Financial Management in the Sport Industry 2nd edition Brown Solutions Manual

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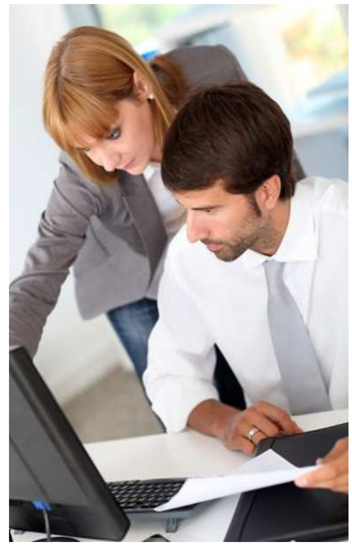

Chapter 2

Analyzing Financial Statements and Ratios

Chapter Overview

I. Introduction
II. Accounting basics
III. Financial statements
   a. The balance sheet
   b. The income statement
   c. The statement of cash flows
IV. Financial ratios
   a. Liquidity
      i. Current ratio
      ii. Quick/acid-test ratio
   b. Asset management
      i. Total asset turnover ratio
      ii. Inventory turnover ratio
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      i. Debt ratio
      ii. Interest coverage ratio
   d. Profitability
      i. Net profit margin
      ii. Return on equity
   e. Market value
      i. Market value
      ii. Price-to-earnings ratio

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V. Conclusion

Key Concepts

When reading this chapter, students should focus on the following key concepts:

1. The balance sheet, income statement, and statement of cash flows are vital tools to be used by financial managers.
2. How to interpret data contained in financial statements.
3. How ratios are used to analyze the financial performance of an organization.
4. How to use data to compare the financial performance of one organization against another.

Quiz Questions

1. Which of the following is a picture or snapshot of the financial condition of an organization at a specific point in time?
   a. Balance sheet
   b. Income statement
   c. Statement of cash flows
   d. Budget
   e. None of the above

2. Which ratio measures how an organization finances its operation with debt and equity?
   a. Current ratio
   b. Quick ratio
   c. Total asset turnover ratio
   d. Inventory turnover ratio
   e. Debt ratio

3. Which ratio measures how often an organization sells and replaces its inventory over a specified period of time?
   a. Current ratio
   b. Quick ratio
   c. Total asset turnover ratio
   d. Inventory turnover ratio
   e. Debt ratio

4. Which of the following is an estimate of how much money investors will pay for each dollar of the organization's earnings?
   a. Interest coverage ratio
   b. Net profit margin
   c. Return on equity
   d. Market value
   e. Price-to-earnings ratio

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5. Which financial statement tracks cash in and cash out of an organization over a specified period of time?
    a. Balance sheet
    b. Income statement
    c. Statement of cash flows
    d. Budget
    e. None of the above
6. Which of the following measures the return rate an organization’s owners or shareholders are receiving on their investments?
    a. Interest coverage ratio
    b. Net profit margin
    c. Return on equity
    d. Market value
    e. Price-to-earnings ratio
7. The ___________ shows the organization’s income over a specified period of time.
    a. Balance sheet
    b. Income statement
    c. Statement of cash flows
    d. Budget
    e. None of the above
8. An estimation of an organization’s worth according to the stock market is ___________.
    a. Interest coverage ratio
    b. Net profit margin
    c. Return on equity
    d. Market value
    e. Price-to-earnings ratio
9. Which of the following is a profitability ratio that measures the percentage of an organization’s total sales or revenues that was net profit or income?
    a. Interest coverage ratio
    b. Net profit margin
    c. Return on equity
    d. Market value
    e. Price-to-earnings ratio
10. Which ratio is an indication of whether an organization can meet its current liabilities—those due within a year—with its current assets?
    a. Current ratio
    b. Quick ratio
    c. Total asset turnover ratio

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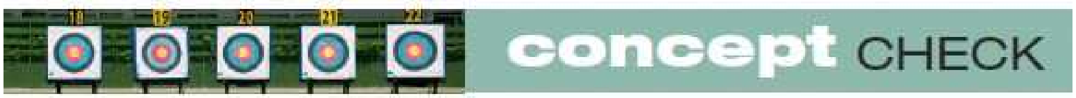
d. Inventory turnover ratio
e. Debt ratio

Answers to Quiz Questions

Numbers in parentheses represent where, in the text, you'll find this discussed.

1. a (p. 39)
2. e (p. 49)
3. d (p. 48)
4. e (p. 52)
5. c (p. 44)
6. c (p. 51)
7. b (p. 42)
8. d (p. 52)
9. b (p. 51)
10. a (p. 46)



Responses

1. *What are the three major sections of the balance sheet? Provide at least one example of an item that would be found under each of those sections.*

   See pages 39–42. The three sections of the balance sheet are Assets, Liabilities, and Owners', or Shareholders', Equity. Assets include what the organization owns, such as cash and inventory. Liabilities are the organization's financial debts, including both short- and long-term obligations. Owners' Equity is the estimated ownership value of the company, such as stock and capital.

2. *What is the primary difference between an income statement and a statement of cash flows?*

   See pages 43–44. The income statement shows revenues coming in to and expenses going out of an organization, whereas the statement of cash flows displays cash coming in and going out of the organization. Under accrual basis accounting, this difference can be considerable, as revenues are not necessarily equivalent to cash coming in. For example, in some situations cash payment for a sale might not be received for several months.

3. *What is the purpose of computing financial ratios?*

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See page 44. Financial ratios provide information about the condition and performance of a company. They are useful in comparing an organization's financial status to that of the organization's own past, as well as to rival competitors in the same industry.

4. *If an organization's current ratio value is below 1.00, what might that suggest about the organization?*

   See pages 46–47. A current ratio value below 1.00 suggest that an organization is unable to cover its debts with its assets, such as cash and accounts receivable. As such, the organization may need to convert longer-term assets into cash or borrow money to cover obligations owed.

5. *What information do leverage ratios provide?*

   See page 49. Leverage ratios show how a company finances its operation with debt and equity. An organization that relies extensively on borrowing money in order to operate is considered to be heavily leveraged and is more at risk of financial problems than one that is not so reliant on debt.

6. *Why is the price-to-earnings ratio so widely used among investors?*

   See pages 52–53. The price-to-earnings, or P/E, ratio gives an estimate of how much money investors will pay for each dollar of the company's earnings. One of the strengths of the P/E ratio for investors is that its scaled nature allows for comparisons of the market values of organizations of all sizes.

7. *This chapter repeatedly states that financial ratios are most valuable when viewed in comparison to the organization's historical ratio values as well as to competitors. Why is this context valuable when examining financial ratio values?*

   See page 54. Successful organizations evaluate themselves both internally and externally. From a financial perspective, companies must know how their status and performance measures internally compared to their own historical data. Externally, companies must understand how their financial position compares to that of their competition. Lacking either of these perspectives provides an incomplete view of the organization's financial condition.

PRACTICE problems

Response

Using the Nike financial statements provided the text, the ten financial ratios discussed in the chapter were calculated as shown below:

1. **Current ratio** = Current assets

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Current liabilities

= <u>$13,696,000,000</u>

$5,027,000,000

= 2.72

2. **Quick ratio** = <u>(Current assets – inventory)</u>

Current liabilities

= <u>($13,696,000,000 – 3,947,000,000)</u>

$5,027,000,000

= <u>$9,749,000,000</u>

$5,027,000,000

= 1.94

3. **Total asset turnover ratio** = <u>Net sales</u>*

Average total assets

* Note that Nike's income statement uses "Revenues," instead, on its income statement.

= <u>$27,799,000,000</u>

($18,594,000,000+$17,545,000,000)/2

= <u>$27,799,000,000</u>

$18,069,500,000

= 1.54

4. **Inventory turnover ratio** = <u>Cost of goods sold*</u>

Average inventory

* Note that Nike's income statement uses "Cost of sales," instead, on its income statement.

= <u>$15,353,000,000</u>

($3,947,000,000+$3,484,000,000)/2

= <u>$15,353,000,000</u>

$3,715,500,000

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= 4.13

5. **Debt ratio** = Total liabilities / Total assets

= $7,770,000,000 / $18,594,000,000

= 0.42

6. **Interest coverage ratio** = Earnings Before Interest and Taxes (EBIT)* / Interest expense

* On Nike's income statement, EBIT is not directly provided. It must be self-calculated by using the Gross Margin figure and subtracting the subsequent expenses not related to interest or taxes, which here represent the four lines/values immediately below Gross Margin.

= $3,680,000,000 / $33,000,000

= 111.52

7. **Net profit margin** = Net income / Sales

= $2,693,000,000 / $27,799,000,000

= 9.69% (should be expressed as a percentage)

8. **Return on equity** = Net income / Shareholders' equity

= $2,693,000,000 / $10,824,000,000

= 24.88% (should be expressed as a percentage)

9. **Market value**= Price per share of common stock × number of outstanding shares*

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* The number of shares of outstanding common stock is computed by adding the numbers of Class A and Class B common stock outstanding presented in the shareholders' equity section of Nike's balance sheet (178,000,000 + 692,000,000 = 870,000,000).

$$= \$76.91 \times 870{,}000{,}000$$

$$= \$66{,}911{,}700{,}000$$

10. **Price-to-earnings ratio** = $\dfrac{\text{Price per share of common stock}}{\text{Earnings per share*}}$

* Earnings per share = $\dfrac{\text{Net income}}{\text{Number of outstanding shares of common stock}}$

$$= \frac{\$76.91}{\$2{,}693{,}000{,}000/870{,}000{,}000}$$

$$= \frac{\$76.91}{3.10}$$

$$= 24.81$$

CASE ANALYSIS

Responses to Questions

The case study at the end of the chapter asks students to compare the financial health of Nike and Under Armour based on the ten financial ratios discussed in the chapter. The chapter provides Under Armour's financial ratio results; students have just calculated Nike's financial ratios (see the Practice Problems section in this Instructor's Manual).

Please note that students are being asked to make a rather simplistic assessment based on comparing the ratio figures for these two companies and what they've just learned about each ratio. In actuality, the ratio results and assessments may be much more complex. Note also that the two companies are being compared on different dates, as Nike and Under Armour use different fiscal year start and end dates.

1. *In what ratio areas is Nike stronger than Under Armour?*

   Inventory turnover ratio, interest coverage ratio, net profit margin, return on equity, market value

2. *In what ratio areas is Under Armour stronger than Nike?*

   Current ratio, quick ratio, total asset turnover ratio, debt ratio, price-to-earnings ratio

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3. *If you were an investor considering purchasing stock in either Nike or Under Armour, in which company would you purchase stock? Explain and support your answer.*

This is a challenging question to answer, as each company is stronger than the other in five of the ten financial ratios. Furthermore, as with any stock investment, it is impossible to predict the future, which is the crux of the issue when purchasing stock. Consider evaluating students' answers based on how well they support their answer with sound financial analysis rather than viewing the question as having a definitively right-or-wrong answer.

Additional Classroom/Exam Problems

1. *The Memphis Redbirds team has earnings before interest and taxes (EBIT) of $2,250,000 and $450,000 in depreciation expenses. It also has an interest expense of $120,000 and a 40% tax rate. How much in taxes will be paid?*

EBIT	$2,250,000
Interest	<u>120,000</u>
EBT	$2,130,000

Taxes are paid on EBT. So, taxes paid would be 40% of EBT, or

Taxes = 40% x EBT
= 40% x $2,130,000
= $852,000

2. *See Additional Classroom Problem 1. What is the team's net income?*

EBIT	$2,250,000	
Interest	<u>120,000</u>	
EBT	$2,130,000	
Taxes (40%)		<u>$852,000</u>
Net Income		<u>$1,278,000</u>

3. *See Additional Classroom Problem 1. If the team had no amortization expenses, what is the team's operating income?*

Operating Income, or EBITDA (earnings before interest, taxes, depreciation, and amortization), can be found by subtracting expenses from revenues. Here we have no revenue or expense data other than the depreciation and amortization expense information. Therefore, we can work backward to calculate operating income.

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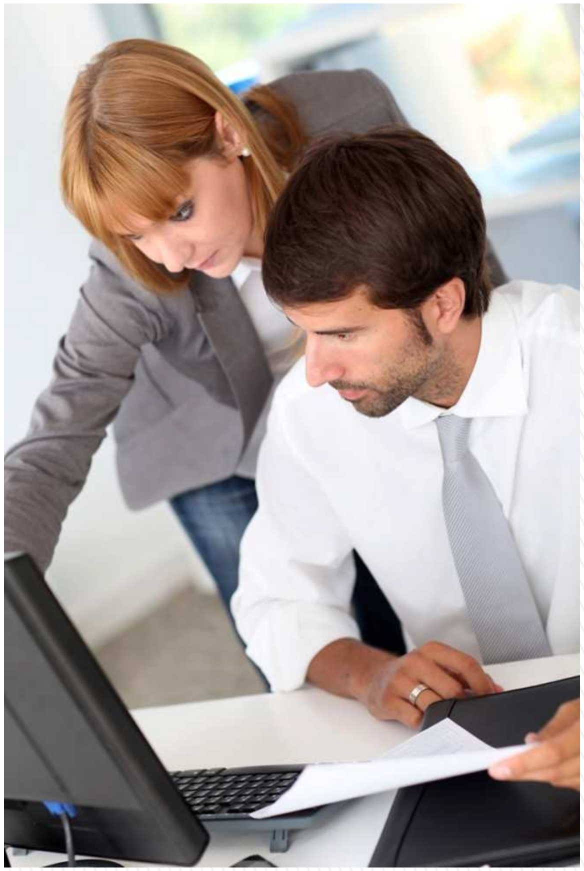
So, what is known is as follows:

EBITDA	?????	
Amortization	$0	
Depreciation	$450,000	
EBIT	$2,250,000	
Interest	120,000	
EBT	$2,130,000	
Taxes (40%)		$852,000
Net Income		$1,278,000

EBIT = EBITDA – D – A

$2,250,000 = EBITDA - $450,000 - 0

$2,700,000 = EBITDA



Analyzing Financial Statements and Ratios

Chapter 2

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Accounting Basics

- Double-entry bookkeeping
- Generally accepted accounting principles (GAAP)
- T-accounts
- Credits and debits

Accounts Receivable

Debits	*Credits*
(1) $200	

Membership Revenue

Debits	*Credits*
	(1) $200

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Financial Statements

- The primary source of information used to evaluate the financial health and performance of an organization
- Three basic types:
  1. Balance sheet
  2. Income statement
  3. Statement of cash flows

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Balance Sheet

- A picture or snapshot of the financial condition of an organization at a specific point in time
- Three primary sections:
  1. Assets
  2. Liabilities
  3. Owners' equity

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Notes on Balance Sheets

- Assets = Liabilities + Owners' Equity

Using the Under Armour example:

$2,095,083,000 = $744,783,000 + $1,350,300,000

- Assets and liabilities are listed in order of liquidity.

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Under Armour Balance Sheet—Assets

A See the textbook for an explanation of the various labels used throughout the financial statements.

Under Armour, Inc. and Subsidiaries

Consolidated Balance Sheets
(In thousands, except share data)

	December 31, 2014	December 31, 2013
Assets		
A Current assets		
Cash and cash equivalents	$ 593,175	$ 347,489
Accounts receivable, net	279,835	209,952
Inventories	536,714	469,006
Prepaid expenses and other current assets	87,177	63,987
Deferred income taxes	52,498	38,377
B Total current assets	1,549,399	1,128,811
C Property and equipment, net	305,564	223,952
Goodwill	123,256	122,244
Intangible assets, net	26,230	24,097
Deferred income taxes	33,570	31,094
Other long term assets	57,064	47,543
D Total assets	$2,095,083	$1,577,741

continued

Under Armour Balance Sheet—Liabilities and Stockholders' Equity

Liabilities and Stockholders' Equity		
E Current liabilities		
Revolving credit facility	$ —	$ 100,000
Accounts payable	210,432	165,456
Accrued expenses	147,681	133,729
Current maturities of long term debt	28,951	4,972
Other current liabilities	34,563	22,473
F Total current liabilities	421,627	426,630
G Long term debt, net of current maturities	255,250	47,951
Other long term liabilities	67,906	49,806
H Total liabilities	744,783	524,387
I Commitments and contingencies (see Note 7)		
Stockholders' equity		
J Class A Common Stock, $0.0003 1/3 par value; 400,000,000 shares authorized as of December 31, 2014 and 2013; 177,295,988 shares issued and outstanding as of December 31, 2014 and 171,628,708 shares issued and outstanding as of December 31, 2013.	59	57
Class B Convertible Common Stock, $0.0003 1/3 par value; 36,600,000 shares authorized, issued and outstanding as of December 31, 2014 and 40,000,000 shares authorized, issued and outstanding as of December 31, 2013.	12	13
K Additional paid-in capital	508,350	397,248
L Retained earnings	856,687	653,842
Accumulated other comprehensive income (loss)	(14,808)	2,194
M Total stockholders' equity	1,350,300	1,053,354
Total liabilities and stockholders' equity	$2,095,083	$1,577,741

Source: Under Armour (2014). 2014 Under Armour Annual Report.

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Calculating Your Thoughts

- New products that revolutionize an industry may come about because someone saw a need:
  - The Under Armour founder saw a need for better t-shirts.
  - Football coaches at the University of Florida saw a need for a carbohydrate-electrolyte beverage (i.e., Gatorade).
- Is there an area of sports and recreation that you believe could be improved?
- Do you believe you have what it takes to form your own company and sell your new product?

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Income Statement
(Statement of earnings, operating statement, or profit-and-loss statement)

- Shows an organization's income (or loss) over a specified period of time, often on an annual or quarterly basis
- Two types of accounting:
  - Cash basis
  - Accrual basis

Note the differences between the two and the resulting impact on the income statement.

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Under Armour Income Statement

Under Armour, Inc. and Subsidiaries

Consolidated Statements of Income
(In thousands, except per share amounts)

	Year Ended December 31, 2014	2013	2012
A Net revenues	$3,084,370	$2,332,051	$1,834,921
B Cost of goods sold	1,572,164	1,195,381	955,624
Gross profit	1,512,206	1,136,670	879,297
C Selling, general and administrative expenses	1,158,251	871,572	670,602
D Income from operations	353,955	265,098	208,695
E Interest expense, net	(5,335)	(2,933)	(5,183)
F Other expense, net	(6,410)	(1,172)	(73)
Income before income taxes	342,210	260,993	203,439
Provision for income taxes	134,168	98,663	74,661
G Net income	$ 208,042	$ 162,330	$ 128,778
Net income available per common share			
Basic	$ 0.98	$ 0.77	$ 0.62
Diluted	$ 0.95	$ 0.75	$ 0.61
Weighted average common shares outstanding			
Basic	213,227	210,696	208,686
Diluted	219,380	215,958	212,760

Source: Under Armour (2014).

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Statement of Cash Flows

- Financial statement that tracks cash flowing into and out of an organization over a period of time
- Compared to an income statement, it provides a simpler explanation of cash generated/spent
- Three sections:
  - Operating activities
  - Investing
  - Financing

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Under Armour Statement of Cash Flows—From Operating Activities

Under Armour, Inc. and Subsidiaries

Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2014	2013	2012
A Cash flows from operating activities			
Net income	$ 208,042	$ 162,330	$128,778
Adjustments to reconcile net income to net cash used in operating activities			
Depreciation and amortization	72,093	50,549	43,082
Unrealized foreign currency exchange rate losses (gains)	11,739	1,905	(2,464)
Loss on disposal of property and equipment	261	332	524
Stock-based compensation	50,812	43,184	19,845
Deferred income taxes	(17,584)	(18,832)	(12,973)
Changes in reserves and allowances	31,350	13,945	13,916
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts receivable	(101,057)	(35,960)	(53,433)
Inventories	(84,658)	(156,900)	4,699
Prepaid expenses and other assets	(33,345)	(19,049)	(4,060)
Accounts payable	49,137	14,642	35,370
Accrued expenses and other liabilities	28,856	56,481	21,966
Income taxes payable and receivable	3,387	7,443	4,511
Net cash provided by operating activities	219,033	120,070	199,761

continued

Statement of Cash Flows—

From Investing and Financing Activities, and more

B Cash flows from investing activities			
Purchases of property and equipment	(140,528)	(87,830)	(50,650)
Purchase of business	(10,924)	(148,097)	—
Purchases of other assets	(860)	(475)	(1,310)
Change in loans receivable	—	(1,700)	—
Change in restricted cash	—	—	5,029
Net cash used in investing activities	(152,312)	(238,102)	(46,931)
C Cash flows from financing activities			
Proceeds from revolving credit facility	—	100,000	—
Payments on revolving credit facility	(100,000)	—	—
Proceeds from term loan	250,000	—	—
Payments on term loan	(13,750)	—	(25,000)
Proceeds from long term debt	—	—	50,000
Payments on long term debt	(4,972)	(5,471)	(44,330)
Excess tax benefits from stock-based compensation arrangements	36,965	17,167	17,868
Proceeds from exercise of stock options and other stock issuances	15,776	15,099	14,776
Payments of debt financing costs	(1,713)	—	(1,017)
Net cash provided by financing activities	182,306	126,795	12,297
Effect of exchange rate changes on cash and cash equivalents	(3,341)	(3,115)	1,330
Net increase in cash and cash equivalents	245,686	5,648	166,457
Cash and cash equivalents			
Beginning of period	347,489	341,841	175,384
D End of period	$ 593,175	$ 347,489	$341,841
Non-cash investing and financing activities			
Increase in accrual for property and equipment	$ 4,922	$ 3,786	$ 12,137
Non-cash acquisition of business	11,233	—	—
Other supplemental information			
Cash paid for income taxes	103,284	85,570	57,739
Cash paid for interest, net of capitalized interest	4,146	1,505	3,306

Source: Under Armour (2014).

Notes on Balance Sheets

- Owners' equity is often an estimate
- The terminology used differs (sometimes considerably) from one company to another

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Notes on Income Statements

- Do they truly reflect actual earnings or profit?
- Issues: Depreciation, taxation, research and development, advertising

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Financial Ratios

- Key information about a company's condition and performance
- Why financial managers engage in ratio analysis:
  - To evaluate how well a company is operating in the current time period
  - To compare current to past performance
  - To compare current and historical performance to industry standards
  - To study efficiency of operations

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Key Financial Ratios

Ratio	Description
Liquidity	
Current ratio	The organization's ability to meet its current liabilities with its current assets
Quick ratio	The organization's ability to meet its current liabilities with current assets other than inventory
Asset Management Ratios	
Total asset turnover ratio	How efficiently the organization is using its assets to make money
Inventory turnover ratio	How often the organization sells and replaces its inventory over a specified period of time

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continued

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More Financial Ratios

Ratio	Description
Leverage Ratios	
Debt ratio	How the organization finances its operation with debt and equity
Interest coverage ratio	The organization's ability to pay the interest on its debt owed
Asset Management Ratios	
Total asset turnover ratio	How efficiently the organization is using its assets to make money
Inventory turnover ratio	How often the organization sells and replaces its inventory over a specified period of time

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continued

More Financial Ratios

Ratio	Description
Profitability Ratios	
Net profit margin	The percentage of the organization's total sales or revenues that was net profit or income
Return on equity	The return rate that the organization's owners or shareholders are receiving on their investment
Market Value Ratios	
Market value	An estimate of the organization's worth according to the stock market
Price-to-earnings ratio	An estimate of how much investors will pay for each dollar of the organization's earnings

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Calculating Your Thoughts

- If you were to invest in a sportswear company (or any company), would you use objective, evidence-based decision making to choose which company to invest in?
- Or do you think you would make your decisions in a more instinctive, “my gut says…” manner?
- Why? What would you say to someone who recommends a different method?

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