Financial Statement Analysis

Analyzing Income Statements

Exam Focus

- Revenue recognition
- Expense recognition and the accruals process
- Capitalization vs. expensing
- EPS calculations

Basics

- Revenue = turnover = sales = net sales
- Net sales = gross sales – (returns + allowances + discounts)
  - Allowances include warranty provisions
  - Discounts = early payment discounts
- Returns, allowances, and discounts = estimation/judgment
- Sales recognized in the period they are earned, not necessarily when customer pays (accruals concept)
- Revenue is only recognized if it is *highly probable* that it will not be reversed

IFRS/U.S. GAAP Converged Standard

- Companies should recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration.
- Five steps
  1. Identify the contract with the customer.
  2. Identify distinct performance obligations.
  3. Determine transaction price.
  4. Allocate transaction price to performance obligations.
  5. Recognize revenue as obligations are satisfied.
- A contract only exists if payment is probable.

Principal vs. Agent: Example

MegaDigital is an online marketplace that sells goods and delivers them quickly to customers. For some sales, MegaDigital acts as a principal in which it controls the product before the goods are transferred to the customer. In other sales, MegaDigital acts as an agent in which it arranges for the transfer of a product controlled by a third-party seller.

Assume MegaDigital sells a particular product for $100 that cost $70. Additionally, there are $10 of other selling, general, and administrative costs.

Compute the income statement impact for a principal sale and agency sale with a commission of $30.

Principal vs. Agent: Solution

	Principal		Agent	
	$	%	$	%
Sale		100		100
Cost of sales		70		0
Gross profit		30		100
SG&A	10	10	10	33
Net profit		20		67

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Franchise/Licensing: Discussion

Mahjong Pizza both operates and franchises pizza delivery restaurants around the world. Revenue recognition standards require that the company disaggregate revenue from contracts with customers into categories that depict how the nature, amount, timing, and uncertainty of revenue and cash flows are affected by economic factors. Companies must present revenues disaggregated in consolidated statements of income to satisfy this requirement. Mahjong Pizza presents the following disaggregated revenue items:

- company-owned stores revenues,
- franchise royalties and fees,
- supply chain revenues.

Software as a Service or License: Discussion

CReaM Software and Services is a technology company providing customer relationship management software and services to business, government and not-for-profit organizations. Organizations may purchase a software license and install it on their own systems. Alternatively, they may subscribe to CReaM's cloud services platform through which they can access CReaM's software over the internet for a monthly subscription fee.

Long-Term Contracts: Discussion

Armored Vehicles Inc. (AVI) manufactures weapons systems and vehicles for military customers. The company enters long-term contracts that generally extend over several years. Performance on the contracts is satisfied over time.

Long-Term Contracts: Example

AVI has a contract to produce a weapons system for a total price of $10 million. The expected total costs to produce the system is $7 million and the estimated profit is $3 million. The system will take two years to produce. In Year 1 of the contract, AVI incurs $4.2 million of costs of a total estimated costs. In Year 2, the system is completed with actual total cumulative costs of $7.5 million

Compute revenue and profit for each year.

Long-Term Contracts: Solution

	Year 1 $m	Year 2 $m
Revenue		
Cost of sales		
Gross profit		

Year 1:

Revenue =

Cumulative revenue =

Year 2 revenue

Cost of sales =

Cumulative cost =

Bill and Hold: Discussion

AVI produces custom armored vehicles that some customers may not be able to take possession of immediately (because, for example, a lack of storage space). IFRS 15 provides that in such a "bill and hold" arrangement AVI can determine when it has satisfied its performance obligation based on when a customer obtains control of the product.

IFRS criteria for revenue recognition:

1. The customer must request the arrangement
2. Products must be clearly identified as belonging to the customer
3. The product must be ready for delivery
4. The supplier cannot use the product or direct it to another customer

Revenue Recognition Disclosure

- Information on nature of contracts, amounts, and timings of cash flows from customers
  - Contracts with customers, disaggregated into categories
  - Contract-related assets and liabilities
    - Balances and changes
    - Remaining performance obligations, transaction prices allocated to them
    - Significant judgments, changes in judgments

Expense Recognition

- Accrual basis—matching principle
  - Match costs against associated revenues
  - Examples
    - Inventory (COGS)
    - Depreciation/amortization
    - Warranty expense
    - Doubtful debt provision and expense
- Period expenses
  - Expenditures that less directly match the timing of revenues (e.g., administrative costs); match against time period

Matching Principle: Example

The Matching of Inventory Costs with Revenues Kahn Distribution Limited (KDL), a hypothetical company, purchases inventory items for resale. At the beginning of 20X1, Kahn had no inventory on hand. During 20X1, KDL had the following transactions:

Inventory Purchases		
1st quarter	2,000 units	@$40 per unit
2nd quarter	1,500	@$41 per unit
3rd quarter	2,200	@$43 per unit
4th quarter	1,900	@$45 per unit
Total	7,600	$321,600

KDL sold 5,600 units of inventory during the year at $50 per unit and received cash. KDL determines that there were 2,000 remaining units of inventory and specifically identifies that 1,900 were those purchased in the fourth quarter and 100 were purchased in the third quarter.

Matching Principle: Solution

Income Statement	Units	$	$
Sales	5,600		280,000
Beginning inv'	0	0	
Purchases	7,600	321,600	
Available for sale	7,600	321,600	
Ending inv'	2,000	(89,800)	
COGS			
Gross profit			

Ending Inventory	$
units @	
units @	
Total	

Cost of Goods Sold	$
@	
@	
@	
Total	

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Capitalizing vs. Expensing

Costs are **capitalized** as a balance sheet asset or **expensed** in the income statement.

- **Capitalizing:** spreading an asset's cost in the income statement over multiple periods, creating a balance sheet asset (matching principle)
- **Expensing:** taking an asset's cost as an expense on the income statement in the current period

Cost incurred

Expense if benefits beyond one period are unlikely or highly uncertain

Capitalize if benefits extend over multiple periods

Capitalization vs. Expensing: Example

Turton Limited purchased equipment costing £900 at the start of the year. The data on the following slides shows Turton's financial statements before the purchase is accounted for.

Income Statement: Year	1	2	3
Revenue	2,000	2,000	2,000
Cash expenses	800	800	800
Depreciation	0	0	0
EBT	1,200	1,200	1,200
Tax @ 30%	360	360	360
Net income	840	840	840

Simplifying assumptions:

- Sales = cash sales (not credit)
- Expenses are paid during the year
- Depreciation is the only noncash charge and is tax allowable

Capitalization vs. Expensing: Example

Turton was incorporated at the beginning of Year 1 by issuing equity of £1,500 in return for cash.

Balance Sheet: Year	1	2	3
Cash	2,340	3,180	4,020
Total assets	2,340	3,180	4,020
Retained Earnings	840	1,680	2,520
Common stock	1,500	1,500	1,500
Total equity	2,340	3,180	4,020

Cash Flow: Year	1	2	3
CFO	840	840	840
CFI	0	0	0
CFF	1,500	0	0
Change in cash	2,340	840	840
Opening cash	0	2,340	3,180
Closing cash	2,340	3,180	4,020

Demonstrate how the accounts change if the £900 is capitalized or expensed, and compute both net profit margin and ROE under both assumptions.

Capitalization: Solution

Assume PP&E is depreciated straight-line over 3 years with no salvage value

$$\text{depreciation expense} = \frac{£900 - £0}{3} = £300 \text{ p.a.}$$

I/S Year	1	2	3
Revenue	2,000	2,000	2,000
Cash expenses	800	800	800
Depreciation			
EBT			
Tax @30%			
Net income			

$\text{Net profit margin}_{1-3} =$

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Capitalization: Solution

Balance Sheet: Year	1	2	3
Cash			
PP&E			
Total assets			
Retained Earnings			
Common stock	1,500	1,500	1,500
Total equity			

Cash Flow: Year	1	2	3
CFO			
CFI		0	0
CFF		0	0
Change in cash			
Opening cash	0		
Closing cash			

$$ROE_1 = \frac{630}{} =$$

$$ROE_2 = \frac{630}{} =$$

$$ROE_3 = \frac{630}{} =$$

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Expensing: Solution

I/S Year	1	2	3
Revenue	2,000	2,000	2,000
Cash expenses		800	800
Depreciation	0	0	0
EBT		900	900
Tax @30%		360	360
Net income		840	840

Net profit margin$_1$ = ——— = or Net profit margin$_{2–3}$ = ——— = or

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Expensing: Solution

Balance Sheet: Year	1	2	3
Cash			
PP&E	0	0	0
Total Assets			
Retained Earnings			
Common Stock	1,500	1,500	1,500
Total equity			

Cash Flow: Year	1	2	3
CFO			
CFI			
CFF	1,500	0	0
Change in cash			
Opening cash	0		
Closing cash			

ROE$_1$ = ——— = or

ROE$_2$ = ——— = or

ROE$_3$ = ——— = or

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Capitalizing vs. Expensing: Impacts

	Capitalizing	Expensing
Assets & equity	Higher	Lower
Net income (first year)	Higher	Lower
Net income (other years)	Lower	Higher
Income variability	Lower	Higher
ROA & ROE (first year)	Higher	Lower
ROA & ROE (other years)	Lower	Higher
Debt ratio & debt-to-equity	Lower	Higher
CFO	Higher	Lower
CFI	Lower	Higher

Construction of Assets

- **Interest expense** on funds spent constructing a capital asset is capitalized as part of one of these:
  - Asset's value on the balance sheet (self-use)
  - Asset's value in inventory (for sale to others)
  - Once asset is complete, any further interest incurred must be expensed
- Under IFRS, capitalized interest is reduced by any income on borrowings invested temporarily

Capitalized Interest: Example

Melco Resorts & Entertainment Limited (NASDAQ: MLCO), a Hong Kong SAR–based casino company, which is listed on the NASDAQ stock exchange and prepares financial reports under US GAAP, disclosed the following information in one of the footnotes to its 2017 financial statements: "Interest and amortization of deferred financing costs associated with major development and construction projects is capitalized and included in the cost of the project. . .

Use the information on the next slide to compute the following:

1. Interest coverage without adjusting for capitalized interest
2. Interest coverage after adjusting for capitalized interest

Capitalized Interest: Example

	Source of Data	2017 $'000	2016 $'000	2015 $'000
EBIT	I/S	544,865	298,663	58,533
Interest expense	I/S	229,582	223,567	118,330
Capitalized interest	Footnote	37,483	29,033	134,838
Amortization of deferred financing costs	Footnote	26,182	48,345	38,511

Capitalized Interest: Solution

Interest coverage before adjustment:

$$2017 = \frac{544,865}{229,582} = 2.37$$

$$2016 = \frac{298,663}{223,567} = 1.34$$

$$2015 = \frac{58,553}{118,330} = 0.49$$

Interest coverage after adjustment:

2017 = ——————— =

2016 = ——————— =

2015 = ——————— =

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Internally Created Intangible Assets

- Internally developed intangibles expensed as incurred except R&D, software development costs
- **Research** costs involve discovery of new knowledge and understanding
- **Development** costs involve translation of research findings into a plan
- **IFRS:** research costs expensed, but development costs (after technical feasibility established) may be capitalized
- **U.S. GAAP:** research and development costs expensed

Software Development

- Exception for **U.S. GAAP** is software created internally

- **Software created for sale**
  - Expense costs as incurred until technical feasibility is established, then capitalize development costs

- **Software created for internal use**
  - Expense costs as incurred until probable that project will be completed and used as intended, then capitalize development costs

Other Areas of Significant Judgment

- Inventory valuation
- Warranty expense
- Depreciation
- Amortization
- Doubtful debt provisions
- Revenue recognition

All require significant estimates and assumptions affecting net income

Review year-on-year consistency

Review footnotes and MD&A

Unusual or Infrequent Items

- Reported pretax before net income from continuing operations (above the line)
- Unusual or infrequent items may include the following:
  - Gain (loss) from **disposal of a *business segment or assets***
  - Gain (loss) from **sale of investment in subsidiary**
  - Provisions for **environmental remediation**
  - **Impairments**, write-offs, write-downs, restructuring
  - **Integration expense** for recently acquired businesses

Discontinued Operations

Operations that management has decided to dispose of, but

1. has not done so yet, or
2. did so in the current year after it generated a profit or loss.

- Performance reported net of taxes after net income from continuing operations (below the line)
- Assets, operations, and financing activities must be physically and operationally distinct from firm; assets and liabilities reclassified as held for sale before disposal

Changes in Accounting Policy

Retrospective application: adjust prior years' data shown in the financial statements

Example: change in inventory cost flow method

Prospective application: does not require restatement of prior-period earning

Example: change in accounting estimates

Modified retrospective application: no prior statement adjustment; adjust beginning account values

Example: new revenue recognition rules

Correction of Prior-Period Errors

Prior-period adjustments

- Correcting errors or changing from an **incorrect accounting method** to one that is acceptable under GAAP
- Typically **requires restatement of prior-period financial statements**
- Must **disclose** the nature of the error and its effect on net income
- May highlight weak internal controls

Earnings Per Share

$$\text{basic EPS} = \frac{\text{earnings attributable to common shareholders}}{\text{weighted average number of common shares}}$$

$$\text{basic EPS} = \frac{\text{net income} - \text{preferred dividends}}{\text{weighted average number of common shares}}$$

Three big questions:

Basic EPS:

How many common shares?

Diluted EPS:

Which securities could create more shares?

Would that reduce earnings available to common?

Basic EPS Calculation: Example

For the year ended 31 December 2018, Angler Products had net income of $2,500,000. The company declared and paid $200,000 of dividends on preferred stock. The company also had the common stock share information shown here:

Angler's Common Stock Shares	
Shares outstanding 1st January 2018	1,000,000
Shares issued 1st April 2018	200,000
Shares repurchased 1st October 2018	(100,000)
Shares outstanding 31st December 2018	1,100,000

Basic EPS Calculation: Solution

Profit attributable to common stockholders: $2,500,000 – =

Weighted Common Stock Shares Outstanding		Weighted
Shares outstanding 1st January 2018	1,000,000	
Shares issued 1st April 2018	200,000	
Shares repurchased 1st October 2018	(100,000)	
Weighted average outstanding		

basic EPS = ———— =

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Stock Dividends and Splits

- A 10% stock dividend increases shares outstanding by 10%.
- A 2-for-1 stock split increases shares outstanding by 100%.
- In calculating the weighted average shares outstanding, stock dividends and splits are applied retroactively to the beginning of the year, or the stock's issue date for new stock.
- Although weighted average shares are actually based on days, the exam is likely to use months.

Stock Dividends and Splits: Example

1/1/X3	Shares outstanding	14,000
4/1/X3	Shares issued	5,000
7/1/X3	10% stock dividend	
10/1/X3	Shares repurchased	4,000

Shares adjusted for the 10% dividend:	
1/1/X3	Initial shares ( )
4/1/X3	Shared issued ( )
10/1/X3	Shares repurchased ( )

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Stock Dividends and Splits: Solution

Initial shares: 15,400 ×

Shares issued: 5,500 ×

Shares repurchased: (4,000) ×

Weighted average shares outstanding

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Dilutive EPS

A simple capital structure contains no *potentially* dilutive securities:

- Firm reports only basic EPS

A complex capital structure contains *potentially* dilutive securities:

- Firm must report both basic and diluted EPS
- Use "if-converted method"

Dilutive vs. Antidilutive Securities

Potentially dilutive securities:

- Stock options
- Warrants
- Convertible debt
- Convertible preferred stock

Dilutive securities decrease EPS if exercised or converted to common stock.

Antidilutive securities increase EPS if exercised or converted to common stock.

Convertible Preferred Stock: Example

For the year ended 31 December 2018, Bright-Warm Utility Company (fictitious) had net income of $1,750,000. The company had an average of 500,000 shares of common stock outstanding, 20,000 shares of convertible preferred, and no other potentially dilutive securities. Each share of preferred pays a dividend of $10 per share, and each is convertible into five shares of the company's common stock. Calculate the company's basic and diluted EPS.

Step 1: Compute basic EPS

= ———————————— =

Step 2: Consider impacts on numerator and denominator

= ———————— =

Impacts basic EPS =

Convertible Preferred Stock: Solution

Step 3: Dilutive EPS Adjustments	$
Basic EPS numerator	1,550,000
Preference dividend saved	
Adjusted numerator	
Basic EPS denominator	500,000
Shares if converted	
Adjusted denominator	

= ———————— =

Convertible Debt: Example

Oppnox Company (fictitious) reported net income of $750,000 for the year ended 31 December 2018. The company had a weighted average of 690,000 shares of common stock outstanding. In addition, the company has only one potentially dilutive security: $50,000 of 6 percent convertible bonds, convertible into a total of 10,000 shares. Assuming a tax rate of 30 percent, calculate Oppnox's basic and diluted EPS:

Step 1: Compute basic EPS

= ———— =

Step 2: Consider impacts on numerator and denominator

= ———————— =

Impacts basic EPS =

-3

Convertible Debt: Solution

Step 3: Dilutive EPS Adjustments	$
Basic EPS numerator	750,000
Net interest saved	
Adjusted numerator	
Basic EPS denominator	690,000
Shares if converted	
Adjusted denominator	

= ———— =

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Treasury Stock Method

Dilutive only when the exercise price is less than the average market price

Steps:

1. Calculate number of common shares created if options are exercised
2. Calculate cash received from exercise
3. Calculate number of shares that can be purchased at the average market price with exercise proceeds
4. Calculate net increase in common shares outstanding

Stock Options and Warrants: Example

Hihotech Company (fictitious) reported net income of $2.3 million for the year ended 30 June 2018 and had a weighted average of 800,000 common shares outstanding. At the beginning of the fiscal year, the company has outstanding 30,000 options with an exercise price of $35. No other potentially dilutive financial instruments are outstanding. Over the fiscal year, the company's market price has averaged $55 per share. Calculate the company's basic and diluted EPS.

Step 1: Check for dilution:

Average stock price Strike price (exercise price)

Therefore =

-1

Stock Options and Warrants: Solution

Step 2: Treasury Stock Method	$	Shares
Shares created on exercise		30,000
Cash received on exercise		
Shares repurchased		
Net impact on denominator		

Dilutive EPS:

_____ =

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Income Statement Ratios

Common size statements:

Vertical = all items as a % of revenue

Time series and cross-sectional uses

$$\text{net profit margin} = \frac{\text{net income}}{\text{revenue}}$$

$$\text{operating profit margin} = \frac{\text{operating profit}}{\text{revenue}}$$

$$\text{gross profit margin} = \frac{\text{gross profit}}{\text{revenue}}$$

Solutions

Principal vs. Agent: Solution

	Principal		Agent	
	$	%	$	%
Sale	100	100	30	100
Cost of sales	70	70	0	0
Gross profit	30	30	30	100
SG&A	10	10	10	33
Net profit	20	20	20	67

Long-Term Contracts: Solution

	Year 1 $m	Year 2 $m
Revenue	6	4
Cost of sales	4.2	3.3
Gross profit	1.8	0.7

Year 1:

$$\text{Revenue} = \$10\text{m} \times \frac{\$4.2\text{m}}{\$7\text{m}} = \$6\text{m}$$

$$\text{Cost of sales} = \$7\text{m} \times 0.6 = \$4.2\text{m}$$

$$\text{Cumulative revenue} = \$10\text{m} \times \frac{\$7.5\text{m}}{\$7.5\text{m}} = \$10\text{m}$$

Year 2 revenue = $10m – $6m = $4m

$$\text{Cumulative cost} = \$7.5\text{m} - \$4.2\text{m} = \$3.3\text{m}$$

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Matching Principle: Solution

Income Statement	Units	$	$
Sales	5,600		280,000
Beginning inv'	0	0	
Purchases	7,600	321,600	
Available for sale	7,600	321,600	
Ending inv'	2,000	(89,800)	
COGS	5,600		(231,800)
Gross profit			48,200

Ending Inventory	$
100 units @ $43	4,300
1,900 units @ $45	85,500
Total	89,800

Cost of Goods Sold	$
2,000 @ $40	80,000
1,500 @ $41	61,500
2,100 @ $43	90,300
Total	231,800

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Capitalization: Solution

Assume PP&E is depreciated straight-line over 3 years with no salvage value

$$\text{depreciation expense} = \frac{£900 - £0}{3} = £300 \text{ p.a.}$$

I/S Year	1	2	3
Revenue	2,000	2,000	2,000
Cash expenses	800	800	800
Depreciation	300	300	300
EBT	900	900	900
Tax @30%	270	270	270
Net income	630	630	630

$$\text{Net profit margin}_{1-3} = \frac{630}{2{,}000} = 0.315 \text{ or } 31.5\%$$

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Capitalization: Solution

Balance Sheet: Year	1	2	3
Cash	1,530	2,460	3,390
PP&E	600	300	0
Total assets	2,130	2,760	3,390
Retained earnings	630	1,260	1,890
Common stock	1,500	1,500	1,500
Total equity	2,130	2,760	3,390

Cash Flow: Year	1	2	3
CFO	930	930	930
CFI	-900	0	0
CFF	1,500	0	0
Change in cash	1,530	930	930
Opening cash	0	1,530	2,460
Closing cash	1,530	2,460	3,390

$$ROE_1 = \frac{630}{(0 + 2{,}130)/2} = 0.592 \text{ or } 59.2\%$$

$$ROE_2 = \frac{630}{(2{,}130 + 2{,}760)/2} = 0.258 \text{ or } 25.8\%$$

$$ROE_3 = \frac{630}{(2{,}760 + 3{,}390)/2} = 0.205 \text{ or } 20.5\%$$

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Expensing: Solution

I/S Year	1	2	3
Revenue	2,000	2,000	2,000
Cash expenses	1,700	800	800
Depreciation	0	0	0
EBT	300	900	900
Tax @30%	90	360	360
Net income	210	840	840

$$\text{Net profit margin}_1 = \frac{210}{2{,}000} = 0.105 \text{ or } 10.5\% \qquad \text{Net profit margin}_{2-3} = \frac{840}{2{,}000} = 0.42 \text{ or } 42\%$$

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Expensing: Solution

Balance Sheet: Year	1	2	3
Cash	1,710	2,550	3,390
PP&E	0	0	0
Total Assets	1,710	2,550	3,390
Retained Earnings	210	1,050	1,890
Common Stock	1,500	1,500	1,500
Total equity	1,710	2,550	3,390

Cash Flow: Year	1	2	3
CFO	210	840	840
CFI	0	0	0
CFF	1,500	0	0
Change in cash	1,710	840	840
Opening cash	0	1,710	2,550
Closing cash	1,710	2,550	3,390

$$\text{ROE}_1 = \frac{210}{(0 + 1{,}710)/2} = 0.179 \text{ or } 17.9\%$$

$$\text{ROE}_2 = \frac{840}{(1{,}710 + 2{,}550)/2} = 0.394 \text{ or } 39.4\%$$

$$\text{ROE}_3 = \frac{840}{(2{,}550 + 3{,}390)/2} = 0.283 \text{ or } 28.3\%$$

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Capitalized Interest: Solution

Interest coverage before adjustment:

$$2017 = \frac{544,865}{229,582} = 2.37$$

$$2016 = \frac{298,663}{223,567} = 1.34$$

$$2015 = \frac{58,553}{118,330} = 0.49$$

Interest coverage after adjustment:

$$2017 = \frac{544,865 + 26,182}{229,582 + 37,483} = 2.14$$

$$2016 = \frac{298,663 + 48,345}{223,567 + 29,033} = 1.37$$

$$2015 = \frac{58,553 + 38,511}{118,330 + 134,838} = 0.38$$

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Basic EPS Calculation: Solution

Profit attributable to common stockholders: $2,500,000 – $200,000 = $2,300,000

Weighted Common Stock Shares Outstanding			Weighted
Shares outstanding 1st January 2018	1,000,000	12/12	1,000,000
Shares issued 1st April 2018	200,000	9/12	150,000
Shares repurchased 1st October 2018	(100,000)	3/12	(25,000)
Weighted average outstanding			1,125,000

$$\text{basic EPS} = \frac{\$2,300,000}{1,125,000} = \$2.04$$

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Stock Dividends and Splits: Example

1/1/X3	Shares outstanding	14,000
4/1/X3	Shares issued	5,000
7/1/X3	10% stock dividend	
10/1/X3	Shares repurchased	4,000

Shares adjusted for the 10% dividend:		
1/1/X3	Initial shares (× 1.1)	**15,400**
4/1/X3	Shared issued (× 1.1)	**5,500**
10/1/X3	Shares repurchased (no adj.)	**(4,000)**

Stock Dividends and Splits: Solution

Initial shares: 15,400 × 12/12	15,400
Shares issued: 5,500 × 9/12	4,125
Shares repurchased: (4,000) × 3/12	(1,000)
Weighted average shares outstanding	18,525

Convertible Preferred Stock: Example

For the year ended 31 December 2018, Bright-Warm Utility Company (fictitious) had net income of $1,750,000. The company had an average of 500,000 shares of common stock outstanding, 20,000 shares of convertible preferred, and no other potentially dilutive securities. Each share of preferred pays a dividend of $10 per share, and each is convertible into five shares of the company's common stock. Calculate the company's basic and diluted EPS.

Step 1: Compute basic EPS

20,000 share ×$10

$$= \frac{\$1{,}750{,}000 - \$200{,}000}{500{,}000} = \$3.10$$

Step 2: Consider impacts on numerator and denominator

$$= \frac{+\$200{,}000}{+100{,}000} = \$2$$

Impacts < basic EPS = dilutive

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Convertible Preferred Stock: Solution

Step 3: Dilutive EPS Adjustments	$
Basic EPS numerator	1,550,000
Preference dividend saved	200,000
Adjusted numerator	1,750,000
Basic EPS denominator	500,000
Shares if converted	100,000
Adjusted denominator	600,000

$$= \frac{\$1{,}750{,}000}{600{,}000} = \$2.92$$

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Convertible Debt: Example

Oppnox Company (fictitious) reported net income of $750,000 for the year ended 31 December 2018. The company had a weighted average of 690,000 shares of common stock outstanding. In addition, the company has only one potentially dilutive security: $50,000 of 6 percent convertible bonds, convertible into a total of 10,000 shares. Assuming a tax rate of 30 percent, calculate Oppnox's basic and diluted EPS:

Step 1: Compute basic EPS

$$= \frac{\$750{,}000}{690{,}000} = \$1.09$$

Step 2: Consider impacts on numerator and denominator

$$= \frac{+\$3{,}000(1-0.3)}{+10{,}000} = \$0.21$$

Impacts < basic EPS = dilutive

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Convertible Debt: Solution

Step 3: Dilutive EPS Adjustments	$
Basic EPS numerator	750,000
Net interest saved	2,100
Adjusted numerator	752,100
Basic EPS denominator	690,000
Shares if converted	10,000
Adjusted denominator	700,000

$$= \frac{\$752{,}100}{700{,}000} = \$1.07$$

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Stock Options and Warrants: Example

Hihotech Company (fictitious) reported net income of $2.3 million for the year ended 30 June 2018 and had a weighted average of 800,000 common shares outstanding. At the beginning of the fiscal year, the company has outstanding 30,000 options with an exercise price of $35. No other potentially dilutive financial instruments are outstanding. Over the fiscal year, the company's market price has averaged $55 per share. Calculate the company's basic and diluted EPS.

Step 1: Check for dilution:

Average stock price $55 > strike price (exercise price) $35

Therefore = dilutive

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Stock Options and Warrants: Solution

Step 2: Treasury Stock Method	$	Shares
Shares created on exercise		30,000
Cash received on exercise	1,050,000	
Shares repurchased	1,050,000/55	(19,091)
Net impact on denominator		10,909

Dilutive EPS: $\frac{\$2,300,000}{800,000+10,909} = \$2.84$

$30,000 \times \frac{(\$55-\$35)}{\$55}$

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