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A Gain by Any Other Name: Accounting for a Bargain Purchase Gain

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ABSTRACT: Students gain insight into a unique accounting treatment in acquisition accounting by completing this case—that of a bargain purchase gain (BPG). In December 2007, the Financial Accounting Standards Board (FASB) revised accounting for business combinations when they promulgated Statement of Financial Accounting Standard No. 141R, *Business Combinations*. Under the revised standard, acquirers record net assets of the acquiree at their respective fair market values at the time of acquisition and recognize the excess of net assets over the consideration paid as a BPG included in income from continuing operations. This case takes place after the acquisition is negotiated and the consideration is agreed upon. Students are required to estimate fair values of acquired net assets based on the information provided, determine whether goodwill or a bargain purchase gain exists, and evaluate the impact of this transaction on the financial statements. The case also requires students to consider subjectivity within the analysis, as well as to identify potential incentives that may influence certain estimates and judgments that managers make. The case is appropriate for accounting courses where business combinations, goodwill, and fair value estimation are discussed.

Keywords: business combinations; bargain purchase gain; fair values.

INTRODUCTION

In 2014, Longhorn Corporation (Longhorn) is interested in growing its business. Consistent with this strategy, Jeremy Williams, Longhorn's CEO, identifies Noles Company (Noles) as a potential acquisition target. Noles operates in the same industry as Longhorn, and currently manufactures complementary products. A purchase agreement has been reached between the companies where Longhorn acquires Noles effective as of July 1, 2014. In the following paragraphs, the operations of Longhorn are first described followed by the operations of Noles.[1]

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[1] The companies involved in this case are fictitious, but the information is drawn from the authors' review of a number of actual acquisitions.

Details associated with the acquisition are then described. Finally, Noles's assets and liabilities that are acquired by Longhorn are discussed.

LONGHORN INC., THE ACQUIRER

Longhorn became a publicly traded entity ten years ago, and its shares trade on NASDAQ. Jeremy became the CEO prior to the IPO. The company manufactures basic electronic circuitry for a multitude of products ranging from home appliances and home electronics, to vehicles and heavy-duty equipment. Since its initial public offering, the company has issued shares to the public through three separate seasoned equity offerings to fund its expansion initiatives. The company has expanded capacity to meet growing demand by building additional manufacturing facilities and has increased sales further by acquiring three smaller competitors.

Longhorn has maintained annual revenue growth of 10 percent over the past decade, in spite of operating in a very competitive market. While the company has been able to achieve excellent growth in revenue, it has come at a cost. Over time, market pressures have driven down the average sales price. With costs remaining constant, profit margins have decreased. While the company remains profitable and net income has risen each year, margins—both gross and net—have declined. Financial statements for the past two years are included in Exhibit 1.

Longhorn has an executive bonus plan that rewards executives for achieving minimum EPS targets. In 2013, Longhorn was not able to meet its EPS target for the first time in its history, and thus the executives were unable to receive additional compensation. The board of directors recently approved a current EPS-based bonus target of $0.88 per share. The bonus pool starts at $250,000 if the target is reached and increases by $50,000 for each cent the target is exceeded up to a maximum of $1 million. Jeremy's share of any bonus pool is 40 percent. However, the company's current forecast for the year (see Exhibit 3) projects net income of $40 million or only $0.78 per share. Through June 30, 2014, the company is on target to meet the company's forecast of $0.78 per share. Jeremy and other members of management are currently examining what can be done to enable the company to increase EPS.

NOLES COMPANY, THE ACQUIREE

Noles is a privately held company owned by three sisters. The three sisters recently inherited the company when their father unexpectedly died. Their father controlled all of the operations and made all of the decisions. The sisters were never involved in the business, nor did the father train anyone to succeed him. Therefore, the sisters are under immediate pressure to sell the company before the business deteriorates and the value declines.

Noles is a technology-oriented company supporting the cellular phone industry. The company manufactures three products at two facilities. The first product is a phone case that is specific to a particular phone model and is sold to wholesalers (approximately 20 percent of total sales). The cases are ultimately sold in big box electronic stores. The second product is a mass-produced AC adapter that is sold to cell phone manufacturers for inclusion when the cell phone is purchased (approximately 30 percent of total sales). Both of these products have narrow margins (5 percent to 10 percent) and the company does not possess any strategic advantages with respect to manufacturing these products.

The third product is a revolutionary interface that is used in cell phones manufactured by the leading providers in the industry. The interface connects the display, the processor, and the 4G connection in such a way that battery usage is reduced by 40 percent. The interface was the brainchild of their father and is protected by a number of related patents. The company continues to have high demand for the interface. Due to the patents, the company has also been able to maintain high margins on this product (45 percent to 50 percent).

The first of two facilities is located in Hamilton, Ohio, which is also the location of corporate headquarters. Existing management currently lives in the Hamilton area. The company has been an important part of the community for the past 30 years. All three products are produced at this facility; however, the assembly lines are somewhat outdated and inefficient. Approximately 40 percent of total output is produced at this facility, which is operating near full capacity.

The second facility is only five years old and is located in Asheville, North Carolina. This facility is located closer to the company's major customers. Because the facility is newer, the operations are more efficient and have lower operating costs. Only the two products sold to cell phone manufacturers are produced here, representing about 60 percent of total output. However, the facility is only operating at 70 percent capacity. The Asheville facility therefore has room to expand and could absorb the production of the AC adapter and the interface currently produced in Hamilton.

Noles's financial statements for the past two fiscal years and the six-month period ending on the acquisition date are included in Exhibit 2. Noles has approximately $50 million in assets with no debt. The company has been able to finance its operations with internally generated cash flows and avoided using debt. Sales have been growing at 10 percent per year. Gross margins and net income margins are fairly constant at approximately 34 percent and 10 percent, respectively.

LONGHORN'S ACQUISITION OF NOLES

In early 2014, Jeremy and the three sisters agreed to terms for Longhorn to acquire Noles. Longhorn issued 5.5 million shares of Longhorn's common stock to the sisters. The acquisition was completed on July 1, 2014 when the Longhorn common stock was trading at $13.50 per share (par value of $0.01). The transaction was valued at $74.25 million.

In the near term, Longhorn's management does not expect any operational synergies as a result of the acquisition of Noles. Their products are complementary, but not such that operations and marketing can be combined. The only savings as a result of the merger will be the elimination of some duplicative executive positions that total approximately $2.3 million annually, but these will not be realized until 2015 or later. Overall, the profit impact of the acquisition on the consolidated results of Longhorn in the near term will, therefore, be additive.

POST-ACQUISITION ANALYSIS

In connection with applying the acquisition method of accounting, the Longhorn controller's staff performed an in-depth review of the Noles's assets and liabilities in order to estimate their fair values. The analysis developed by the controller's staff indicates the fair value of net assets acquired is approximately $86 million, resulting in a bargain purchase gain of $11.75 million. Further, they estimate the acquisition will result in a revised EPS forecast of $0.94.

Jeremy then asked an analyst in the finance department, who had previous valuation experience, to review and assess the work of the staff's fair value estimates to provide confirmation of the acquisition accounting. However, the analyst felt that the overall estimate was too optimistic. While she agreed with the majority of the staff's fair value conclusions, she felt that the patent was substantially over-estimated. The analyst estimated the fair value of the patent as $8 million, substantially different from the staff's estimate of $18 million. The analyst attributes the staff's higher patent value to aggressive growth estimates, a lower normal margin, and gross margins not reflecting the changing market conditions over time. The analyst also thought the litigation reserve was understated. She estimated the litigation at $4 million, double the staff's estimate of $2 million. If Jeremy uses the analyst's estimates, the acquisition would result in goodwill recognition of $250,000 and an EPS forecast of $0.80.

Jeremy has therefore asked you, a neutral third party, to conduct a review of the facts surrounding this business combination to determine how you would apply acquisition accounting. The following discussion is based on the staff's notes regarding the valuation of the assets and liabilities and comments by the analyst as of the effective date of the acquisition (July 1, 2014).

Cash

The staff verified the cash balances by reviewing the bank reconciliations and related bank statements. Internal controls over cash appear to be functioning properly. No unusual items were noted in the review and the cash balance appears properly stated.

Short-Term Investments

The short-term investments consist of U.S. Treasuries and investment grade corporate debt securities (level 1 securities) maturing within the coming year. The fair values of the individual securities comprising the amount reported on the balance sheet were verified using appropriate market data as of June 30, 2014.

Accounts Receivable

Accounts receivables total $4.522 million as of June 30, 2014, with an allowance for doubtful accounts of $250,000. In general, Noles has been very fortunate. Write-offs in past years have been minimal, no more than $200,000 per year. However, there are collection problems associated with two customers that are in financial trouble, as discussed below.

The accounts receivable aging as of June 30, 2014 is as follows (in 000s):

Current	$3,693
30 to 90 days past due	81
90 to 180 days past due	318
More than 180 days past due	430
Total	$4,522

The large amounts included in the 90 to 180 days past due and the more than 180 days past due categories are due to financial problems being experienced by two customers, and are not typical for the company. G6 Inc. filed for protection under the bankruptcy code in February and is responsible for the $430,000 that is more than 180 days past due. As an unsecured creditor, Noles will at most receive pennies on the dollar, and it will take over one year before any amount is received. A second customer, Landless Line Corp., owes $250,000 of the amount included in the 90 to 180 days past due category. Subsequent to the acquisition by Longhorn, Noles and Landless Line Corp agreed to settle the amount due for $140,000. The amount was paid in August. Noles has stopped selling to both of these customers.

All other amounts were collected within 60 days of June 30, 2014. An assessment of the receivables portfolio indicates that the market would not consider a credit adjustment necessary for these other amounts in determining their fair value.

Inventory

Inventory consists of $1.96 million in raw materials and $3.73 million in finished goods. There is no work-in-process. The inventory is priced using the FIFO method.

A review of recent invoices to purchase the raw materials indicates that the inventory values approximate the cost to currently acquire the material. Absent any modification of the raw materials, there are active markets for which to sell these raw materials at similar prices.

Finished goods are more complicated. The finished goods inventory by product is as follows (in 000s):

Phone cases	$860
AC adapters	670
Interfaces	2,200
Total	$3,730

The company only realizes 5–10 percent margins on the phone cases and AC adapters. The margins on the interfaces are much stronger and range from 40–50 percent. The costs to sell each product average about 5 percent of the selling price for all products.

Other Current Assets

The other current assets consist primarily of prepaid expenses and are properly calculated based on the underlying insurance policies and other contracts. The terms of the underlying contracts indicate that the company will receive refunds of approximately the same amount if the contracts are cancelled. The amounts reported therefore approximate the fair market value of the assets.

Buildings and Equipment

Noles owns two buildings—manufacturing facilities and executive offices in Hamilton, OH and manufacturing facilities in Ashville, NC. Longhorn's management commissioned appraisals on both properties and related equipment under the assumptions that Longhorn would (1) continue to operate the facility, or (2) sell the facility and equipment. The summary of the appraisals are as follows (in 000s):

	Continue to Operate		Sell
	Building	**Equipment**	**Both**
Hamilton, OH	$11,000	$3,000	$10,000
Ashville, NC	32,000	8,000	34,000

Longhorn depreciates buildings and equipment using the straight-line method. The appraisals for the above properties indicate remaining useful lives of 40 and 5 years for the buildings and equipment, respectively.

Patent

The company's founder developed the interface and received a patent for the product. The product is therefore protected from competition due to the patent and the company has an exclusive set of cell phone manufacturers as customers.

As a result of the original patent and subsequent modifications, which are also patented, the remaining life of the patent at the acquisition date is six years. However, the economic life is only estimated to be four and a half years. Information on sales of the interface product over the past five years and the first half of 2014 are summarized below:

	2009	**2010**	**2011**	**2012**	**2013**	**2014**
Volume (millions)	9.5	10.6	11.7	12.8	14.1	7.8
Average selling price	$3.30	$3.25	$3.25	$3.30	$3.30	$3.27
Average cost to produce	2.75	2.40	2.00	1.90	1.80	1.80

Based on current marketing strategies, Noles's management expects that volume will continue to increase at 10 percent through the remainder of 2014. The growth rate is then expected to decline to 7.5 percent in 2015, 5.0 percent in 2016, 2.5 percent in 2017, and then continue with zero growth beginning in 2018 until the patent expires. Input costs for products in this industry have historically declined or remained constant as a product matures. Consistent with this trend, the key raw material for the interface is actually expected to decline 2.5 percent annually over the coming years as the supply increases, although the increased supply is still uncertain. Noles therefore projected that per-unit costs would remain at $1.80 in the foreseeable future. However, gross margins are expected to tighten over the next six years from 45 percent in 2014 to 20 percent in 2019, as sales prices are expected to continue to decline (6 percent to 8 percent per year). Combined with the possibility of declining costs, the company may be able realize slightly greater margins even with declining prices.

Longhorn's marketing staff has suggested a marketing campaign that they believe will allow them to maintain a higher growth rate over the next couple of years (10 percent in 2015, followed by 5 percent in 2016 and 2017) before settling at zero growth in 2018. Longhorn's marketing strategy consists of lowering the price today in order to gain market share and continue to deliver superior volume growth over the life of the patent. The staff suggests that they therefore lower the price to $2.77 per unit and is confident that Noles can maintain the $2.77 price through the remainder of the patent life. Assuming costs can be maintained at $1.80 per unit, the company expects to realize a gross profit margin of 35 percent under the new marketing strategy.

The marketing staff plans to use a strategy that has been successful for other business lines but is unproven with this client base. Industry reports also indicate that the cell phone market is saturated and continuing growth may be problematic. The analyst from the finance department is therefore concerned that the growth projections based on the marketing strategy are inappropriate in this setting and believes it will not ultimately be implemented and Noles will experience zero unit growth. The analyst is also more pessimistic about changing selling prices, citing recent price wars within the industry. These price wars drove prices down by 20 percent. As a result, the analyst expects estimates prices to decline by 8 percent each year.

Noles asserts that a 20 percent gross margin represents the typical gross margin expected from selling this type of product in a market where the product is not protected by patents. Industry reports indicate a range of typical gross margins from 15 percent to 25 percent for unpatented technology and depend largely on the product complexity. Higher gross margins are achievable as the product increases in complexity. In-house marketing material focuses on the interface's simplicity and ease of use. Simplicity may invite competition when the patent expires driving down gross margins to the lower end of the industry range. However, technical specifications for the interface and customer-specific modifications suggest added complexity.

Longhorn's staff consulted with valuation experts and determined that the most appropriate method to value the patent in this situation is based on the income approach.[2] The value of the patent under the income approach is based on the present value of the expected economic returns from the patent over its expected economic life. Longhorn uses the incremental (or abnormal) profits that the company is able to achieve as a result of the patent to determine economic returns.[3] The abnormal profits are assumed to represent an estimated royalty stream for the patent if the company licenses the rights rather than manufacture the interfaces themselves. The analyst used the same approach.

[2] Patents are also commonly valued using a market approach, such as a relief-from-royalty method. However, information on patents using comparable technologies in the same industry could not be located to provide a market-driven royalty rate. In this situation, an income approach is normally used.

[3] For simplicity, it is assumed that net cash flows associated with the patent occur at the end of the year.

Accounts Payable

The total accounts payable agreed to the subsidiary ledger. In addition, the staff performed cut-off tests and did not discover any problems with the accounting. All amounts were paid in full within 60 days. Combining the short-term nature of the liabilities and the minimal nonpayment risk, the amount paid approximates the fair value of the accounts payable.

Other Current Liabilities

The other current liabilities consist primarily of salary and benefit-related accruals. Amounts were properly calculated and were paid in July. The short-term nature of these payables and the credit-worthiness of Longhorn suggest that no discounting is required and the amount paid represents the fair value.

Litigation

Noles is a defendant in a lawsuit related to its phone case product. They are accused of infringing on product design and other patents. The lawsuit is in the discovery process, but Noles's counsel has estimated that there is a 20 percent to 40 percent chance of losing the case. If that were to occur, it is likely that Noles would be required to forfeit past profits on the product totaling $10 million. Further, Noles would not be able to manufacture and sell the product without paying royalties. The estimated royalty rate would make the product unprofitable. Longhorn's counsel reviewed the lawsuit and believes that the two scenarios presented and related range of probabilities are reasonable and approximate how a market participant would view the lawsuit.[4]

REQUIREMENTS

Prepare responses to the following requirements. When necessary, assume a risk-adjusted discount rate of 12 percent, and a forecasted effective income tax rate of 35 percent for the combined entity (ignore any deferred tax effects).

1. Estimating fair value estimates is not an exact science, as indicated by the difference in opinions between Longhorn's staff and the analyst. Assume you are hired as an external evaluator and use the information provided in the case to provide an unbiased measure of fair value for each of Noles's assets and liabilities acquired by Longhorn as of July 1, 2014. For each asset and liability, discuss the key judgments relied on to obtain a market-driven fair value estimate and why certain information was relied upon, and other information not, in determining your estimate. Then, prepare a schedule showing the application of the acquisition method of accounting for Longhorn's acquisition of Noles.
2. Using the estimates you developed in Requirement 1, determine the impact of the acquisition on 2014 forecasted earnings per share. Forecast data for both companies are provided in Exhibit 3.
3. What is meant by the phrase "bargain purchase gain" under acquisition method accounting? Include citations to U.S. GAAP in your response.
4. Would Jeremy be more or less likely to achieve his bonus compensation if this acquisition results in the recognition of a BPG? Explain.
5. How would relatively low (high) asset fair value estimates and relatively high (low) liability estimates affect the likelihood that a BPG will result in the current period? How could management biases affect the fair value estimates and the amount of any resultant BPG?
6. What concerns might an investor have if a BPG allows Jeremy to receive a bonus?

[4] For simplicity, discounting of this expected liability is not required.

EXHIBIT 1

Financial Statements of Longhorn Corporation

Longhorn Corporation
Condensed Balance Sheets
December 31,

	2012	2013
ASSETS		
Cash	$ 16,250	$ 18,900
Short-term investments (at FMV)	62,500	15,000
Accounts receivable, net	96,700	184,100
Inventory (FIFO)	108,255	158,150
Other current assets	17,600	25,190
Total current assets	301,305	401,340
Buildings and equipment	343,000	362,000
Less accumulated depreciation	(114,500)	(131,200)
Net buildings and equipment	228,500	230,800
Total Assets	$ 529,805	$ 632,140
LIABILITIES AND STOCKHOLDERS' EQUITY		
Liabilities		
Notes payable—bank	$ 25,000	$ 40,000
Accounts payable	121,700	162,450
Other current liabilities	14,075	26,005
Total current liabilities	160,775	228,455
Long-term debt	82,500	90,000
Stockholders' Equity		
Common stock	510	510
Additional paid-in capital	157,000	157,000
Retained earnings	129,020	156,175
Total stockholders' equity	286,530	313,685
Total Liabilities and Stockholders' Equity	$ 529,805	$ 632,140

(continued on next page)

EXHIBIT 1 (continued)

Longhorn Corporation
Condensed Income Statements
Years Ended December 31,

	2012	2013
Sales	$1,039,030	$1,256,550
Cost of goods sold	756,700	941,095
Gross profit	282,330	315,455
Selling, general and administrative	193,945	207,800
Interest expense	30,750	38,000
Income before taxes	57,635	69,655
Income taxes	18,000	22,500
Net income	$ 39,635	$ 47,155
Earnings per Share	$ 0.78	$ 0.92

Longhorn Corporation
Supplemental Information
Years Ended December 31,

	2012	2013
Number of shares outstanding	51,000,000	51,000,000
Price per share	$14.5	$13.8
Market capitalization (in 000)	$739,500	$703,800
Price-earnings Ratio	18.66	14.93
EPS target for executive bonus plan	0.76	0.96

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EXHIBIT 2

Financial Statements of Noles Company

Noles Company
Condensed Balance Sheets

	December 31, 2012	December 31, 2013	June 30, 2014
ASSETS			
Cash	$ 2,106	$ 2,360	$ 1,830
Short-term investments (at FMV)	4,000	7,500	9,000
Accounts receivable, net	4,070	4,591	4,272
Inventory (FIFO)	5,400	5,720	5,690
Other current assets	1,430	1,364	1,154
Total current assets	17,006	21,535	21,946
Buildings and equipment	42,580	44,600	45,100
Less accumulated depreciation	(12,700)	(13,810)	(14,325)
Net buildings and equipment	29,880	30,790	30,775
Total Assets	$ 46,886	$ 52,325	$ 52,721
LIABILITIES AND STOCKHOLDERS' EQUITY			
Liabilities			
Accounts payable	$ 7,100	$ 6,840	$ 4,620
Other current liabilities	2,005	1,784	1,360
Total current liabilities	9,105	8,624	5,980
Stockholders' Equity			
Common stock	2	2	2
Additional paid-in capital	2,998	2,998	2,998
Retained earnings	34,781	40,701	43,741
Total stockholders' equity	37,781	43,701	46,741
Total Liabilities and Stockholders' Equity	$ 46,886	$ 52,325	$ 52,721

Noles Company
Condensed Income Statements

	Year Ended Dec. 31, 2012	Year Ended Dec. 31, 2013	Six Months Ended June 30, 2014
Sales	$ 82,600	$ 93,480	$ 48,940
Cost of goods sold	54,500	62,300	36,100
Gross profit	28,100	31,180	12,840
Selling, general and administrative	14,500	14,860	4,800
Income before taxes	13,600	16,320	8,040
Income taxes	5,300	6,400	3,000
Net income	$ 8,300	$ 9,920	$ 5,040

EXHIBIT 3

Internal Forecasted Operations

Longhorn Corporation
Forecasted Income Statement
Year Ended December 31, 2014

Sales	$ 1,425,000
Cost of goods sold	1,090,000
Gross profit	335,000
Selling, general and administrative	235,000
Interest expense	40,000
Income before taxes	60,000
Income taxes	20,000
Net income	$ 40,000
Earnings per share	$ 0.78

Noles Company
Forecasted Income Statement
Year Ended December 31, 2014

Sales	$ 98,000
Cost of goods sold[a]	72,000
Gross profit	26,000
Selling, general and administrative[a]	9,000
Income before taxes	17,000
Income taxes	6,000
Net income	$ 11,000

[a] Depreciation of $550,000 is allocated between cost of goods sold and selling, general and administrative expenses.

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CASE LEARNING OBJECTIVES AND IMPLEMENTATION GUIDANCE

Overview of Case

This case requires students to apply acquisition method accounting to a hypothetical business combination of Noles Company (Noles) by Longhorn Corporation (Longhorn). Students estimate fair values of the assets acquired and liabilities assumed, including a patent. The facts of the case are designed such that the acquisition could result in either a bargain purchase gain (BPG) or goodwill, although our suggested solution and teaching notes assume that a BPG is recorded.

After the students complete the acquisition accounting, they are required to consider the financial statement impact of the BPG from the perspective of the acquirer. Specifically, students learn that bargain purchase gains increase current period earnings. The case also includes an EPS-based executive compensation bonus that creates an additional motivation for the acquiring firm to boost current period earnings. Including this EPS target in the case allows the student to learn about incentives and biases that may influence certain judgments and subjective estimates that managers make.

Learning Objectives

We developed the case with a number of student learning objectives in mind. First, students develop an understanding of what a bargain purchase gain is and how it is determined. Consequently, students consider the economic situation under which a BPG may exist. Second, students are provided an opportunity to estimate the fair values of assets and liabilities being acquired. Fair values are an increasingly important attribute of accounting. Additional exposure for students is necessary to prepare students for their careers. Third, students are asked to use the fair value estimates and apply the acquisition method of accounting to determine whether the fair value of net assets acquired exceeds (is less than) the consideration resulting in a bargain purchase gain (goodwill). Fourth, students are provided an opportunity to understand how management biases may affect the estimation of fair values and the resultant BPG. Finally, students are required to think critically about how an investor may perceive a BPG that allows Jeremy (the CEO of our hypothetical acquirer) to achieve a bonus target. This provides an opportunity to introduce earnings management topics with the students (if desired).

The case requirements address a combination of technical, research, and critical thinking skills. Applying the acquisition accounting and determination of the BPG provides students with opportunities to improve their technical skills. Research skills are enhanced by requiring students to explain what a BPG is and describe the situations where a BPG may exist. Finally, students are challenged to think critically when evaluating the fair value estimates and the impact of management biases in making judgments.

The student learning objectives are presented in Table 1. A cross reference from the learning objectives to the case requirements is also included.

Implementation Guidance

The BPG case provides instructional material to be utilized in financial statement analysis and advanced accounting courses at either the undergraduate or graduate level.[5] The authors use the case as a group project so that students are exposed to multiple viewpoints and reach a consensus before the class discussion of the case. However, the case could also be used as an individual

[5] Alternatively, the case facts could be used in an auditing class to discuss the auditor's responsibilities in auditing fair value estimates and acquisition accounting. However, this is beyond the scope of this instructional resource.

TABLE 1
Learning Objectives

Learning Objective	Requirement 1	2	3	4	5	6
1. Explain what a bargain purchase gain is and how it is determined.			X	X		
2. Determine fair values associated with assets and liabilities.	X					
3. Apply the acquisition method of accounting.	X					
4. Explain the potential for earnings management in the determination of a BPG.		X		X	X	X
5. Understand how management biases may affect the estimation of fair values and the resultant BPG.				X	X	X

assignment with a required writeup. Instructors should provide students at least one week to work on the case and then schedule a class discussion after the case is due. We recommend that instructors allow a minimum of 60 minutes for class discussion.

The case was developed assuming that the students have been exposed to business combination accounting and have an understanding of estimating fair values for accounting purposes. However, fair value estimation may not have been covered prior to this class, especially as it relates to estimating the fair value of a patent. Appendix B of the Teaching Notes provides an introduction to business combinations and related estimation processes that can be provided to, or used by, students who lack the necessary prerequisite knowledge.

Class testing the case (see the following section) identified a number of implementation issues and recommendations. First, it is recommended that when the case is distributed to students, the instructor should briefly discuss what the students will be required to do and that the case takes approximately five to ten hours on average for the students to complete. Consider encouraging the students to form groups to solve the case in a collaborative environment. Provide students with a brief overview of acquisition accounting, with a short example that shows the students how goodwill and/or gain on bargain purchase can result from an acquisition (Appendix B on estimating fair values may be distributed at this time). The instructor should also warn students about the areas of the case that will likely challenge them. For example, determining the value of the patent and performing the EPS adjustment are two areas that will require a significant amount of time for many students.

Second, to improve the quality of the case discussion, instructors should consider requiring the students to submit preliminary solutions to the case requirements prior to attending the lecture where the case will be discussed.

Third, we offer the following suggested case discussion breakdown:

1. Start by discussing the application of the acquisition method of accounting requirement. Emphasize that fair value estimates are not an exact science and that a range of values for many of the assets and liabilities would be acceptable. Discuss the differences in key assumptions among the students, especially as they relate to the patent and legal liability (15 minutes).
2. Encourage students that came up with relatively low (high) asset fair value estimates and relatively high (low) liability estimates to think about how these estimates make it relatively less (more) likely that a gain from bargain purchase will result in the current period (5 minutes).

3. After discussing the acquisition method of accounting requirement, provide the students with some additional time to review (and possibly redo) their adjusted EPS calculation in light of the discussion (10 minutes).
4. Discuss the adjusted EPS calculation with the students, emphasizing the importance of meeting or beating EPS targets tied to bonus compensation (15 minutes).
5. Discuss the remaining requirements with the students (15 minutes).

While not a specific requirement of the case, the classroom discussion can be enhanced if the instructor asks students to find real-world examples of BPGs. The discussion can focus on the different situations where BPGs are recognized. Footnote 1 in the Teaching Notes provides a list of companies with BPGs and an example is included in Appendix A of the Teaching Notes.

Evidence of Efficacy

This case was assigned to students in an undergraduate upper-level accounting course (intermediate accounting that also covers inter-corporate investment) at a large public university in the south.[6] The instructor found the case an effective resource to introduce a topic not covered in the text and to challenge students, especially on the patent valuation.

As a vehicle to assess students' learning, each student was asked to complete a student survey instrument (see Table 2).[7] The students responding to the survey were 51 percent male, primarily seniors (99 percent), and less than 25 years of age (58 percent). Further, all students were accounting majors consistent with the nature of the accounting course. Finally, most students reported spending less than ten hours on the case prior to class.

We asked the students 12 questions about the case where the response was based on a five-point Likert-type scale anchored by (1) "Strongly Disagree" and (5) "Strongly Agree." The first five questions focused on student's perception as to whether our learning objectives for the case were met. The weighted average responses for the assessment of the learning objectives for the students are as follows:

1. Explain what a bargain purchase is and how it is determined (4.6).
2. Determine fair values associated with assets and liabilities (4.4).
3. Apply the acquisition method of accounting (4.2).
4. Explain the potential for earnings management in the determination of a BPG (4.3).
5. Understand how management biases affect the estimation of fair values and the resultant BPG (4.4).

Student agreement (Agree or Strongly Agree) that the learning objectives were met ranges from 77 percent to 98 percent suggesting that use of the case achieves the learning objectives that we stated for the case.

Responses to other questions suggest that the case is realistic (95 percent in agreement), is well written and easy to understand (85 percent in agreement), challenges the student to think critically about intangible accounting (93 percent in agreement) and how an investor would feel about a BPG

[6] Earlier versions of this case were administered to both undergraduate and graduate students at two large public universities in the south. Because it has been necessary to update the survey (we changed two of the 12 questions to be consistent with our updated learning objectives), we report survey responses based on the current version of the case. While the current version of the case has not been administered at multiple universities, the survey responses among the unchanged questions are not statistically different than the responses provided by participants (from multiple universities) using the previous versions of the case.

[7] The surveys were distributed in class after the case was discussed and participation in the survey was voluntary. All 29 students in the undergraduate class completed the survey, while virtually all, 26 students, completed the survey in the graduate course.

TABLE 2

Student Responses

Panel A: Demographics (n = 86)

Gender		
Male	44	(51 percent)
Female	42	(49 percent)
Level		
Senior	85	(99 percent)
Graduate	1	(1 percent)
Previous work experience		
Yes	61	(71 percent)
No	25	(29 percent)
Age		
< 25	50	(58 percent)
25–29	20	(23 percent)
30–34	8	(9 percent)
35–39	4	(5 percent)
> 39	4	(5 percent)
Approximate hours spent on this case		
< 5	21	(24 percent)
5–9	54	(63 percent)
10–14	10	(12 percent)
15–19	1	(1 percent)
> 19	0	(0 percent)

Panel B: Agreement Whether Objectives Were Achieved and Other Opinions

Question	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Weighted Average
Explain what a bargain purchase gain is and how it is determined.	0	0	2	29	55	4.6
Determine fair values associated with assets and liabilities.	0	1	8	35	42	4.4
Apply the acquisition method of accounting.	0	3	17	30	36	4.2
Explain the potential for earnings management in the determination of a BPG.	0	3	9	36	38	4.3
Understand how management biases affect the estimation of fair values and the resultant BPG.	0	1	9	27	49	4.4
The case challenged me to think critically about how an investor might view a BPG.	0	0	4	35	47	4.5
The case provides a realistic setting.	0	0	4	28	54	4.6
The level of difficulty of the case was appropriate for the weight in the course's grade.	0	4	14	36	32	4.1
Completing the case required more than the textbook for the class.	2	2	8	25	49	4.4

(continued on next page)

TABLE 2 (continued)

Question	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Weighted Average
The case was clearly written and the requirements easy to understand.	0	0	13	38	35	4.3
The case challenged me to critically think about intangible asset accounting.	0	1	5	33	47	4.5
Overall, I believe the case added to the course.	0	0	10	32	44	4.4
Overall, I recommend the case for other instructors.	0	1	12	27	46	4.4

(95 percent in agreement), and suggest that students believed the case enhanced the class (88 percent in agreement). Overall, 85 percent of the students recommend the case for other instructors.

We also asked students for any additional comments that they have. In addition to implementation issues that are incorporated above, students had the following comments. One student responded that "It was very difficult . . . It's a great learning experience though!" Another student said the case "produced a memorable learning experience." One other stated that "Case was great experience." Negative comments were not received.

The evidence (survey responses and discussions with instructors) suggests that the case provides an effective instructional tool and that the stated learning objectives are being met.

TEACHING NOTES AND STUDENT VERSION OF THE CASE

Teaching Notes and the Student Version of the Case are available only to non-student-member subscribers to *Issues in Accounting Education* through the American Accounting Association's electronic publications system at http://aaapubs.org/. Non-student-member subscribers should use their usernames and passwords for entry into the system where the Teaching Notes can be reviewed and printed. The "Student Version of the Case" is available as a supplemental file that is posted with the Teaching Notes. Please do not make the Teaching Notes available to students or post them on websites.

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