

Accountancy 422
Earnings Per Share
Supplemental Problem—Solution

Basic EPS:

Numerator:

Net income as reported		\$12,750,000
Less: Preferred dividends paid:		
June 30 (1,400,000 × \$0.50).....	\$700,000	
Sept. 30 (1,400,000 × \$0.50).....	700,000	
Dec. 31 (650,000 × \$0.50).....	<u>325,000</u>	<u>1,725,000</u>
Numerator for Basic EPS.....		<u>\$11,025,000</u>

Denominator:

Shares outstanding at December 31, 2002.....		8,800,000
Less: Shares issued on conversion of preferred stock (750,000 × 2)		<u>1,500,000</u>
Shares outstanding at Jan. 1, 2002.....		<u>7,300,000</u>
Computation of weighted-average number of shares:		
Beginning balance 7,300,000 * 12/12		7,300,000
October conversion 300,000 * 3/12		75,000
November conversion 1,200,000 * 2/12		<u>200,000</u>
Weighted-average number of shares		<u>7,575,000</u>
Basic EPS (\$11,025,000 ÷ 7,575,000).....		<u>\$1.46</u>

Diluted Earnings Per Share:

Test for antidilution:

Convertible preferred stock

Dividend (numerator effect, see above)	\$1,725,000
Conversion shares	
4/2—1,400,000 * 2 * 9/12 =	2,100,000
10/1—(150,000) * 2 * 3/12 =	(75,000)
11/1—(600,000) * 2 * 2/12 =	<u>(200,000)</u>
Total conversion shares (denominator effect)	1,825,000
Test: $\$1,725,000 \div 1,825,000 = 0.95 < \$1.46 \Rightarrow$ dilutive	

Convertible debentures

Interest (numerator effect, $\$20,000,000 * 9\% * (1-30\%)$)	\$1,260,000
Total conversion shares (denominator effect, $20000 * 60$)	1,200,000
Test: $\$1,260,000 \div 1,200,000 = \$1.05 < \$1.46 \Rightarrow$ dilutive	

Stock options:

Number of shares if converted	500,000 shares
Proceeds if converted ($500,000 * 20$) = \$10,000,000	
Shares purchased with proceeds ($\$10,000,000 \div \25)	<u>400,000 shares</u>
Shares added to denominator	<u>100,000 shares</u>

Load into model:

	<u>Numerator</u>	<u>Denominator</u>	<u>EPS</u>
Simple capital structure	\$11,025,000	7,575,000	\$1.46
Stock options	0	100,000	
	<hr/> \$11,025,000	<hr/> 7,675,000	\$1.44
Convertible preferred stock	\$1,725,000	1,825,000	
	<hr/> \$12,750,000	<hr/> 9,500,000	\$1.34
Convertible debentures	\$1,260,000	1,200,000	
Diluted EPS	<hr/> <u>\$14,010,000</u>	<hr/> <u>10,700,000</u>	<u>\$1.31</u>