun (\$5,500,000 × 40%)	\$2,200,000
Add: Goodwill	680,000
Investment balance December 31, 2019	<u>\$2,880,000</u>

*Alternative computation*

Pam's share of the change in Sun's stockholders' equity (\$1,500,000 × 40%)	\$ 600,000
Less: Excess allocated to inventories (\$40,000 × 100%)	(40,000)
Less: Excess allocated to equipment (\$80,000/4 years × 4 years)	<u>(80,000)</u>
Increase in investment account	480,000
Original investment	<u>2,400,000</u>
Investment balance December 31, 2019	<u>\$2,880,000</u>

**Solution E2-9**

<b>1</b>	<i>Income from Son</i>	
	Share of income to common (\$400,000 - \$30,000 preferred dividends) × 30%	\$ 111,000
<b>2</b>	<i>Investment in Son December 31, 2017</i>	
	NOTE: The \$50,000 direct costs of acquiring the investment must be expensed when incurred. They are not a part of the cost of the investment.	
	Investment cost	\$1,200,000
	Add: Income from Son	111,000
	Less: Dividends from Son (\$200,000 dividends - \$30,000 dividends to preferred) × 30%	<u>(51,000)</u>
	Investment in Son December 31, 2017	<u>\$1,260,000</u>

**Solution E2-10**

<b>1</b>	<i>Income from Sun</i> (\$200,000 - \$150,000) × 25%	
	Investment income October 1 to December 31	\$ 12,500
<b>2</b>	<i>Investment balance December 31</i>	
	Investment cost October 1	\$ 300,000
	Add: Income from Sun	12,500
	Less: Dividends	---
	Investment in Sun at December 31	<u>\$ 312,500</u>

	December 31	October 1
Sales	\$ 600,000	\$450,000
Expenses	400,000	300,000
Net Income	<u>\$200,000</u>	<u>\$150,000</u>

**Solution E2-11***Preliminary computations*

Goodwill from first 10% interest:	
Cost of investment	\$ 25,000
Book value acquired (\$210,000 × 10%)	<u>(21,000)</u>
Excess fair value over book value	<u>\$ 4,000</u>
Goodwill from second 10% interest:	
Cost of investment	\$ 50,000
Book value acquired (\$250,000 × 10%)	<u>(25,000)</u>
Excess fair value over book value	<u>\$ 25,000</u>

<b>1.</b>	Correcting entry as of January 2, 2017 to convert investment to the equity method	
	Accumulated gain/loss on stock available for Sale	25,000
	Valuation allowance to record Son at fair value	25,000
	To remove the valuation allowance entered on December 31, 2016 under the fair value method for an available for sale security.	
	Investment in Son	4,000
	Retained earnings	4,000
	To adjust investment account to an equity basis computed as follows:	
	Share of Son's income for 2016	\$ 10,000
	Less: Share of dividends for 2016	<u>(6,000)</u>
		<u>\$ 4,000</u>
<b>2</b>	<i>Income from Son for 2017</i>	
	Income from Son on original 10% investment	\$ 5,000
	Income from Son on second 10% investment	5,000
	2017 Income from Son	<u>\$ 10,000</u>

**Solution E2-12***Preliminary computations*

Stockholders' equity of Sun on December 31, 2016		\$380,000
Sale of 12,000 previously unissued shares on January 1, 2017		<u>250,000</u>
Stockholders' equity after issuance on January 1, 2017		<u>\$630,000</u>

Cost of 12,000 shares to Pam		\$250,000
Book value of 12,000 shares acquired		
\$630,000 × 12,000/36,000 shares		<u>210,000</u>
Excess fair value over book value		<u>\$ 40,000</u>

*Excess is allocated as follows*

Buildings \$60,000 × 12,000/36,000 shares		\$ 20,000
Goodwill		<u>20,000</u>
Excess fair value over book value		<u>\$ 40,000</u>

*Journal entries on Pam's books during 2017**January 1*

Investment in Sun	250,000	
Cash		250,000
To record acquisition of a 1/3 interest in Sun.		

*During 2017*

Cash	30,000	
Investment in Sun		30,000
To record dividends received from Sun (\$90,000 × 1/3).		

*December 31*

Investment in Sun	38,000	
Income from Sun		38,000
To record investment income from Sun computed as follows:		
Share of Sun's income (\$120,000 × 1/3)		\$ 40,000
Depreciation on building (\$20,000/10 years)		<u>(2,000)</u>
Income from Sun		<u>\$ 38,000</u>



**Solution E2-13****1** *Journal entries on Pop's books for 2017*

Cash	120,000	
Investment in Son (30%)		120,000
To record dividends received from Son (\$400,000 × 30%).		
Investment in Son (30%)	240,000	
Discontinued operations loss (from Son)	24,000	
Income from Son		264,000
To record investment income from Son computed as follows:		
Share of income from continuing operations \$680,000 × 30%		\$ 204,000
Add: Excess fair value over cost realized in 2017 \$200,000 × 30%		<u>60,000</u>
Income from Son before discontinued operations		<u>\$ 264,000</u>

**2** *Investment in Son balance December 31, 2017*

Investment cost	\$ 780,000
Add: Income from Son after discontinued operations	240,000
Less: Dividends received from Son	<u>(120,000)</u>
Investment in Son December 31	<u>\$900,000</u>

Check: Investment balance is equal to underlying book value  
 $(\$2,800,000 + \$600,000 - \$400,000) \times 30\% = \$900,000$

**3****Pop Corporation**

## Income Statement

for the year ended December 31, 2017

Sales	\$4,000,000
Expenses	<u>2,800,000</u>
Operating income	1,200,000
Income from Son (before discontinued operations)	<u>264,000</u>
Income from continuing operations	1,464,000
Discontinued operations loss (net of tax effect)	<u>24,000</u>
Net income	<u>\$1,440,000</u>

**Solution E2-14****1**     *Income from Sun for 2017*

Equity in income (\$108,000 - \$8,000 preferred) × 40%	\$   40,000
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**2**     *Investment in Sun December 31, 2017*

Cost of investment in Sun	\$ 290,000
Add: Income from Sun	40,000
Less: Dividends (\$40,000* × 40%)	<u>(16,000)</u>
Investment in Sun December 31	<u>\$ 314,000</u>

\* \$48,000 total dividends less \$8,000 preferred dividend

**Solution E2-15**

Since the total fair value of Son has declined by \$60,000 while the fair value of the net identifiable assets is unchanged, the \$60,000 decline is the impairment in goodwill for the period. The \$60,000 impairment loss is deducted in calculating Pop's income from continuing operations.

**Solution E2-16**

Goodwill impairments are calculated at the business reporting unit level. Increases and decreases in fair values across business units are not offsetting. Pam must report an impairment loss of \$5,000 in calculating 2017 income from continuing operations.

**SOLUTIONS TO PROBLEMS****Solution P2-1**

<b>1</b>	<i>Goodwill</i>		
	Cost of investment in Son on April 1		\$686,000
	Book value acquired:		
	Net assets at December 31	\$2,000,000	
	Add: Income for 1/4 year ( $\$320,000 \times 25\%$ )	80,000	
	Less: Dividends paid March 15	<u>(40,000)</u>	
	Book value at April 1	2,040,000	
	Interest acquired	<u>30%</u>	
			<u>612,000</u>
	Goodwill from investment in Son		<u>\$ 74,000</u>
<b>2</b>	<i>Income from Son for 2016</i>		
	Equity in income from continuing operations		
	( $\$240,000 \times 3/4 \text{ year} \times 30\%$ )		\$ 54,000
<b>3</b>	<i>Investment in Son at December 31, 2016</i>		
	Investment cost April 1		\$ 686,000
	Add: Income from Son plus discontinued operations gain		78,000
	Less: Dividends ( $\$40,000 \times 3 \text{ quarters}$ ) $\times 30\%$		<u>(36,000)</u>
	Investment in Son December 31		<u>\$ 728,000</u>
<b>4</b>	<i>Equity in Son's net assets at December 31, 2016</i>		
	Son's stockholders' equity January 1		\$2,000,000
	Add: Net income		320,000
	Less: Dividends		<u>(160,000)</u>
	Son's stockholders' equity December 31		2,160,000
	Investment interest		<u>30%</u>
	Equity in Son's net assets		<u>\$ 648,000</u>
<b>5</b>	<i>Discontinued operations gain for 2016 to be reported by Pop</i>		
	Son's discontinued operations gain $\times 30\%$		<u>\$ 24,000</u>

**Solution P2-2****1** *Cost method*

Investment in Sun July 1, 2016 (at cost)		\$440,000
Dividends charged to investment		<u>(17,600)</u>
Investment in Sun balance at December 31, 2016		<u>\$422,400</u>

*July 1, 2016*

Investment in Sun	440,000	
Cash		440,000
To record initial investment for 80% interest.		

*November 1, 2016*

Dividends receivable	25,600	
Dividend income		25,600
To record receipt of dividends (\$32,000 × 80%).		

*December 31, 2016*

Dividend income	17,600	
Investment in Sun		17,600
To reduce investment for dividends in excess of earnings (\$32,000 dividends - \$10,000 earnings) × 80%.		

**2** *Equity method*

Investment in Sun July 1, 2016		\$440,000
Add: Share of reported income		8,000
Deduct: Dividends charged to investment		(25,600)
Deduct: Excess Depreciation		<u>(13,200)</u>
Investment in Sun balance at December 31, 2016		<u>\$409,200</u>

*July 1, 2016*

Investment in Sun	440,000	
Cash		440,000
To record initial investment for 80% interest of Sun.		

*November 1, 2016*

Dividends receivable	25,600	
Investment in Sun		25,600
To record receipt of dividends (\$32,000 × 80%).		

*December 31, 2016*

Income from Sun	5,200	
Investment in Sun		5,200
To record income from Sun computed as follows: Share of Sun's income (\$20,000 × 1/2 year × 80%) less excess depreciation (\$264,000/10 years × 1/2 year).		

**Solution P2-3***Preliminary computations*

Cost of investment in Son	\$331,000
Book value acquired ( $\$1,000,000 \times 30\%$ )	<u>300,000</u>
Excess fair value over book value	<u>\$ 31,000</u>

*Excess allocated*

Undervalued inventories ( $\$30,000 \times 30\%$ )	\$ 9,000
Overvalued building ( $-\$60,000 \times 30\%$ )	(18,000)
Goodwill for the remainder	<u>40,000</u>
Excess fair value over book value	<u>\$ 31,000</u>

**1** *Income from Son*

Share of Son's reported income ( $\$100,000 \times 30\%$ )	\$ 30,000
Less: Excess allocated to inventories sold in 2016	( 9,000)
Add: Depreciation of excess allocated to overvalued building $\$18,000/10$ years	<u>1,800</u>
Income from Son—2016	<u>\$ 22,800</u>

**2** *Investment balance December 31, 2016*

Cost of investment	\$331,000
Add: Income from Son	22,800
Less: Share of Son's dividends ( $\$50,000 \times 30\%$ )	<u>(15,000)</u>
Investment in Son balance December 31	<u>\$338,800</u>

**3** *Pop's share of Son's net assets*

Share of stockholders' equity	
$(\$1,000,000 + \$100,000 \text{ income} - \$50,000 \text{ dividends}) \times 30\%$	<u>\$315,000</u>

**Solution P2-4***Preliminary computations*

Investment cost of 40% interest		\$190,000
Book value acquired [ $\$250,000 + (\$50,000 \times 1/2 \text{ year})$ ] $\times 40\%$		<u>110,000</u>
Excess fair value over book value		<u>\$ 80,000</u>

*Excess allocated*

Land $\$15,000 \times 40\%$		\$ 6,000
Equipment $\$25,000 \times 40\%$		10,000
Remainder to goodwill		<u>64,000</u>
Excess fair value over book value		<u>\$ 80,000</u>

*July 1, 2016*

Investment in Sun	190,000	
Cash		190,000
To record initial investment for 40% interest in Sun.		

*November 2016*

Cash (other receivables)	10,000	
Investment in Sun		10,000
To record receipt of dividends ( $\$25,000 \times 40\%$ ).		

*December 31, 2016*

Investment in Sun	10,000	
Income from Sun		10,000
To record share of Sun's income ( $\$50,000 \times 1/2 \text{ year} \times 40\%$ ).		

*December 31, 2016*

Income from Sun	1,000	
Investment in Sun		1,000
To record depreciation on excess allocated to Undervalued equipment ( $\$10,000/5 \text{ years} \times 1/2 \text{ year}$ ).		

**Solution P2-5****1** *Schedule to allocate fair value—book value differentials*

Investment cost January 1	\$1,680,000
Book value acquired (\$3,900,000 net assets × 30%)	<u>1,170,000</u>
Excess fair value over book value	<u>\$ 510,000</u>

*Allocation of excess*

	Fair Value — Book Value	Percent Acquired	Allocation
Inventories	\$200,000	30%	\$ 60,000
Land	800,000	30%	240,000
Buildings—net	500,000	30%	150,000
Equipment—net	(700,000)	30%	(210,000)
Bonds payable	(100,000)	30%	<u>(30,000)</u>
Assigned to identifiable net assets			210,000
Remainder to goodwill			<u>300,000</u>
Excess fair value over book value			<u>\$ 510,000</u>

**2** *Income from Son for 2016*

Equity in income (\$1,200,000 × 30%)	\$ 360,000
Less: Amortization of differentials	
Inventories (sold in 2016)	(60,000)
Buildings—net (\$150,000/10 years)	(15,000)
Equipment—net (\$210,000/7 years)	30,000
Bonds payable (\$30,000/5 years)	<u>6,000</u>
Income from Son	<u>\$ 321,000</u>

**3** *Investment in Son balance December 31, 2016*

Investment cost	\$1,680,000
Add: Income from Son	321,000
Less: Dividends (\$600,000 × 30%)	<u>(180,000)</u>
Investment in Son December 31	<u>\$1,821,000</u>

*Check:*

Underlying equity (\$4,500,000 × 30%)	\$1,350,000
Unamortized excess:	
Land	240,000
Buildings—net (\$150,000 - \$15,000)	135,000
Equipment—net (\$210,000 - \$30,000)	(180,000)
Bonds payable (\$30,000 - \$6,000)	(24,000)
Goodwill	<u>300,000</u>
Investment in Son account	<u>\$1,821,000</u>

**Solution P2-6**

<b>1</b>	<i>Income from Sun</i>	
	Investment in Sun July 1, 2016 at cost	\$96,000
	Book value acquired (\$130,000 × 60%)	<u>78,000</u>
	Excess fair value over book value	<u>\$18,000</u>
	 <i>Pam's share of Sun's income for 2016</i>	
	(\$20,000 × 1/2 year × 60%)	\$ 6,000
	Less: Excess Depreciation (\$18,000/10 years × 1/2 year)	<u>900</u>
	Income from Sun for 2016	<u>\$ 5,100</u>
 <b>2</b>	 <i>Investment balance December 31, 2016</i>	
	Investment cost July 1	\$96,000
	Add: Income from Sun	5,100
	Less: Dividends (\$12,000 × 60%)	<u>(7,200)</u>
	Investment in Sun December 31	<u>\$93,900</u>

**Solution P2-7**

**Pop Corporation**  
 Partial Income Statement  
 for the year ended December 31, 2018

<i>Investment income</i>	
Income from Son (equity basis)	<u>\$90,000</u>
Income from continuing operations	<u>90,000</u>
 <i>Discontinued operations gain</i>	
Share of Son's discontinued operations gain	<u>60,000</u>
Net income	<u>\$150,000</u>



**Solution P2-8***Preliminary computations*

Investment cost of 90% interest in Sun	<u>\$1,980,000</u>
Implied total fair value of Sun (\$1,980,000 / 90%)	\$2,200,000
Book value (\$2,525,000 + \$125,000)	<u>(2,650,000)</u>
Excess book value over fair value	<u>\$ (450,000)</u>

*Excess allocated*

Overvalued plant assets	\$ (500,000)
Undervalued inventories	<u>50,000</u>
Excess book value over fair value	<u>\$ (450,000)</u>

**1** *Investment income for 2016*

Share of reported income (\$250,000 × 1/2 year × 90%)	\$ 112,500
Add: Depreciation on overvalued plant assets ((\$500,000 × 90%) / 9 years) × 1/2 year	25,000
Less: 90% of Undervaluation allocated to inventories	<u>(45,000)</u>
Income from Sun—2016	<u>\$ 92,500</u>

**2** *Investment balance at December 31, 2017*

Underlying book value of 90% interest in Sun (Sun's December 31, 2017 equity of \$2,700,000 × 90%)	\$2,430,000
Less: Unamortized overvaluation of plant assets (\$50,000 per year × 7 1/2 years)	<u>(375,000)</u>
Investment balance December 31, 2017	<u>\$2,055,000</u>

**3** *Journal entries to account for investment in 2018*

Cash (or Dividends receivable)	135,000	
Investment in Sun		135,000
To record receipt of dividends (\$150,000 × 90%).		
Investment in Sun	230,000	
Income from Sun		230,000
To record income from Sun computed as follows: Pam's share of Sun's reported net income (\$200,000 × 90%) plus \$50,000 amortization of overvalued plant assets.		

Check: Investment balance December 31, 2017 of \$2,055,000 + \$230,000 income from Sun - \$135,000 dividends = \$2,150,000 balance December 31, 2018

Alternatively, Sun's underlying equity (\$2,000,000 paid-in capital + \$750,000 retained earnings) × 90% interest - \$325,000 unamortized excess allocated to plant assets = \$2,150,000 balance December 31, 2018.

**Solution P2-9**

<b>1</b>	<i>Market price of \$24 for Pop's shares</i>	
	Cost of investment in Son	
	(40,000 shares × \$24) The \$80,000 direct costs must be expensed.	\$ 960,000
	Book value acquired (\$2,000,000 net assets × 40%)	<u>800,000</u>
	Excess fair value over book value	<u>\$ 160,000</u>

*Allocation of excess*

	Fair Value — <u>Book Value</u>	Percent <u>Acquired</u>	<u>Allocation</u>
Inventories	\$ 200,000	40%	\$ 80,000
Land	400,000	40%	160,000
Buildings — net	(400,000)	40%	(160,000)
Equipment — net	200,000	40%	<u>80,000</u>
Assigned to identifiable net assets			160,000
Remainder assigned to goodwill			<u>0</u>
Total allocated			<u>\$ 160,000</u>

<b>2</b>	<i>Market price of \$16 for Pop's shares</i>	
	Cost of investment in Son	
	(40,000 shares × \$16) Other direct costs are \$0	\$ 640,000
	Book value acquired (\$2,000,000 net assets × 40%)	<u>800,000</u>
	Excess book value over fair value	<u>\$ (160,000)</u>

*Excess allocated to*

	Fair Value — <u>Book Value</u>	Percent <u>Acquired</u>	<u>Allocation</u>
Inventories	\$200,000	40%	\$ 80,000
Land	400,000	40%	160,000
Buildings — net	(400,000)	40%	(160,000)
Equipment — net	200,000	40%	80,000
Bargain purchase gain			<u>(320,000)</u>
			<u>\$ (160,000)</u>

**Solution P2-10**

<b>1</b>	<i>Income from Sun—2016</i>		
	Pam's share of Sun's income for 2016		
	\$40,000 × 1/2 year × 15%		<u>\$ 3,000</u>
<b>2</b>	<i>Investment in Sun balance December 31, 2016</i>		
	Investment in Sun at cost		\$ 48,750
	Add: Income from Sun		3,000
	Less: Dividends from Sun November 1 (\$15,000 × 15%)		<u>(2,250)</u>
	Investment in Sun balance December 31		<u>\$ 49,500</u>
<b>3</b>	<i>Income from Sun—2017</i>		
	Pam's share of Sun's income for 2017:		
	\$60,000 income × 15% interest × 1 year		\$ 9,000
	\$60,000 income × 30% interest × 1 year		18,000
	\$60,000 income × 45% interest × 1/4 year		<u>6,750</u>
	Pam's share of Sun's income for 2017		<u>\$ 33,750</u>
<b>4</b>	<i>Investment in Sun December 31, 2017</i>		
	Investment balance December 31, 2016 (from 2)		\$ 49,500
	Add: Additional investments (\$99,000 + \$162,000)		261,000
	Add: Income for 2017 (from 3)		33,750
	Less: Dividends for 2017 (\$15,000 × 45%) + (\$15,000 × 90%)		<u>(20,250)</u>
	Investment in Sun balance at December 31		<u>\$324,000</u>
	<i>Alternative solution</i>		
	Investment cost (\$48,750 + \$99,000 + \$162,000)		\$309,750
	Add: Share of reported income		
	2016—\$40,000 × 1/2 year × 15%	\$ 3,000	
	2017—\$60,000 × 1 year × 45%	27,000	
	2017—\$60,000 × 1/4 year × 45%	<u>6,750</u>	36,750
	Less: Dividends		
	2016—\$15,000 × 15%	\$ 2,250	
	2017—\$15,000 × 45%	6,750	
	2017—\$15,000 × 90%	<u>13,500</u>	<u>(22,500)</u>
	Investment in Sun		<u>\$324,000</u>

Note: Since Pam's investment in Sun consisted of 9,000 shares (a 45% interest) on January 1, 2017, Pam correctly used the equity method of accounting for the 15% investment interest held during 2016. The alternative of reporting income for 2016 on a fair value/cost basis and applying the equity method retroactively for 2017 is not appropriate in view of the overwhelming evidence of an ability to exercise significant influence by the time 2016 income is recorded.

**Solution P2-11***Income from Sun*

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Total</u>
As reported	\$ 80,000	\$64,000	\$104,000	\$96,000	\$344,000
Correct amounts	<u>40,000<sup>a</sup></u>	<u>64,000<sup>b</sup></u>	<u>104,000<sup>c</sup></u>	<u>96,000<sup>d</sup></u>	<u>304,000</u>
Overstatement	<u>\$120,000</u>	<u>\$ -0-</u>	<u>\$ -0-</u>	<u>\$ -0-</u>	<u>\$ 40,000</u>

<sup>a</sup>(\$200,000 × 1/2 year × 40%)

<sup>b</sup>(\$160,000 × 40%)

<sup>c</sup>(\$260,000 × 40%)

<sup>d</sup>(\$240,000 × 40%)

**1** *Investment in Sun balance December 31, 2019*

Investment in Sun per books December 31	\$800,000
Less: Overstatement	<u>40,000</u>
Correct investment in Sun balance December 31	<u>\$760,000</u>

*Check*

Underlying equity in Sun (\$1,800,000 × 40%)	\$720,000
Add: Goodwill (\$600,000 - (\$1,400,000 × 40%))	<u>40,000</u>
Investment balance	<u>\$760,000</u>

**2** *Correcting entry (before closing for 2019)*

Retained earnings	40,000	
Investment in Sun		40,000
To record investment and retained earnings accounts for prior error.		

**Solution P2-12****1** *Schedule to allocate excess cost over book value*

Investment cost (14,000 shares × \$13) \$10,000 direct costs	\$182,000
must be expensed.	
Book value acquired \$190,000 × 70%	<u>133,000</u>
Excess fair value over book value	<u>\$ 49,000</u>

*Excess allocated*

	<u>Fair Value</u> —	<u>Book Value</u> ×	<u>Interest</u>	<u>Acquired</u> =	<u>Allocation</u>
Inventories	\$ 50,000	\$60,000	70%		\$ (7,000)
Land	50,000	30,000	70%		14,000
Equipment — net	135,000	95,000	70%		28,000
Remainder to goodwill					<u>14,000</u>
Excess fair value over book value					<u>\$ 49,000</u>

**2** *Investment income from Son*

Share of Son's reported income \$60,000 × 70%	\$ 42,000
Add: Overvalued inventory items	7,000
Less: Depreciation on undervalued equipment (\$28,000/4 years) × 3/4 year	<u>(5,250)</u>
Investment income from Son	<u>\$ 43,750</u>

**3** *Investment in Son account at December 31, 2016*

Investment cost	\$182,000
Add: Income from Son	43,750
Less: Dividends received (14,000 shares × \$2)	<u>(28,000)</u>
Investment in Son balance December 31	<u>\$197,750</u>

*Check*

Underlying equity at December 31, 2016 (\$210,000* × 70%)	\$147,000
Add: Unamortized excess of cost over book value	
Land	14,000
Equipment	22,750
Goodwill	<u>14,000</u>
Investment balance	<u>\$197,750</u>

\* \$100,000 (C/S) + \$70,000 (R/E) + \$80,000 (current earnings)  
 -\$40,000 (Dividends) = \$210,000

**Solution PR 2-1**

Yes, since this is a noncontrolling interest, the equity method can be used. (ASC 323-10).

**Solution PR 2-2**

(ASC 320-30-4) The initial basis under the new accounting method should be the amount carried over from the equity method amount at the date of the change.