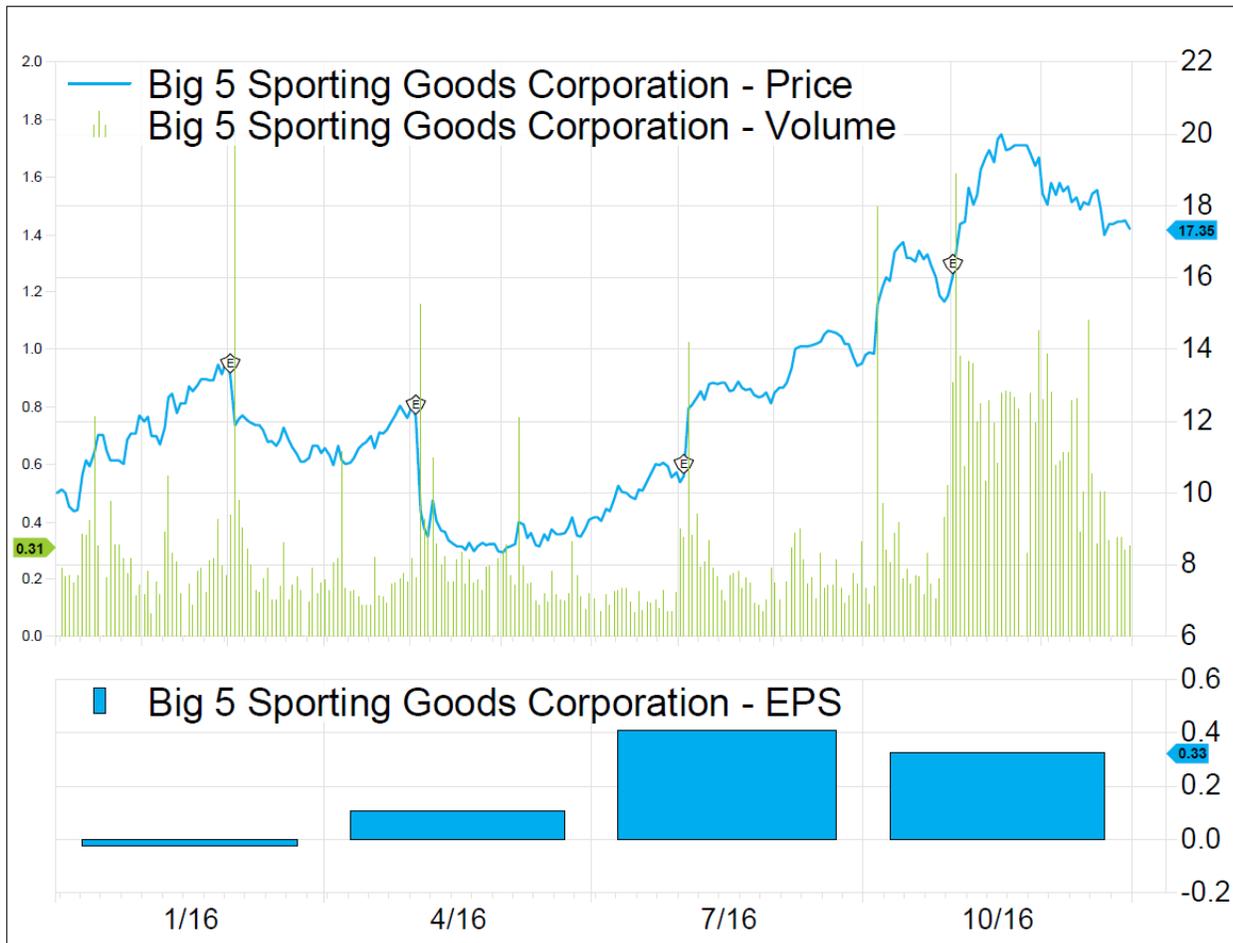


Big Five Sporting Goods ¹

As a bricks and mortar sporting goods retailer, Big Five Sporting Goods was an unlikely candidate for a hot stock. However, in the fall of 2016, while other bricks and mortar retailers were struggling to compete with online retailers such as Amazon, Big Five's earnings and stock price surged (see chart below).



Big Five's EPS for the 3rd quarter of 2016 had been forecast by analysts to come in at \$0.29, but blew past estimates coming in at a whopping \$0.41. Big 5's CEO heralded the results as follows:

¹ This case was prepared by Professor Richard Sloan as the basis for classroom discussion, rather than to illustrate either effective or ineffective handling of a business situation. Copyright 2018 by Richard Sloan.

“We are very pleased to deliver an exceptionally strong third quarter performance, with earnings meaningfully above the prior year as well as the high end of our guidance range,” said Steven G. Miller, the Company’s Chairman, President and Chief Executive Officer. “Results were driven by strong sales growth, including increases in both customer transactions and average sale, as well as improved merchandise margins, and clearly reflected the benefit from the closure of over 200 Sports Authority and Sport Chalet store locations in our markets”

Big Five’s stock price surge was aided in large part by strong buying from quantitative investors. These investors select stocks using computer algorithms based on financial formulas developed by academics to help identify outperforming stocks. By the end of 2016 quantitative investors including Dimensional Fund Advisors, Numeric Investors, LSV Asset Management and Arrowstreet Capital dominated Big Five’s investor base. These ‘quants’ are well known to combine three categories of formulas, labeled ‘value’, ‘momentum’ and ‘quality’ respectively. The table below summarizes some of the common financial formulas used in each of these categories:

Category	Common Financial Formulas
Value	Book to Market, Earnings to Price, Cash Flow to Price
Momentum	Prior 12 Month Stock Return, % Earnings Surprise
Quality	Return on Equity, Debt to Equity (lower is better for this one)

Big Five looked good on all of these ratios at the end of 2016. Its stock price was initially depressed along with other bricks and mortar retailers and so the surge in earnings for the second half of 2016 made its earnings-to-price ratio look attractive. Big Five’s operating cash flows also

jumped sharply in 2016, leading to an attractive cash flow to price ratio. The surge in earnings and resultant increase in stock price also caused the stock to score well in the momentum category. Finally, the surge in earnings contributed to a solid return on equity, which combined with Big Five's low debt to equity ratio to produce a strong quality score.

Yet not all investors were so impressed with Big Five's stock. While quant investors piled into the stock, short sellers bet aggressively against it, so aggressively that the short position reached a highly unusual 50% of shares outstanding. Moreover, Big Five's largest long-time stakeholder, a traditional concentrated value investor called Stadium Capital, took advantage of the stock price surge to unload its entire position in Big Five. Thus, Big Five pitted the quants with their computer algorithms and financial formulas against the traditional fundamental analysts with their deep fundamental research on the company. Have the quants missed something or are the fundamental analysts succumbing to behavioral biases? The purpose of this case is to try and figure out which side is right.

Big Five's Form 10-K for the year ended December 31 2016 is provided as an online exhibit at: http://www.lundholmandsloan.com/case_materials#Big_Five. Use this information to answer the following questions:

Questions

1. Summarize Big Five's business strategy and identify the key success factors associated with this strategy.
2. Identify the key risks associated with Big Five's business strategy.
3. Do you think that the solid earnings growth that Big Five experienced in the second half of 2016 is sustainable? Explain your answer.

4. Compute Big Five's return on equity ratio for 2016.
5. Do you think that the return on equity ratio you computed in question 4 provides a good indication of Big Five's economic rate of return on investment? If your answer is no, try to better approximate Big Five's economic rate of return on investment.
6. Compute Big Five's debt to equity ratio for 2016.
7. Do you think that the debt-to-equity ratio you computed in question 6 provides a good indication of Big Five's financial leverage? If your answer is no, try to better approximate Big Five's financial leverage.
8. Big Five's operating cash flows jumped sharply in 2016 relative to 2015. Identify the main reason(s) for this increase. Do you think these increased cash flows are sustainable?
9. Based on your answers to the preceding questions, do you think that the quants or the fundamental investors have better assessed the prospects for Big Five's stock at the end of 2016?