



**BRIEF CASES**

**4011**

APRIL 7, 2009

CRAIG CHAPMAN

## **Biovail Corporation: Revenue Recognition and FOB Sales Accounting**

### **Background**

Late on October 9, 2003, David Maris, an analyst at Banc of America Securities (BAS), was trying to interpret the shocking events of the previous few days and finish the write-up of his first report on the Canadian pharmaceutical firm, Biovail Corporation. Maris didn't like what he saw at the company, but he never liked writing "Sell" recommendations. In any event, he wanted to make sure he was giving the best advice to his investment clients.

Biovail Corporation was one of Canada's largest publicly traded pharmaceutical companies.<sup>1</sup> For many years, Biovail had applied advanced drug-delivery technologies to improve the clinical effectiveness of medicines. The company commercialized its products, both directly (in Canada) and through strategic partners (internationally). Historically, its main therapeutic areas of focus had been central nervous system disorders, pain management, and cardiovascular disease.

Biovail's core competency was its expertise in the development and large-scale manufacturing of pharmaceutical products. It leveraged this expertise by focusing on (1) enhanced formulations of existing drugs, (2) combination products that incorporated two or more different therapeutic classes of drugs, and (3) difficult-to-manufacture generic pharmaceuticals.

In the United States, Biovail distributed a number of pharmaceutical products. These included Zovirax® ointment and cream (topical anti-viral drugs) and Cardizem® LA (for hypertension), which were marketed by strategic partners. In addition, Biovail distributed a number of branded off-patent products referred to as "Legacy" products. The Legacy products portfolio included the well-known brands Cardizem® CD, Ativan®, Vasotec®, Vaseretic®, and Isordil®. These products were not actively promoted by Biovail and represented non-core assets for which patent protection had

---

<sup>1</sup> Biovail's stock was listed on both the Toronto and New York stock exchanges. As a foreign private issuer, Biovail filed annual reports to the U.S. SEC on Form 20-F and furnished interim financial statements on Form 6-K. In 2003 Biovail included in its annual and interim reports financial statements purportedly prepared in accordance with both U.S. and Canadian generally accepted accounting principles (GAAP).

---

Craig Chapman, Senior Lecturer, Kellogg School of Management, prepared this case specifically for the Harvard Business Publishing Brief Case Collection. This case was prepared solely as a basis for class discussion and not as an endorsement, a source of primary data, or an illustration of effective or ineffective management. This case was developed from published sources.

Copyright © 2009 President and Fellows of Harvard College. To order copies or request permission to reproduce materials, call 1-800-545-7685, write Harvard Business Publishing, Boston, MA 02163, or go to <http://www.hbsp.harvard.edu>. This publication may not be digitized, photocopied, or otherwise reproduced, posted, or transmitted, without the permission of Harvard Business School.

expired. While the products were well respected by the medical community, prescription volumes were expected to decline as competing generic formulations became more readily available.<sup>2</sup>

## The Truck Accident and Revised Earnings Guidance

A few days earlier, Biovail had released guidance for the quarter ended September 30, 2003, indicating that revenues would be in the range of \$215 million to \$235 million<sup>3</sup> and earnings per share of \$0.35 to \$0.45,<sup>4</sup> both below previously issued guidance. The company stated in its press release that the loss of revenue and income was associated with a significant in-transit shipment loss of Wellbutrin® XL, Biovail's antidepressant product, due to a traffic accident that contributed significantly to this unfavorable variance. As far as Maris was aware, this was the first time that Biovail had missed its quarterly guidance.

After leaving Biovail's manufacturing facility in Manitoba, Canada, on September 30, 2003, a truck carrying a shipment of Wellbutrin® XL, bound for the North Carolina facility of one of Biovail's strategic partners—a major international pharmaceutical company that distributed the product (the Distributor), was involved in a multi-vehicle traffic accident near Chicago, Illinois, at approximately 3 p.m. Central Daylight Time the following day. Eight people were killed and 16 injured in the accident, when an 18-wheeler plowed into the back of a tour bus, which then collided with Biovail's contract carrier. All the fatalities were on the bus.<sup>5</sup>

Biovail announced that the product on the truck might still be salable in the future. However, it would need to be returned for inspection to Biovail's manufacturing facility in Manitoba to ensure that it was still within acceptable specifications. The company estimated that revenue associated with this shipment was in the range of \$10 million to \$20 million and confirmed that the manufacturing cost value of this shipment had been fully insured.

Biovail's most recent filing with the U.S. Securities Exchange Commission stated that they recognized product sales revenue when the product was shipped to the customer provided that the firm had not retained any significant risks of ownership or future obligations with respect to the product shipped. Revenue from product sales was recognized net of reserves for estimated product returns, recalls, rebates, and chargebacks. These reserves were established in the same period in which the related product sales were recorded and were based on estimates of the proportion of product sales subject to return, recall, rebate, or chargeback.

In a conference call following the earnings guidance, Biovail's chief financial officer, Brian Crombie, told analysts that Biovail's contract with the Distributor had title change in Manitoba when it left the shipping dock (FOB shipping point).<sup>6</sup> However, unknown to Crombie, an employee from the Distributor had previously called and emailed Kenneth Howling, Biovail's vice president of Finance who reported to Crombie, to correct the statement about when title to the product passed to the Distributor. The agreement between Biovail and the Distributor provided that title to, and risk of

---

<sup>2</sup> Biovail company website [www.biovail.com](http://www.biovail.com)

<sup>3</sup> Compared to market expectations and prior guidance of approximately \$260 million.

<sup>4</sup> Compared to prior guidance of \$0.58 to \$0.68 per share.

<sup>5</sup> Biovail company press release, October 4, 2003.

<sup>6</sup> The term *FOB* for "Free On Board" or "Freight On Board" indicates the point at which the responsibility of the goods transfers from shipper to buyer. "FOB shipping point" indicates that the buyer takes responsibility for the goods when the goods leave the seller's premises. "FOB destination" designates that the seller remains responsible for the goods until the buyer takes possession. It can also be used to identify who is responsible for loading and unloading costs.

loss with respect to, the product would not have passed to the Distributor until the product was delivered to the Distributor's facility (FOB destination).

## The Response of Other Analysts

On October 3, 2003, immediately following the announcement of the truck accident, Canadian Imperial Bank of Commerce announced that it was cutting its stock rating on Biovail to Sector Performer from Sector Outperformer and removing the company from the Special Research Series (SRS), effectively ceasing coverage of the stock. The reasons given for the downgrade cited ongoing production delays and operational uncertainties at Biovail.<sup>7</sup>

In contrast, J.P. Morgan Securities Inc. was more upbeat.<sup>8</sup> On October 9, 2003, analysts there reiterated their "Overweight" rating on Biovail, highlighting that (i) Biovail remained firm on its estimate of \$10 million to \$20 million in Wellbutrin® XL revenues lost in the accident, (ii) Biovail's low quality of earnings in the past should not be news to those familiar with Biovail, and (iii) poor earnings quality doesn't equal bad accounting.

In particular, J.P. Morgan calculated how much of the truck would need to be filled to represent the missing revenue, suggesting that it would make a wonderful interview question for management consultants.<sup>9</sup> The majority of Wellbutrin® XL on the truck consisted of bulk tablets in 64-gallon drums.<sup>10</sup> Each 300 mg Wellbutrin® XL tablet was estimated to be roughly 0.5 cm<sup>3</sup> with an additional 1.00 cm<sup>3</sup> per tablet for packing space and a wholesale acquisition price of \$2.83 per tablet, which included an assumed 400% mark-up for the Distributor as well as a 35% wholesaler margin. The interior dimensions of a typical 18-wheeler trailer were 17m x 4.5m x 2.5m.<sup>11</sup>

J.P. Morgan added that its analysts had never argued with earlier claims that Biovail's accounting might have been aggressive. However, its analyst report concluded that Biovail's current accounting did not seem egregious and that the earnings impact of Wellbutrin® XL was completely transparent.

## History of Analyst Coverage and the Relationship with Banc of America Securities

In October 2000, January 2002, and April 2002, Jerry Treppel, Maris's predecessor at BAS, had downgraded his stock recommendation for Biovail. On each occasion, this resulted in substantial declines in Biovail's stock value—more than 20% in the days following the April downgrade.<sup>12</sup> In the April 2002 report that contained a Sell recommendation, Treppel suggested that the company's revenue and earnings performance over the prior 18 months had not been of high quality. Although stating that the information was unclear, Treppel was concerned about the sustainability of the rapid sales growth that Biovail was reporting. In particular, he highlighted sales of Cardizem® CD, which

---

<sup>7</sup> From Thompson One Analytics (formerly First Call)

<sup>8</sup> From Thompson One Analytics (formerly First Call)

<sup>9</sup> This is a reference to the type of numerical question that management consulting firms are believed to ask prospective recruits during interviews.

<sup>10</sup> One U.S. gallon is equivalent to 3.7854 liters. One liter of water has a volume of approximately 1,000 cm<sup>3</sup>.

<sup>11</sup> There are 100 centimeters (cm) in a meter.

<sup>12</sup> Source: Court documents: Treppel v. Biovail Corp., 2008 WL 866594 (S.D.N.Y. April 2, 2008) obtained from Lexis Nexis.

represented 40% of product sales at Biovail. The reported sales of Cardizem® CD for the previous quarter were \$52 million—at least \$10 million more than was reported in the previous quarter.<sup>13</sup>

Shortly after Biovail executives were unable to persuade BAS to retract the April 2002 report, Biovail made a number of public statements regarding Treppel's coverage, which led to an investigation of Treppel by the New York state attorney general's office, the Securities and Exchange Commission (SEC), and the National Association of Securities Dealers into his personal trading activities. In May 2002, Treppel was placed on leave by BAS and ultimately resigned his position. In response, Treppel sued Biovail, some of its executives, and also its public relations firm, claiming defamation. It looked like it would take a long time for the litigation to be resolved.

## The Research Findings at BAS

Following the truck accident, Maris, who had taken over the account from Treppel, and his team started to do some digging. They called the state trooper handling the crash investigation, got a copy of the accident report, and talked to someone at the impound lot where the truck was towed. According to the first trooper on the scene, who had obtained information directly from the bill of lading, the truck contained 8 pallets of product with a total weight of 11,690 pounds—all of it Wellbutrin® XL, since the truck had no other cargo. The trooper estimated that the truck was about one-quarter full and that even 25 pallets would not have filled up a tractor-trailer of the size involved in the accident.<sup>14</sup>

Maris and his team also talked to the towing company and to a local TV reporter/cameraperson who'd shot the scene. Maris also watched the report on the TV station's web site. The investigation suggested that Biovail might have significantly overestimated the amount of Wellbutrin® XL on the truck. If there had been \$20 million worth of Wellbutrin® XL pills on that truck, it would have been full, or nearly full, thought Maris.

Maris looked back at Treppel's previous comments on Biovail from the file and remembered some of the comments that had been made during the conference call. Melnyk had stated: "This accident will have a negative financial impact on Biovail's third quarter revenues." He had then repeated "It is a third quarter item." Maris wasn't sure what to make of the comments and went back to check on some of the accounting rules, wondering if Treppel's concerns about aggressive accounting might have been correct.

First there were the general disclosure requirements laid out by the SEC. Its Financial Reporting Release (FRR) 36 required that a company's Management Discussion and Analysis (MD&A) should "give investors an opportunity to look at the registrant through the eyes of management by providing a historical and prospective analysis of the registrant's financial condition and results of operations, with a particular emphasis on the registrant's prospects for the future." In the SEC's staff accounting bulletin concerning revenue recognition (SAB 101), the SEC reiterated that the MD&A should include an analysis of the reasons and factors contributing to the increase or decrease (in revenues/net income).<sup>15</sup> However, in spite of these rules, according to SEC complaints and allegations, many companies artificially inflated their reported revenues by deliberately sending retailers along the distribution channel more products than they were able to sell (a process referred to as "channel

---

<sup>13</sup> "BVF: Downgrading rating to Sell from Market Performer," Bank of America Securities from Thompson One Analytics (formerly First Call), April 29, 2002

<sup>14</sup> [http://securities.stanford.edu/1029/BVF03-01/2004618\\_r01c\\_038917.pdf](http://securities.stanford.edu/1029/BVF03-01/2004618_r01c_038917.pdf)

<sup>15</sup> According to their SEC filings, Biovail had adopted SAB 101 in January 2000.

stuffing”).<sup>16</sup> In such settings, the SEC did require some disclosure regarding such actions in the MD&A, using “shipments of product at the end of a reporting period that significantly reduce customer backlog and that reasonably might be expected to result in lower shipments and revenue in the next period” as a specific example.<sup>17</sup> In spite of these requirements, a cursory analysis of the MD&A sections of 10-K filings revealed only rare disclosures of this type. Most of those that could be found blamed seasonal customer buying patterns.

Then there were the revenue recognition requirements which were taught in almost any financial accounting class. Since Biovail’s stock was listed on the New York Stock Exchange, it filed its annual and interim financial statements with the SEC in accordance with U.S. GAAP. U.S. GAAP required that revenue must be earned and realized or realizable in order for it to be recognized. More precisely, SAB 101 stated that these conditions would generally be satisfied when the following four criteria were met:

- i) Persuasive evidence of an arrangement exists;
- ii) Delivery has occurred or services have been rendered;
- iii) The seller’s price to the buyer is fixed or determinable; and
- iv) Collectability is reasonably assured.<sup>18</sup>

Maris felt that Biovail should not be able to record revenue from the sale of the drugs in the truck in the third quarter. It just didn’t feel right. However, he wanted to make sure that he really understood the effects of the accident on the firm before he signed off on his Sell recommendation.

## Assignment Questions

1. How many truckloads of product are actually required to carry \$10 million of product? Show your calculations.<sup>19</sup>
2. How should the company recognize revenue based upon the two possible FOB contract structures mentioned in the case? Why?
3. How does the accident affect the stated revenues under the different FOB contract structures? Explain your reasoning.
4. Are you concerned about the company’s treatment of analysts who cover the stock? Would you want to be an analyst covering this company?

---

<sup>16</sup> High profile examples included accusations of channel stuffing at Bristol Myers Squibb, ClearOne Communications, Coca-Cola, and Sunbeam. <http://sec.gov/litigation>

<sup>17</sup> <http://sec.gov/interp/account/sabcodet13.htm> (April 28, 2006)

<sup>18</sup> By comparison, under International Financial Reporting Standards (IFRS), revenue was generally recognized when all the following conditions were met: the significant risks and rewards of ownership of the goods have been transferred to the buyer; the seller keeps neither continuing managerial involvement nor effective control over the goods sold; the amount of revenue can be measured reliably; it is probable that the economic benefits associated with the transaction will flow to the seller; and the costs incurred or to be incurred in respect of the transaction can be reliably measured.

<sup>19</sup> It may be easier to convert all length dimensions to centimeters (cm) before calculating volumes.

**Exhibit 1** Consolidated Statements of Income (Loss) of Biovail Corporation  
(In US\$ thousands, except per share data)

|                                          | Three Months Ended<br>June 30 |                  | Six Months Ended<br>June 30 |                   |
|------------------------------------------|-------------------------------|------------------|-----------------------------|-------------------|
|                                          | 2003                          | 2002             | 2003                        | 2002              |
| <b>Revenue</b>                           |                               |                  |                             |                   |
| Product sales                            | \$ 157,730                    | \$ 157,788       | \$ 284,644                  | \$ 287,642        |
| Research and development                 | 3,673                         | 5,802            | 6,273                       | 11,515            |
| Co-promotion, royalty and licensing      | <u>55,880</u>                 | <u>21,541</u>    | <u>117,756</u>              | <u>41,227</u>     |
|                                          | 217,283                       | 185,131          | 408,673                     | 340,384           |
| <b>Expenses</b>                          |                               |                  |                             |                   |
| Cost of goods sold                       | 11,332                        | 41,291           | 48,744                      | 77,007            |
| Research and development                 | 21,813                        | 14,453           | 39,819                      | 24,921            |
| Selling, general and administrative      | 56,949                        | 38,981           | 103,106                     | 78,318            |
| Amortization                             | 45,886                        | 14,019           | 86,407                      | 26,528            |
| Acquired research and development        | 84,200                        | 0                | 84,200                      | 0                 |
| Settlements                              | <u>(9,300)</u>                | <u>0</u>         | <u>(34,055)</u>             | <u>0</u>          |
|                                          | <u>210,880</u>                | <u>108,744</u>   | <u>328,221</u>              | <u>206,774</u>    |
| Operating income                         | 6,403                         | 76,387           | 80,452                      | 133,610           |
| Interest income                          | 1,635                         | 1,047            | 4,702                       | 2,561             |
| Interest expense                         | (9,507)                       | (10,104)         | (19,489)                    | (11,797)          |
| Other income                             | <u>6,157</u>                  | <u>(66)</u>      | <u>6,664</u>                | <u>(66)</u>       |
| Income before provision for income taxes | 4,688                         | 67,264           | 72,329                      | 124,308           |
| Provision for income taxes               | <u>5,700</u>                  | <u>4,707</u>     | <u>10,350</u>               | <u>8,700</u>      |
| Net income (loss)                        | <u>\$ (1,012)</u>             | <u>\$ 62,557</u> | <u>\$ 61,979</u>            | <u>\$ 115,608</u> |
| Earnings (loss) per share - Basic        | \$ (0.01)                     | \$ 0.42          | \$ 0.39                     | \$ 0.76           |
| Earnings (loss) per share - Diluted      | \$ (0.01)                     | \$ 0.39          | \$ 0.39                     | \$ 0.70           |

Note: In accordance with U.S. GAAP

Source: Biovail Corp International, Form 6-K for June 30, 2003. Filed on August 29, 2003.

**Exhibit 2** Consolidated Balance Sheets of Biovail Corporation  
(In US\$ thousands, except per share data)

|                                               | June 30<br>2003     | Dec. 31<br>2002     |
|-----------------------------------------------|---------------------|---------------------|
| <b>Assets</b>                                 |                     |                     |
| Current                                       |                     |                     |
| Cash and Cash Equivalents                     | \$ 102,592          | \$ 56,080           |
| Accounts Receivable                           | 216,438             | 190,980             |
| Inventory                                     | 77,436              | 53,047              |
| Deposits and prepaid expenses                 | <u>15,666</u>       | <u>21,524</u>       |
|                                               | 412,132             | 321,631             |
| Long-term investments                         | 95,754              | 79,324              |
| Property, plant and equipment, net            | 157,409             | 136,784             |
| Goodwill, net                                 | 102,450             | 102,212             |
| Intangible assets, net                        | 1,144,439           | 1,080,503           |
| Other assets, net                             | <u>118,259</u>      | <u>113,350</u>      |
| Total Assets                                  | <u>\$ 2,030,443</u> | <u>\$ 1,833,804</u> |
| <b>Liabilities</b>                            |                     |                     |
| Current                                       |                     |                     |
| Accounts payable                              | \$ 74,568           | \$ 71,641           |
| Accrued liabilities                           | 100,836             | 95,289              |
| Income taxes payable                          | 42,096              | 35,691              |
| Deferred revenue                              | 11,321              | 19,947              |
| Current portion of long-term obligations      | <u>92,285</u>       | <u>122,590</u>      |
| Total Current Liabilities                     | 321,106             | 345,158             |
| Deferred revenue                              | 16,200              | 18,200              |
| Long-term obligations                         | <u>749,328</u>      | <u>624,760</u>      |
| Total Liabilities                             | 1,086,634           | 988,118             |
| <b>Shareholders' Equity</b>                   |                     |                     |
| Common shares                                 | 1,443,956           | 1,433,624           |
| Stock options outstanding                     | 4,678               | 4,856               |
| Executive Stock Purchase Plan loans           | (9,988)             | (9,988)             |
| Deficit                                       | (518,434)           | (580,413)           |
| Accumulated other comprehensive income (loss) | <u>23,597</u>       | <u>(2,393)</u>      |
| Total Shareholders' Equity                    | 943,809             | 845,686             |
| Total Liabilities plus Shareholders' Equity   | <u>\$ 2,030,443</u> | <u>\$ 1,833,804</u> |

Note: In accordance with U.S. GAAP

Source: Biovail Corp International, Form 6-K for June 30, 2003. Filed on August 29, 2003.

**Exhibit 3** Senior Management Profiles at Biovail Corporation

**Brian Crombie** is a Canadian citizen and a resident of Mississauga, Ontario, and has been Biovail Corp's chief financial officer since May 2000. Crombie came to Biovail from The Jim Pattison Group, one of Canada's largest private holding companies. During his tenure there, he served as Managing Director, Corporate Finance, where he was responsible for corporate development and treasury. From 1990–1997, Crombie held a series of progressively senior finance and general management positions with The Molson Companies; as Senior Vice-President, Corporate Finance and Treasurer, he was responsible for planning, accounting and control, corporate development, treasury and investor relations. Previously, Crombie worked for the Walt Disney Company. He also has an MBA from The Harvard Business School.

**Eugene Melnyk** (born May 1959) is a Canadian citizen and a resident of St. Philip, Barbados. Melnyk founded Biovail Corp. and has served as its chairman and as a director since March 1994. According to SEC filings, Melnyk owns over 27 million shares in Biovail, representing approximately 18% of the common stock outstanding. Melnyk has been Biovail's chief executive officer since December 2001 and, according to Wikipedia, purchased the Ottawa Senators hockey club of the NHL and their arena, Scotiabank Place, out of bankruptcy in August 2003. According to the Canadian Globe and Mail, Mr. Melnyk was one of the highest-paid Canadian executives in 2001 and 2002. He took home over \$120 million and \$60 million (Canadian) in salary and profits from exercising corporate stock options in 2001 and 2002 respectively.

**John Miszuk** is a Canadian citizen and a resident of Mississauga, Ontario. Miszuk has been Vice-President, Controller, and Assistant Secretary of Biovail Corp. since June 2000. Miszuk joined the Company in July 1990 as Controller of an affiliate company and was appointed Corporate Controller in March 1994. In November 1997 he was appointed Vice President, Controller. Prior to joining Biovail, Miszuk occupied senior financial management positions for Becton Dickinson Canada Inc. including Manager of Planning and Analysis and Manager of Financial Accounting. His previous experience includes financial positions with Intercraft Industries Canada and Fruehauf Canada Inc.

**Kenneth G. Howling** is a U.S. citizen and a resident of Toronto, Ontario. He became the Company's chief financial officer in 1997 and was promoted to be Biovail's vice president of finance in 2000. In 2003 he assumed additional responsibilities for external communications to investors and analysts when his title changed to Vice President, Finance and Corporate Affairs. He is a Certified Public Accountant licensed in New Jersey, but is not a Canadian chartered accountant.

Source: Bio information compiled from "Crombie Named to Board," *Mississauga News*, October 28, 2008; Biovail press release, "Biovail Announces Changes to Executive Team," August 4, 2004; [www.wikipedia.com](http://www.wikipedia.com) and [www.patronsofsport.com](http://www.patronsofsport.com) profiles (Melnyk); [www.portfolio.com/resources/executive-profiles](http://www.portfolio.com/resources/executive-profiles) and Biovail website [www.biovail.com](http://www.biovail.com) (Miszuk and Howling).

**Exhibit 4** Biovail Corp's Stock Price, January 1, 2000 through September 30, 2003.  
(In US\$ per Share on NYSE: BVF)



Source: [www.etrade.com](http://www.etrade.com)

**Exhibit 5** Supply Chain

Biovail → Distributor → Wholesalers → Retailer → End User

In this situation, the Distributor is one of the world's largest pharmaceutical companies.

Source: Casewriter