JOURNAL OF FINANCE CASE RESEARCH

Volume 14 2012 Number 1

The Journal of the
INSTITUTE OF FINANCE CASE RESEARCH

Volume 14, Number 1 **ISSN 1527-5426**

JOURNAL OF FINANCE CASE RESEARCH

The Official Journal of the
INSTITUTE OF FINANCE CASE RESEARCH

Robert Stretcher, Executive Editor
Sam Houston State University

Timothy B. Michael, Managing Editor
University of Houston-Clear Lake

2012

Journal of Finance Case Research
The Journal of the Institute of Finance Case Research
Huntsville, Texas
Those interested in subscribing to, advertising in, or submitting manuscripts to the Journal, as well as other communication, should contact the Managing Editor.

Dr. Timothy B. Michael, Managing Editor
Journal of Finance Case Research
School of Business
University of Houston-Clear Lake
2700 Bay Area Blvd, Box 204
Houston, Texas 77058
(281) 283-3193

JOURNAL OF FINANCE CASE RESEARCH

Volume 14 **2012** **Number 1**

CONTENTS

Letter from the Managing Editor

We are pleased to present the 2012 issue of the *Journal of Finance Case Research*, the official journal of *The Institute of Finance Case Research* (IFCR). 2012 was another year of transition for the IFCR. Our structure is being changed to more effectively handle the inflow of quality case manuscript submissions. I would like to thank Robert Stretcher, as Executive Editor, for his upkeep of the journal over the past year or so, and I want to announce that I will be taking over the Managing Editor role again beginning in early 2013.

The IFCR provides an avenue for the writing of cases and their submission for peer review. Cases accepted for publication in the *Journal* have met the quality requirements of a double-blind review process, and are available for use through *Journal* subscriptions or by contacting the *Institute* for multiple copies (for a small fee per copy of the case). Teaching notes are available to instructors desiring to use each case by contacting the *Institute*.

The *Institute* will continue to promote the interaction of casewriters in conference settings. Cases submitted for conference presentation are eligible for the review process for the *Journal*. The overall objective of this activity is to create an outlet for casewriters, and a source of high quality cases for case users.

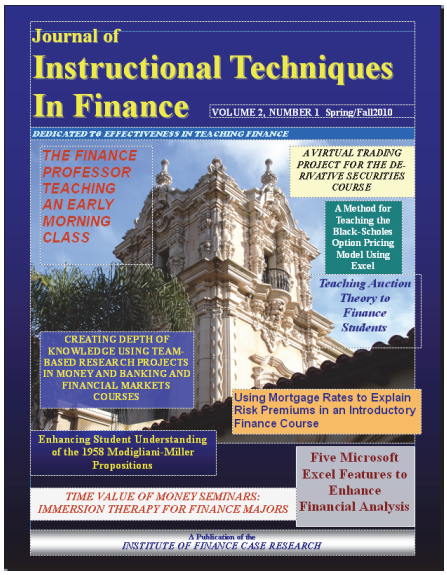
I would like to personally invite casewriters and case users to participate in the activities of the *Institute*. Our case sessions are held at a variety of finance conferences in colorful, interesting locales and provide the opportunity for interaction with others with a similar interest. Our recent conference activities have taken place in Jacksonville, Florida; Denver, Colorado; Dallas, Texas; Maui, Hawaii; Biloxi, Mississippi; Nashville, Tennessee; Las Vegas, Nevada; Chicago, Illinois; and Pensacola Beach, Florida and other great destinations.

We are again sponsoring IFCR case sessions at the *Academy of Economics and Finance* in Charleston, South Carolina in February 2012, and at a variety of other conferences in the near future. All full manuscripts presented at the conferences may be entered in the review process for the Journal. We find that cases presented at our conferences, having had the advantage of being exposed to the scrutiny of experienced casewriters, have a better chance of final acceptance for journal publication.

Our acceptance rate is no more than 25%. The *Journal* is listed in *Cabell's Directory of Publishing Opportunities in Economics and Finance*, and is listed in many other quality informational references.

This issue of the *Journal of Finance Case Research* contains several quality cases. We hope you find these useful. Please visit our website often for updates and conference information. We encourage all parties interested in the production, promotion, and use of cases in finance to become active participants in the IFCR.

Timothy B. Michael, Managing Editor
Journal of Finance Case Research
w w w . j f c r . o r g



Journal of Instructional Techniques in Finance

CALL FOR PAPERS

The *JITF* invites authors to submit manuscripts for publication consideration. The *JITF* is a periodical double-blind refereed journal which began in the Fall of 2008. The *JITF* seeks articles concerning innovative and effective teaching techniques, tools for educators, and especially techniques designed to enhance the student experience in finance courses at the college level. The *JITF* is designed to be useful to finance professors wanting to create better understanding of financial methodologies and analyses among their students. If you have used techniques that have helped you achieve this, please consider formally sharing it through our *JITF* venue.

We recommend formatting submissions according to the required *Guidelines for Authors* on our website. While submissions in any format are considered for conferences, the presumption is that journal publication is the ultimate objective of a submission. If formatted correctly, one less editorial requirement stands in the way of effective revisions.

A *publication fee* of $57.00 per paper is required upon final acceptance of cases for publication in the *JITF*. If a manuscript is accepted for publication, all listed authors must either be *IFCR* members, or must submit the subscription fee prior to publication. Our operations are supported wholly by membership, subscription, and publication fees. We receive no support from universities or conferences.

We sincerely hope the *JITF* can serve your academic publishing needs. Our contact information:

Dr. Steve Johnson, Editor, Journal of Instructional Techniques in Finance
Department of General Business and Finance
Sam Houston State University
Box 2056, Huntsville, TX 77341
(936) 294-1283
sjj008@shsu.edu

PRIVATE EQUITY PORTFOLIO VALUATION AUDIT NEGOTIATION

Diane D. Pattison & Dennis Zocco,
University of San Diego

Laura Hayes is a General Partner with Lincoln Capital Partners, a private equity firm specializing in investing in mid-stage, growing technology and health sciences companies. She just stepped out of her first meeting with Andrea Towers, a partner at the accounting firm of Adams, Crane, and Cooper (ACC), the firm just engaged to audit the valuation of LCP's investment portfolio. During that meeting, Andrea informed Laura that the audit team would be evaluating the processes, methodologies, assumptions made on key variables, and results related to their portfolio company valuations. Laura must face the fact that the audit team from the previous accounting firm was not very rigorous in their approach to the audit, essentially approving the valuation process and results as presented by LCP. Laura now realizes that she faces a new challenge with the ACC audit team. In contrast with the previous accounting firm, ACC's approach is more thorough and analytical. Laura and Andrea have decided to start the audit by first evaluating LCP's current valuation process and then the valuation of one of the portfolio companies, Chemera Corporation. In preparation for that meeting, Laura and Andrea will be valuing Chemera using three methodologies—discounted free cash flow, earnings multiplier, and the Black Scholes Option Pricing Model. Laura will also present LCP's valuation process so that the auditors can evaluate it according to audit guidelines. All three parties expect that they will have to negotiate some or all of the issues on the table at the next meeting to arrive at an agreement leading to a successful audit.

GENERAL INFORMATION

LCP I, the first fund of Lincoln Capital Partners (LCP) with committed capital of $300 million, has been considered a success by the firm's General (managing) Partners (GPs) and Limited (investor) Partners (LPs). The fund is comprised of strong, growing companies run by talented management teams driving solid financial performance. Most of the companies have provided the value creation that the General Partners had anticipated when the investments were made, but some have not. However, both the GPs and LPs understand the risk inherent in the investments comprising a private equity portfolio. Fund-raising for LCP II, the firm's second fund, is already in the planning stage, with a goal of $500 million in committed capital. The GPs believe the continued success of LCP I will attract investors in that fund to commit capital to LCP II.

Several months ago, a group of the key investors in LCP I expressed concern that the accounting firm that performed the previous audits of the LCP financial statements

and portfolio valuations had simply rubber-stamped the valuations of the LCP portfolio companies provided by LCP General Managers. Those investors recommended that a new accounting firm be engaged for the audit of the 2009 valuation of the LCP I fund portfolio. The GPs of LCP assured those investors that although the portfolio valuation was subjective given the nature of private companies, the valuation was a realistic representation of the aggregate valuations of the LCP I portfolio companies. The concerned group of investors expressed approval of the GPs management and performance of the fund but, nevertheless, felt that a new accounting firm for the 2009 audit would provide a fresh perspective on the valuations. They provided a list of accounting firms in which they had confidence, and the General Partners chose Adams, Crane, and Cooper (ACC) from that list based on that firm's experience in private equity valuation audits and their reputation for high ethical standards.

Lincoln Capital Partners

Lincoln Capital Partners LLC (LCP), founded in 2001, is a private equity investment firm specializing in the technology and health sciences industries with offices in San Francisco and Cambridge, MA. LCP raised its first institutional private equity fund, Lincoln Capital Partners I, L.P. (LCP I), in 2002 with $300 million of committed capital invested in 36 companies at an average of $8.33 million per company. The portfolio of companies has shown an 18.8 percent average annual return since its inception, above average for private equity firms during that period.

LCP operates as a typical private equity firm, raising money from accredited investors (limited partners), as defined by Rule 505 of Regulation D of the Securities Act of 1933[1], for the purpose of purchasing equity ownership in private companies that have high value-creation potential and a high probability of an exit event, such as an IPO or acquisition. Limited partner investors in LCP I include many of the largest U.S. and international corporate pension funds, U.S. state pension funds, university endowments and foundations. LCP general partners are also invested. The LCP team consists of ten investment professionals, including four managing partners.

A private equity fund is organized by GPs for a specific size, usually in the $200 million to $500 million range (Fenn, Liang, & Prowse, 1997). LPs commit a certain portion of the total capital in return for a share of the fund's returns. They provide the capital, based on their pro-rata share of the total capital committed, when called upon by the GP, either when the GP is making an investment or when the fund needs operating capital. A private equity fund is typically structured to last for ten years with possible one- or two-year extensions. While the fund exists, the private equity firm will receive a management fee between one and three percent based on the assets committed by limited partners. When the fund is liquidated at the end of its term, the LPs receive their proportionate share of the fund's capital and 80% of the investment profits (if any) in the form of cash or stock, the latter for investments not having some type of liquidity event such as a sale of the company or IPO. The remaining 20% goes to the GPs and is called "carried interest." Some funds have a "hurdle rate", typically between 8-10%, below which the GP receives no share of the fund's profits. LCP has a 2% management fee and a 20%/80% profit split between the firm and its LPs with an 8% hurdle rate below which LCP does not participate in profits.

The investment strategy of LCP is to invest long-term equity capital to support the strategic and financial objectives of outstanding management teams operating businesses with a demonstrable opportunity to significantly enhance a company's value and possessing defensible positions in change-intensive environments (Barber and Goold, 2007; Metrick and Yasuda, 2010). LCP invests in mid-stage growing technology and health sciences companies. These industries are highly fragmented and maintain continuous cycles of innovation. Target markets are characterized by attractive fundamentals, an abundance of relevant market segments, modest capital requirements, low cost of goods sold, and high barriers to entry and switching costs. LCP investments range from $3 million to $18 million. Before investing, LCP conducts a rigorous due diligence process, including a review of management capabilities, products, competitors, industry dynamics, financial performance, and business strategies (Phalippou and Gottschalg, 2009). Investment criteria include:

- Achievable and sustainable cash flow
- Revenues of between $10 million and $200 million
- A steady revenue and earnings history
- Strong brands
- Powerful intellectual property
- Highly skilled work forces
- Proven management teams with equity interests in their companies
- Well-developed business strategies

With a new accounting firm engaged for the audit of the LCP I portfolio 2009 valuation, the firm assigned Laura Hayes, an LCP General Partner based in Los Angeles, to be the leader of the valuation team and LCP's direct contact with the new auditing team. Laura Hayes is currently a Managing Director and focuses on opportunities in the physical sciences and emerging technologies sectors. Since joining LCP in 2005, Laura has been actively involved with the firm's investments. Prior to joining LCP, Laura was a Managing Director of Morgan Stanley in the Private Equity, Financial Sponsors and Mergers and Acquisitions Departments. She received her M.B.A. from Harvard Business School and her B.A. in Mathematics and Physics, with Distinction, from the University of Virginia.

Laura had been involved in the audit of the LCP I fund by the previous accounting firm and, in retrospect, realized that the audit team from that firm had not approached the previous audits with the rigor that LCP had anticipated. The auditors had only a few general questions regarding valuation process and methodologies used and seemed to be easily satisfied with LCP's responses and valuations. Given the reputation of ACC as conducting rigorous but fair audits as well as the concern of the influential group of limited partners over the quality of the previous audits, Laura expects the current year's audit to be much more complete and rigorous. However, she is confident of the portfolio company valuations and stand ready to defend LCP's process, assumptions, forecasts, and methodologies, and, ultimately, valuations.

When a private equity firm invests in a private company for its fund portfolio, the transaction is an exchange of cash (from the private equity firm) for preferred shares (from the private company). The founders and other earlier investors have common

shares. LCP requires that they receive Participating Convertible Shares with cumulative dividends for their investment in all of their portfolio companies (Koeplin, Sarin, & Shapiro, 2000). This type of equity stake in a company gives the holder the right to redeem the original investment plus accrued dividends and, after that redemption takes place, also participate with other common shareholders on a pro-rata basis in the proceeds of the liquidity event (Smith, & Laurent, 2008).

Adams, Crane, and Cooper (ACC)

ACC is a tax, audit, and advisory firm with headquarters in Los Angeles with offices throughout the North America, Europe, and Asia. ACC currently has 27,000 professionals including 1,500 partners. One of the areas for which the firm has developed its excellent reputation is in audit services provided to a wide range of industries. Nearly seventy percent of ACC's professionals and partners are working in the audit area and sixty percent of those professionals specialize in the technology and health sciences industries. One of ACC's newest clients is Lincoln Capital Partners. ACC assigned one of its experienced auditors, Andrea Towers, to lead the LCP engagement.

Andrea Towers became a partner at ACC in 1999 and now leads the audit section of ACC's Technology Services area. Prior to joining ACC, Andrea held various financial positions with Intel Capital, including controller. She received a BS degree in Accounting from Marquette University and an MBA, with honors, from the J. L. Kellogg School of Management at Northwestern University. She holds both a CPA and CFA.

Andrea was chosen for the LCP audit engagement because of their reputation for strictly following AICPA and FASB audit guidelines, engaging in tough but fair discussions on valuation, and negotiating an agreement on those valuations that addresses the positions of both parties on the important issues involved in the audit. In preparation for the LCP audit, Andrea requested and received the materials provided to the previous accounting firm's audit team for last year's audit. They found the materials lacking the detail they would require in conducting one of their audits. They decided that it was best not to question the lack of material or develop opinions as to motive or expertise, but to start with an open mind and positive approach. They anticipated, however, that serious discussions and negotiations would likely occur during the audit in order to arrive at a portfolio valuation that would meet their standards of fairness.

The Initial Audit Meeting

Andrea met with Laura at the LCP offices in San Francisco to begin the valuation phase of the audit. Andrea wanted to gain an initial understanding of the process and methods LCP used in valuing their portfolio companies as that would be a critical element in a successful engagement. Laura wanted to understand more completely the approach that the ACC audit team would be taking in reviewing and ultimately qualifying those valuations (Damodaran, 2002; Stowe, Robinson, Pinto, & McLeavey, 2007). The meeting was held in the LCP conference room. After some preliminary formalities, they focused their discussion on the objectives of the audit.

Laura told Andrea that she was pleased to have the opportunity to explore ways in which they could make the audit a success for both organizations. She also told Andrea

that she realized that one of the audit team's objectives in the meeting is to learn more about how LCP values their portfolio companies. She assured Andrea that she was eager and prepared to discuss that issue. She added that it might be beneficial for LCP to understand ACC's approach to the audit and, more specifically, how LCP can best assist in achieving the audit team's objectives."

Laura replied that the ACC approach to the audit for any company is guided by the AICPA Professional Standards, Volume 1 document[2] and, more specifically, the provisions of AICPA Audit and Accounting Guide Investment Companies. Within that latter document, LCP falls under the definition of an 'investment company', and the investments in your portfolio companies are considered 'Alternative Investments' as they are private companies not listed on national exchanges or over-the-counter markets, or for which quoted market prices are not available from sources such as financial publications, the exchanges, or the National Association of Securities Dealers Automated Quotations System (NASDAQ).

Andrea stated that although alternative investments present unique valuation challenges to investment companies as prices for alternative investments are available only when an 'equity-for-cash' transaction is made and that could occur only a few times from the inception of a company until it goes public, if it ever goes public (Elnathan, Gavious, Hauser, 2010). Fortunately, AICPA standards provide a clear path as specified in AU section 332, Auditing Derivative Investments, Hedging Activities, Investments in Securities (Sections 21, 28, 34, 35, 46)[3] and AU section 328, Auditing Fair Value Measurements and Disclosures of the AICPA Professional Standards[4] as well as FAS 157, Fair Value Measurements[5] (Benston, 2008; Song, Thomas, & Yi, 2010).

Confirming the Existence Assertion

AU section 332.21 requires auditors to verify that current equity stakes in reported portfolio companies, as of the timeframe of the audit, exist thereby confirming the existence assertion. Andrea told Laura that, based on the following steps already taken by the ACC audit team, they are able to confirm the existence assertion:

- We made telephone calls to portfolio companies verifying existence assertion.
- We reviewed the appropriate executed investment agreements.
- We reviewed the most recent correspondence between LCP and portfolio companies.
- We reviewed the latest financial statements of the portfolio companies.

Andrea also stated that auditors of alternative investments have a responsibility to assess the risk, both inherent and control, of material misstatement of the financial statements where materiality is a professional judgment of the auditor involving both quantitative and qualitative considerations. Due to the existence of these risks associated with alternative investments, the ACC audit team is required to confirm (1) that the LCP fair valuation process and controls are adequate and (2) that the techniques for determining portfolio investment fair values are appropriate and that the resultant valuations are reasonable (Landsman, 2007; Ronen, 2008). AU Section 328.04 states the responsibilities of LCP management in these areas.

During their meeting, Andrea informed Laura that, under that guidance, the ACC audit team is interested in the following:

- The process controls you have in place in determining fair values for your investments.
- The qualifications of the valuation team members.
- The degree to which you use technology in the process.
- The documentation maintained in the preparation, support, and final measurement of your fair values.
- The rationale for choosing the techniques you use for fair value measurement.
- The process you use in determining the assumptions used in the fair value techniques you use.
- The management oversight you maintain regarding the fair value measurement process, including timeliness and reliability of information used in the techniques, justification for projections (if applicable) utilized in the techniques, the consistency of approach and use of data across investments valued, and recognition of company-specific as well as business and economic conditions that would alter the value of the investments.

Based upon Laura's description of the valuation process, the ACC audit team may make recommendations for improvements or modifications to the existing process. Laura may or may not agree with some or all of our assessments and recommendations, and that is her prerogative, so both parties may need to negotiate process and controls that satisfy both parties' interests.

Confirming the Valuation Assertion

The definition of fair value that will guide the ACC audit team comes from FASB 157, Paragraphs 18, 19, and 21 through 23. Andrea stated that, since LCP management has the responsibility for the valuation of the alternative investments, the audit team will need to be sure that relevant managers have a sufficient understanding of, first, the nature of the underlying investments, second, the portfolio strategy of the alternative investments, and third, the method and significant assumptions used to value the underlying investments. Andrea assured Laura of her confidence in the first two. However, the third responsibility is critical to our confirmation of the valuation assertion and there needs to be discussions on the valuation techniques and assumptions used. Specific guidance on appropriate valuation techniques is provided in FASB 157, Paragraph 18. That guidance presents three approaches to measuring fair value: (1) the market approach which "uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business)", (2) the income approach which uses techniques such as present value and option-pricing models, and (3) the cost approach which is "based on the amount that currently would be required to replace the service capacity of an asset (often referred to as current replacement cost)." Differences in valuation results between LCP management and the ACC audit teams may exist, so they will need to be resolved for the audit team to successfully confirm the valuation assertion.

Plans for the Next Meeting

For the next meeting, LCP management will need to present to the ACC audit team the information needed for the audit team to take an important step in confirming the valuation assertion. Both parties will have to agree on (1) an acceptable valuation process and (2) the appropriateness of the valuation techniques and assumptions used as well as the actual valuations for all portfolio companies.

With regard to the process LCP uses to value the equity stakes in their portfolio companies, Laura explained that the process has six steps:

1. Determine Enterprise Value using Earnings Multiple Method
2. Calculate Company Cost of Capital
3. Forecast Future Company Free Cash Flows and Terminal Value
4. Determine Enterprise Value using Discounted Free Cash Flow Method
5. Apply Company Composite Small-Size and Illiquidity Discount
6. Calculate the Value of LCP Equity Stake (Preferred Stock)

She explained that because LCP portfolio companies are private companies, they need to impute values from comparable publicly-traded companies for some of the variables used in the two valuation methods. They value their companies as if those companies had the same characteristics of comparable publicly-traded companies and then apply a company small-size and illiquidity discount.

The LCP portfolio is not large by private equity firm standards, but includes thirty-six companies. Andrea decided the audit should look at the valuation of each company individually in order to assess the fair value of the LCP portfolio, but to initiate the audit with one company. In this way, an agreement on the reasonableness of the valuation process, assumptions, and methodology could be reached early in the engagement, setting a precedent for reaching agreements on fair value for the remaining companies and the portfolio as a whole. Andrea looked at the financials of all thirty-six portfolio companies and told Laura that Chemera Corporation was a good representation of the type of company in the LCP portfolio and would serve as a good starting point for their audit.

Chemera Corporation

Founded in 2004, Chemera is a privately-held manufacturer of ultra high purity specialty chemicals for semiconductor (computer chip) and photovoltaic (solar cell) applications. The company develops and manufactures innovative, low-cost specialty precursors for advanced semiconductor and photovoltaic devices. Chemera's new line of low-toxin chemicals addresses the health hazards that exist in the semiconductor manufacturing industry. Furthermore, ChemControl®, Chemera's newest product, provides an industry-first solution to Negative Bias Temperature Instability (NBTI), a key degradation issue that is of concern to all semiconductor manufacturers.

Chemera, located in Pittsburgh, PA, currently employs approximately 115 people in its administrative and manufacturing facilities and produces more than 100 products

formulated from 40 different chemicals. Chemera has experienced rapid and significant growth over the last four years (2005-09) as new and innovative semiconductor and photovoltaic materials have achieved commercial success. The company has key strategic partnerships with Intel, Dow Chemical, and IBM. End users of Chemera products include virtually all of the major chip manufactures, including industry leaders in America, Korea and Europe.

Chemera was founded as a spin-out of a major university. At inception, the university invested $2 million into the company in exchange for a 25% equity position in the new company. Chemera's CEO and CFO each invested $3 million for 25% equity stakes. (CEO and CFO current salaries and year-end bonuses are $250,000; $100,000 and $150,000; $50,000 respectively.) Four research scientists from the university joined the company at inception full-time and each received 6.25% of the company in common shares in addition to their salary. All equity stakeholders held common stock. The initial funding of $8 million (with 20 million common shares issued) allowed the company to quickly commercialize the technologies initiated within the university and generate revenue and positive earnings within six months of inception of the company. No additional funding took place prior to or after the LCP investment.

Paul Powers, CEO of Chemera Corporation, founded Chemera and has more than 18 years of experience in the chemical and semiconductor industries. Prior to Chemera, he held research positions with Dow Chemical and Nvidia. Paul has a Ph.D. in Chemical Engineering from MIT and an MBA from Harvard University. He is the author or co-author of more than 25 papers and has been granted eight U.S. patents. His current salary is $250,000 with a year-end bonus of $100,000.

LCP invested $15 million in Chemera on December 31, 2007, and received 6,399,155 Series A Participating Convertible Preferred shares paying a ten percent cumulative annual dividend for a 24.2% ownership stake in the company on an as-converted basis. At the time of investment, pre-money valuation was established at 5 times 2007 EBITDA (5 x $9.376 million = $46.879 million) resulting in a post-money valuation at $61.879 million. No additional funding has taken place since LCP's investment. The Liquidation Preference paragraph (shown below) of the stock purchase agreement describes one of the key valuation characteristics of the LCP-owned preferred shares.

Liquidation Preference: Upon (i) a sale of all or substantially all the assets of Chemera (an "Asset Sale"), (ii) a merger or consolidation of Chemera with or into any other entity, in which the combined owners of Common and Series A Preferred shareholders of Chemera immediately prior to such merger or consolidation, own less than 50% of the voting power after such merger or consolidation (a "Merger") or (iii) a liquidation, dissolution or winding down of the business (a "Liquidity Event"), holders of the Series A Preferred shares will receive, in preference to holders of all Common shares, an amount equal to the original purchase price plus any accrued or declared but unpaid dividends. After the payment of the Liquidation Preference to the holders of the Series A Preferred, the remaining assets shall be distributed ratably to the holders of the Common Stock and the Series A Preferred on a common equivalent basis.

The first sentence, with its three parts, obligates Chemera to pay LCP, upon a liquidity event, the original investment and all accrued dividends which accumulate at a 10-percent annual rate. There is no expectation by LCP that Chemera will pay a cash

dividend prior to a liquidating event or at a redemption. The second sentence states that after payment of the original investment and accrued dividends, LCP will also participate with common stockholders (founders) on a common equivalent basis in the remaining proceeds from the liquidity event. Since all preferred shares are converted to common shares as a result of the liquidity event, LCP will receive its pro-rated share (24.24%) of the remaining proceeds.

The Next Meeting

During the next ten days leading up to the meeting, Laura provided Andrea with the Chemera financial statements (Exhibit 1) which included both historical and projected performance. Both teams prepared for an in-depth meeting focused on the LCP's valuation process and their valuation assertion on the equity stake in Chemera (Armstrong, Davila, & Foster, 2006). When the day of the meeting arrived, both teams were eager to begin their discussions and the likely negotiations that would lead to an agreement on the critical element of the audit - fair value disclosures.

Note A is included as Exhibit 3 (at the end of the case).

Note B (2007): The Company incurred an extraordinary expense related to the analysis, creation, and implementation of new and enhanced production systems and processes necessitated by significant and unanticipated changes in industry and market conditions.

Note C (2008): The Company incurred an extraordinary expense related to the implementation of a new photovoltaic energy production processes necessitated by significant and unanticipated changes in industry and market conditions.

Note D (2009): The Company incurred an extraordinary expense related to the analysis of enhancements to its solution to Negative Bias Temperature Instability (NBTI).

Note E (2010): The Company incurred an extraordinary expense related to the analysis, creation, and implementation of new and enhanced production systems and processes necessitated by significant and unanticipated changes in industry and market conditions.

Note F (2011): The Company incurred an extraordinary expense related to enhancements to its photovoltaic energy production processes necessitated by significant and unanticipated changes in industry and market conditions.

INFORMATION FOR ANDREA TOWERS, AUDITOR, ADAMS, CRANE, AND COOPER ACCOUNTING FIRM (ACC)

You were pleased with your last meeting with Laura from LCP. The private equity firm general partner seemed to be sincere about working with the ACC audit team to arrive at the best value for the LCP investment portfolio. Nevertheless, you realize that Laura and LCP have an incentive for the valuations of their portfolio companies to be as high as reasonably possible. Higher valuations result in higher returns for their investments and, in the aggregate, a higher return for their investment portfolio which validates their good performance as managers of the LCP I fund. Furthermore, the GPs receive 20% of the portfolio gains, which is a direct function of the individual company valuations, as long as the overall gain of the portfolio is in excess of 8%. This may provide an incentive for overly-optimistic valuations.

In your conversation, Laura revealed that in a few months LCP will start their funding campaign for the LCP II Fund with a goal of $500 million in committed capital. High annual returns on their investment portfolio would certainly help in that funding. So you will have to be diligent in checking for an overly optimistic valuation for Chemera as a sign of a very aggressive and potentially unreasonable approach to the entire portfolio.

The two areas of focus for the next meeting are process and valuation. Laura has the responsibility to provide a description of the LCP valuation process and controls as well as the Chemera valuation. Although it is likely that all private equity firms have valuation processes that are in some ways unique, for auditing purposes, there are benchmarks that need to be present in some form. The following is a series of those benchmarks:

ACC Benchmarks for Private Equity (PE) Firm Fair Valuation Process

1. Have in place a process in which the entity (Private Equity Firm) periodically (ideally quarterly) receives financial statements from the portfolio companies, including balance sheet, income statement, statement of cash flow, and any other relevant information regarding the financial and overall business performance of the company. If there are any changes, proposed or actual, in the company's business model or management team, there should be a process to inform investors.

2. Upon receipt of financial statements and any other relevant information as described in (1) above, entity will analyze the company's business strategy and competitive environment to determine the degree to which the company is operating within its model and how competition is impacting its value-creation ability. If the business model has changed or decisions are being made that would result in a change, evaluate the impact will the change have on the value of the investment in the company.

3. On receipt of financial information on either 1) the valuation date or 2) an interim date on which changes have occurred that are believed to alter the valuation, entity will commence with a new valuation by selecting the appropriate valuation model(s) to value the equity stake in the company. The model(s) should conform to accepted FASB guidelines. If more than one model is used, develop a weighted-average valuation, with each model's valuation given a reasonable weight. (The sum of the weights should equal one.)

4. Analyze historical company performance and relevant new information to gain insights in making projections of future performance.

5. Forecast future performance and select relevant model variable values based on reasonableness and expected economic conditions.

6. Calculate and evaluate valuation based on FASB 157 and other relevant FASB statement providing fair value guidelines.

7. Have an oversight group, not directly involved in the process steps 1 through 6, evaluate the reasonableness of the valuations.

Auditors can conduct internal control testing to determine whether significant deficiencies or material weaknesses in the design or operation of internal control exist with respect to management's process for valuing alternative investments exist. Your team will conduct these tests at a later date. For the purpose of the upcoming meeting, you are interested only in determining whether the LCP valuation process meets the audit benchmark standards established by ACC.

To further assist auditors in this evaluation, a recent white paper developed for ACC internal distribution provides a set of deficiencies related to AU Section 328.04. In summary, they are:

- Lack of management understanding of the nature or extent of the alternative investments held by the entity or the risks associated with such investments
- Lack of a comprehensive policy on strategy and objectives for investing in alternative investments
- Lack of segregation of duties between authorizing and recording alternative investment activity
- Failure to obtain appropriate information, including visibility into the underlying investments, to support the financial statement assertions relative to the estimate of fair value of assets of significant alternative investments
- Instances in which the alternative investment's risk profile does not appear to be consistent with the entity's investment policy.
- Lack of oversight of the valuation process by one or more individuals who are not directly involved in the valuation process but who can ensure that the process has been followed, appropriate models are used in the valuations of LCP equity stakes in portfolio companies, and reasonable variable values are used in the models.

If you feel deficiencies exist, you will need to discuss them with Laura and make recommendations to remove those deficiencies. Laura may not agree with all of your recommendations which will likely lead to a negotiation on the final process that would satisfy you for a successful audit. For that reason, you will need to make initial recommendations that result in the most comprehensive process and the highest level of process control so that if you need to make concessions on some of the points, the final agreement will be satisfactory for a successful audit in this area.

When you have come to an agreement on the fair valuation process, the next discussion issue is the valuation of LCP's equity stake in Chemera.

You will need to determine whether the valuation methods used by LCP are acceptable based on auditing guidelines. Laura indicated that LCP uses the multiplier and discounted free cash flow methods. Both are acceptable within auditing guidelines.

Exactness is embodied in the application of the valuation models, not in the valuation result. All valuations of private companies (and alternative investments, in general) are subjective. They are based on both actual and estimated variable values used in the valuation models. Many of these variable values are based on assumptions of future financial performance and the risk associated with that performance. The results determined by any valuation model can be very sensitive to the variables values. This sensitivity presents challenges to the audit team in confirming the valuation assertion.

As Chemera will be the first portfolio company valuation for the audit, you will need to evaluate for reasonableness each model variable value (see Table A.5) used by LCP to determine their general approach to their valuations. Variables used in valuation models can be characterized as "single point", "range", or "derivative" variables. Single point variables have specific values at points in time, although there could be variations on that value, such as the risk-free rate as either the T-Bill, 5-year T-Bond, or 10-year T-Bond rate. "Range" variables have a range of possible values within which an appropriate value can be chosen. One end of the range represents conservatism and leads to a conservative valuation. The other end of the range represents optimism and results in a more aggressive approach to the valuation. Most of the variables in the valuation models are "range" variables, such as the EBITDA, sales, and book value multipliers, the equity risk premium, D/E ratio, and more. "Derivative" variables derive their value from other financial metrics. For example, free cash flow is derived from the financial metrics in the income statement. The weighted average cost of capital (WACC) is derived from the combination of the cost of debt, cost of equity, and D/E ratio.

Although you are not looking for any specific value for each variable, you should be wary of all variable values estimated aggressively. This would result in a valuation that is overly optimistic and potentially unreasonable and unrealistic. You should look for variable values reflecting normal operating and financial conditions for the company.

For example, you want to make sure that the actual trailing twelve months EBITDA used in the earnings multiple method is a reasonable one. If, for instance, there were unusually high or one-time revenue bookings or low costs associated in the current year, the EBITDA figure might be inflated and not represent the true ability of the company to generate EBITDA. Also, past free cash flows may not provide sufficient insights into the ability of the company to generate future free cash flow if the financial statements infer a need for fixed asset replacement, possibly at a higher cost than previously incurred.

Furthermore, the valuation is very dependent upon the earnings multiplier chosen and that multiplier is a very subjective metric. So the simplicity of the method provides leeway for a subjectively high valuation. Furthermore, the earnings multiplier method cannot be used if the EBITDA for the current year is negative. In those cases, an alternative approach is to use a revenue multiplier method. It has the same benefits of simplicity and industry-wide use, but also the same disadvantages of relying on the validity of the current year revenue and the extremely subjective revenue multiplier.

In valuation audits, ACC typically looks first at financial statement areas where earnings and free cash flow may not reflect normal conditions or where accounting practices may be aggressive and potentially overvalue the company. Examples of these areas are officer compensation, revenue recognition, and extraordinary expenses that may, in fact, be recurring and therefore be a normal operating expense.

For example, officers may be receiving compensation that is either more or less than the market-based compensation representative of that received by an officer in the area in which the company resides. The audit team did some research on www.salary.com and found that in the Pittsburgh, PA, area, the average salary and bonus for a CEO is $679,304 and $409,481, respectively. For a CFO, it is $322,364 and $136,893. For a COO, it is $435,394 and $210,958. An adjustment to that expense line item to reflect the market-based compensation would be reasonable and would impact the EBITDATTM variable used in the valuation (see Figure B.1 for current information regarding CEO, CFO, and COO compensation in the Pittsburgh area). Therefore, the income statement should be analyzed to determine whether the trailing twelve months of revenues, costs, and expenses are representative of a normal operating year for the company, with adjustments made for any abnormalities.

With respect to free cash flow, those projected values originate with revenue projections. It would be a mistake to look simply at projections of net income to validate free cash flow forecasts without examining the components that comprise net income. A company's business model is designed to generate revenue from the sale of goods and/or services. The business strategy developed and implemented by management is designed to expand the ability of the company to generate revenue and earnings. If a company has been in existence for 3-5 years, management has likely demonstrated the efficacy of the business model in generating revenue growth. If management continues to implement strategy successfully, then growth will continue with certain opportunities and constraints that have the potential to both enhance and constrain growth.

Enhancement of growth requires some change in the business plan or a change in the economic and competitive environment in which the company operates. If a departure from historical growth is projected, then management needs to be able to explain the reasons for that change with respect to the company's business model.

Two factors represent a constraint on growth. One is the ability of the company to finance growth. Unless the company is growing organically (financing internally from operating cash flows), then external financing will likely be required. Without access to external financing and adequate internal financing, growth is constrained. The second factor constraining accelerating growth rates is the impact of an increase in the scale of the company. Although the company may continue to experience growth, the rate of that growth will be more difficult to maintain from larger base levels than smaller one's existing earlier in the company's life. It is more difficult to grow at a 40% rate from revenues of $2 million that it was when revenues were $30 million.

Cost of goods sold is another component of net income. This measure reflects the cost to the company of producing the company's products or services. Gross profit margin is a key performance measure related to cost of goods sold. [Gross Margin = (Revenue – Cost of Goods Sold)/Revenue] Any significant change in the company's gross margin needs to be satisfactorily explained.

Expenses of the company are the third component of net income. The auditor needs to look closely at the key expenses of the company to see if they are in line with historical levels. A reference for reasonableness of company expenses is industry averages. Expense line items as a percentage of revenue should be within a reasonable range of industry averages. Otherwise, management needs to explain the departure. A key expense to review is executive compensation. Often, net income needs to be "normalize"

to reflect market compensation levels for key company executives if actual compensation differs from market.

Auditors should also review extraordinary charges that are not included in operating expenses, especially if the company has had recurring extraordinary charges, to determine whether they should be included with normal, recurring expenses to determine net income.

For the free cash flow projections used by LCP in determining the value of Chemera using the discounted free cash flow method, they will need to explain the bases for their projections, especially if they deviate from the recent trend in free cash flow generation.

After you have calculated the weighted-average valuation of Chemera, you will need to determine the value of LCP's equity stake in the company. The two approaches used by LCP seem valid but they are not identified specifically in the audit guidelines as appropriate methods. The use of the Black-Scholes Option Pricing model is identified in FASB 157, Paragraph 18 and the AICPA's Practice Aid, Valuation for Privately-Held Company Equity Securities issues as Compensation, Paragraph 149. Using the value you determined for Chemera, you have decided to use the Black-Scholes Equity Allocation Model to determine the value of LCP's equity stake in Chemera. Smith & Laurent (2008) presented a model that you can use to value LCP's equity stake in Chemera. Your results should only be revealed after Laura explains her variable values and resulting valuations. If there are differences, they will need to be resolved through negotiations toward an agreement on the use of variable values that you feel comfortable as the auditor of the valuations to be reasonable.

The multiple-model approach that LCP has in valuing there company falls within audit guidelines. However, the LCP statement at the end of Step 5 in the LCP valuation process indicates that LCP will use "…the valuation deemed most appropriate to the portfolio company…" This leads you to believe that LCP might run different valuation models and select the result with the highest valuation. Paragraph 19 of FASB 157 addresses the use of multiple valuation techniques. It reads:

If multiple valuation techniques are used to measure fair value, the results (respective indications of fair value) shall be evaluated and weighted, as appropriate, considering the reasonableness of the range indicated by those results. A fair value measurement is the point within that range that is most representative of fair value in the circumstances.

In light of that guidance, you believe a weighted-average valuation is appropriate. You will need to assign weights to each of the valuations based upon a judgment as to the degree of their appropriateness, with the total of all weights equaling one. For example, if comparable publicly-traded companies were difficult to identify and only a few comparable multiples were used in deriving an earnings multiple for the LCP portfolio company, the result of the valuation method using comparable company data might be less appropriate, so a lower weight(s) may be justified.

You will need to be wary of the valuations from the various models being too scattered on a representative value scale. Although the use of multiple valuation models will not provide exactly the same results, they should be within a reasonable range if variable values are based on consistent assumptions across models.

INFORMATION FOR LAURA HAYES, GENERAL PARTNER, LINCOLN CAPITAL PARTNERS (LCP)

Your meeting with the auditing team from the new accounting firm went well. Andrea seems to be conscientious yet reasonable in her approach to the upcoming audit of the LCP equity stakes in its portfolio companies, starting with Chemera Corporation. However, you are relatively sure that the upcoming audit will be more rigorous than the audits performed by the previous accounting firm. From the discussions at the last meeting, Andrea will conduct the audit strictly "by the book" as stated by the appropriate FASB and other auditing guidelines. They will be expecting you to present two sets of information that will influence their confirmation: (1) the LCP process and controls in place for determining and monitoring fair values of the portfolio investments are adequate, and (2) the techniques LCP uses for determining portfolio investment fair values are appropriate and that the resultant valuations are reasonable.

Regarding your promise to provide information on the process and controls in place for determining and monitoring fair values of the portfolio investments, you are troubled by how to move forward on this. You now realize that the previous accounting firm was somewhat lax in their review of the fair value process and controls which led you to be less than stringent in these areas. In fact, as you look more closely at the process and controls currently in place, you believe that they would draw concerns from the new auditors. Currently, you simply ask for year-end financial statements from all your portfolio companies, some audited at the company level by an accounting firm chosen by the company. Most of the financial statements, however, are only reviewed by a CPA chosen by the company. There is no further auditing of the financial statements of the company after they are received by LCP. Even though LCP managing partners trust the management of the portfolio companies and in light of the new accounting firm performing the audit, you believe that the current process and controls now in place are not sufficient.

You have decided that a major restructuring of the process with new, more rigorous controls needs to be developed and implemented immediately. Once this is completed, you will be able to inform the new auditors of the process and controls in place for upcoming years. Should you tell the auditors that the process and controls you describe are newly implemented? Should you inform them of the previous process and controls which you are certain will be looked upon as insufficient? Regardless of how you resolve these questions, for the next meeting, you will need to present your newly-developed process and controls for determining and monitoring fair values of the portfolio investments.

The valuation policy of LCP has always been to take an aggressive approach to the valuations, relying on the subjectivity inherent in the valuation methods to stay within audit boundaries, albeit the upper boundaries. This has made all stakeholders happy – LCP general and limited partners as well as the common stockholders in the portfolio companies who in almost all cases see the values of their common stock increase annually.

The LCP procedure for valuing the equity stakes it holds in its portfolio companies is set by the firm's six-step process (explained in Part A) given to the audit team at the last meeting. A key element of that process is to value each portfolio

company. You have already taken the first step toward valuing the first of the portfolio companies – Chemera Corporation. You have requested and received pro-forma financial statements (Exhibit 1 in the General Information) from Paul Powers, CEO of Chemera.

Chemera is one of the best performing companies in the LCP portfolio with respect to creating value, at least based on the annual valuations done by LCP which have been unchallenged by the previous accounting firm's audit teams. Paul's pro-formas reflect his management style on motivating manager performance. He is aggressive in making his financial projections and believes that style produces "overachieving" performance by his managers. Chemera actual performance often does not meet the pro-forma levels, which does not seem to concern Paul. However, you believe that the aggressive projections which establish the free cash flow values used in the Discounted Free Cash Flow Method may concern the auditors.

Your next step is to perform the valuation on Chemera based on the LCP six-step process valuation process and then determine the value of LCP's equity stake in the company. In your meeting with Andrea, she did not object to the two methods you use for calculating the equity stake value, but recommended the use of another method utilizing the Black-Scholes Option Pricing Model identified in FASB 157, Paragraph 18 and the AICPA's Practice Aid, Valuation for Privately-Held Company Equity Securities issues as Compensation, Paragraph 149 (both shown in Part A). Since that model seems to have some significance in the audit process, you have decided to use it, in addition to the two LCP approaches, to gain another data point for the equity stake value. Smith & Laurent (2008) presented a model that you can use to value LCP's equity stake in Chemera. Your valuation approach is to value the companies using multiple methods and then select the valuation that seems to be most reasonable, but that reasonableness has always been skewed toward the optimistic.

The results of the valuation models are sensitive to the variable values used. These variables can be characterized as "single point", "range", or "derivative" variables. Single point variables have specific values at points in time, although there could be variations on that value, such as the risk-free rate as either the T-Bill, 5-year T-Bond, or 10-year T-Bond rate. "Range" variables have a range of possible values within which an appropriate value can be chosen. One end of the range represents conservatism and leads to a conservative valuation. The other end of the range represents optimism and results in a more aggressive approach to the valuation. Most of the variables in the valuation models are "range" variables, such as the EBITDA, sales, and book value multipliers, the equity risk premium, D/E ratio, and more. "Derivative" variables derive their value from other financial metrics. For example, free cash flow is derived from the financial metrics in the income statement. The weighted average cost of capital (WACC) is derived from the combination of the cost of debt, cost of equity, and D/E ratio.

In the past, LCP has always selected very aggressive variable values, that is, values that would lead to higher valuations. You will continue with that policy for two reasons. First, since projections in previous years have been aggressive leading to significant increases in valuations for the company, a shift to a more conservative approach to the projections would likely lead to a deceleration in projected growth. This is a critical year for portfolio performance as it sets the stage for the effort to gain a $500 million commitment for the LCP II fund. A decline in the annual return on the LCP I

fund from the average annual return of 18.8% to-date may jeopardize the funding of LCP II.

Second, you don't want to immediately concede your aggressive approach to the valuations for Chemera as that would set a precedent for the approach taken for all the companies in the portfolio which might have a dramatically adverse effect on the performance of the portfolio.

In the end, an unsuccessful audit would result in even greater jeopardy for funding LCP II. Therefore, if a negotiation with the auditors on variable values and ultimate valuations occurs, you will need to find a common ground in an agreement where the interests of both parties (LCP and the ACC auditors) are addressed. You now need to determine the most appropriate valuation of Chemera and, in through the Black-Scholes option pricing model, LCP's equity stake in Chemera in preparation for the upcoming meeting with the auditors.

ENDNOTES

1. www.sec.gov/answers/accred.htm
2. www.aicpa.org/research/standards/codeofconduct/downloadabledocuments/2011june1codeofprofessionalconduct.pdf
3. www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-00332.pdf
4. www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-00328.pdf
5. www.fasb.org/pdf/aop_FAS157.pdf

REFERENCES

American Institute of Certified Public Accountants (2005a) *Professional Standards, (Vol. 1, Section 328)*. New York, NY: American Institute of Certified Public Accountants, Inc. Retrieved February 20, 2012, from http://pcaobus.org/Standards/Auditing/Pages/AU328.aspx

American Institute of Certified Public Accountants. (2005b) *Professional Standards, (Vol. 1, Section 332)*. New York, NY: American Institute of Certified Public Accountants, Inc. Retrieved February 20, 2012, from http://pcaobus.org/Standards/Auditing/Pages/AU332.aspx

American Institute of Certified Public Accountants. (2010). *Investment Companies - AICPA Audit and Accounting Guide*. New York, NY: American Institute of Certified Public Accountants, Inc.

Armstrong, C., Davila, A., & Foster, G. (2006). Venture-Backed Private Equity Valuation and Financial Statement Information. *Review of Accounting Studies*, 11(1), 119-154.

Barber, F., & Goold, M. (2007). The Strategic Secret of Private Equity. *Harvard Business Review*, 85(9), 53-61.

Benston, G. J. (2008). The Shortcomings of Fair-Value Accounting Described In SFAS 157. *Journal of Accounting and Public Policy*, 27(2), 101-114.

Damodaran, A. (2002). *Investment Valuation*. New York: John Wiley & Sons.

Elnathan, D., Gavious, I., & Hauser, S. (2010). An Analysis of Private Versus Public Firm Valuations and the Contribution of Financial Experts. *The International Journal of Accounting*, 45(4), 387-412.

Fenn, G. W., Liang, N., & Prowse, S. (1997). The Private Equity Market: An Overview. *Financial Markets, Institutions & Instruments*, 6(4), 1-106.

Financial Accounting Standards Board (2008), *Statement of Financial Accounting Standards No. 157 - Fair Value Measurements*. Norwalk, CT: Financial Accounting Standards Board. Retrieved February 20, 2012, from http://www.fasb.org/pdf/aop_FAS157.pdf

Ibbotson Associates. (2010) *Ibbotson SBBI 2010 Valuation Yearbook. Market Results for Stocks, Bills, and Inflation 1926-2009*. Chicago, IL: Morningstar, Inc.

Koeplin, J., Sarin, A., & Shapiro, A. C. (2000). The Private Company Discount. *Journal of Applied Corporate Finance*, 12(4), 94-101.

Landsman, W. R. (2007). Is Fair Value Accounting Information Relevant and Reliable? Evidence from Capital Market Research. *Accounting and Business Research*, 37(1), 19-30.

Metrick, A., & Yasuda, A. (2010). The Economics of Private Equity Funds. *Review of Financial Studies*, 23 (6): 2303-2341.

Phalippou, L. & Gottschalg, O. (2009). The Performance of Private Equity Funds. *Review of Financial Studies*, 22(4), 1747-1776.

Ronen, J. (2008). To Fair Value Or Not To Fair Value: A Broader Perspective. *Abacus*, 44(2), 181-208.

Smith, A., & Laurent, J. C. (2008). Allocating Value among Different Classes of Equity. *Journal of Accountancy*, 205(3), 50-57.

Song, C. J., Thomas, W. B., & Yi, H. (2010). Value Relevance of FAS No. 157 Fair Value Hierarchy Information and the Impact Of Corporate Governance Mechanisms. *The Accounting Review*, 85(4), 1375-1410.

Stowe, J. D., Robinson, T. R., Pinto, J. E., & McLeavey, D. W. (2007). *Equity Asset Valuation*. New York: John Wiley & Sons.

Exhibit 1. Chemera Corporation Income Statement ($000s)

	2006(a)	2007(a)	2008(a)	2009(a)	2010(a)	2011(a)	2012(p)	2013(p)	2014(p)	2015(p)
Net Sales	8,704	20,367	34,217	49,615	68,965	97,930	132,205	178,477	240,944	325,275
Cost of goods sales	6,276	14,339	24,294	34,383	47,310	67,865	89,900	121,364	163,842	221,187
Gross Profit	2,428	6,029	9,923	15,232	21,655	30,064	42,306	57,113	77,102	104,088
Officers Comp. (Note A)	56	141	253	377	538	823	1,586	2,142	2,891	3,903
Salary-Wages	226	713	1,061	1,836	2,621	3,525	7,403	9,995	13,493	18,215
Rent	2	4	21	30	41	59	79	107	145	195
Advertising	44	102	171	248	345	490	661	892	1,205	1,626
Benefits-Pension	44	122	222	422	690	979	1,586	2,142	2,891	3,903
Research & Development	522	1,222	2,053	2,977	5,517	7,834	10,576	14,278	19,276	26,022
Other SG&A Exp.	174	468	924	1,737	2,483	2,252	2,644	3,570	4,819	6,505
EBITDA	1,361	3,257	5,218	7,606	9,421	14,102	17,768	23,987	32,383	43,717
Depr.	210	231	254	280	307	369	406	446	491	540
EBIT	1,151	3,026	4,964	7,326	9,113	13,733	17,363	23,541	31,892	43,177
Interest	0	-21	174	174	174	174	174	174	174	174
Taxable Income	1,151	3,047	4,790	7,152	8,939	13,559	17,188	23,367	31,717	43,002
Taxes	380	1,066	1,676	2,503	3,129	4,745	6,016	8,178	11,101	15,051
Net Income before extraordinary items	771	1,980	3,113	4,649	5,810	8,813	11,172	15,188	20,616	27,952
Extraordinary items (Notes B through F)	0	16	42	65	78	73	0	0	0	0
Net Income after Extraordinary Items	771	1,964	3,071	4,584	5,732	8,740	11,172	15,188	20,616	27,952

Exhibit 2. Chemera Corporation Balance Sheet ($000s)

	2006(a)	2007(a)	2008(a)	2009(a)	2010(a)	2011(a)	2012(p)	2013(p)	2014(p)	2015(p)
Assets										
Current assets										
Cash and marketable securities	8,000	6,330	5,295	6,021	18,700	21,870	23,325	25,457	28,700	33,478
Receivables	1,915	4,277	8,212	10,915	17,241	21,545	29,085	39,265	53,008	71,560
Inventories	522	1,426	2,737	2,977	4,483	5,876	7,932	10,709	14,457	19,516
Other current assets	609	1,426	2,395	3,473	4,828	6,855	9,254	12,493	16,866	22,769
Total current assets	11,046	13,458	18,640	23,386	45,251	56,146	69,597	87,924	113,031	147,324
Fixed assets										
Tangible fixed assets										
Property, plant, and equipment	5,250	5,775	6,353	6,988	7,687	9,224	10,146	11,161	12,277	13,505
Total tangible fixed assets	5,250	5,775	6,353	6,988	7,687	9,224	10,146	11,161	12,277	13,505
Intangible fixed assets										
Other intangible fixed assets	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total intangible fixed assets	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total fixed assets	10,250	10,775	11,353	11,988	12,687	14,224	15,146	16,161	17,277	18,505
Total Assets	21,296	24,233	29,993	35,374	57,938	70,369	84,743	104,084	130,308	165,829

Exhibit 2. Chemera Corporation Balance Sheet ($000s) (continued)

Liabilities and shareholders' equity										
Current liabilities										
Accounts payable	525	1,671	2,561	3,294	5,047	8,666	11,867	16,020	21,627	29,197
Total current liabilities	525	1,671	2,561	3,294	5,047	8,666	11,867	16,020	21,627	29,197
Long-term debt	0	-176	1,453	1,453	1,453	1,453	1,453	1,453	1,453	1,453
Deferred liabilities										
Total liabilities	525	1,495	4,014	4,747	6,500	10,119	13,320	17,473	23,080	30,650
Shareholders' equity										
Common stock and other paid-in capital	20,000	20,000	20,000	20,000	35,000	35,000	35,000	35,000	35,000	35,000
Retained earnings	771	2,738	5,978	10,627	16,437	25,251	36,423	51,611	72,227	100,179
Total shareholders´ equity	20,771	22,738	25,978	30,627	51,437	60,251	71,423	86,611	107,227	135,179
Total liabilities and shareholders' equity	21,296	24,233	29,993	35,374	57,938	70,369	84,743	104,084	130,308	165,829

Exhibit 3. Note A, Officers' Compensation (Salary plus bonus, $000s)

	2006	2007	2008	2009	2010	2011
CEO	0*	41	100	100	173	388
CFO	56	100	153	175	215	235
COO	**	**	**	100	150	200
***CEO did not take compensation.**						
****COO position not filled**						

RAYYA MINERAL WATER BOTTLING FACTORY

Said Elfakhani, Lebanese American University
Abdeljalil Ghanem & Yusuf M. Sidani, American University of Beirut

On a Tuesday morning in early January 2005, Ramsey, the Chief Financial Officer (CFO) of Rayya Mineral Water Bottling Factory in Abu Dhabi, found the following memo on his desk:

"You are kindly invited to attend an emergency management meeting today at 10:00 o'clock in the morning in our headquarters offices. The chairman wants to relay to you important news about the future direction of this company. Please do not forget to bring with you summary sheets, including our key financials for the past four years."

The same letter had been sent by email, indicating that the meeting was evidently extremely important. Ramsey reflected on the possible reasons for such a meeting.

The meeting started at 10:00 a.m. The chairman welcomed the participants and immediately said, "I had a meeting yesterday with His Highness the Minister of Water Resources and Energy. As you know, our organization has, since its inception, been government-owned, although, for the most part, we have tried to run it like a business. The government, based on recent directives from the country's leadership, has been moving into a serious process of privatization. Rayya Factory is a candidate to be privatized, and we need to come up with a suggested value. Under more normal circumstances, we would hire an outside consultant to do the job, and may have to do that eventually. But we need to give the minister a "preliminary" internal valuation report. He wants to form an idea how much this mineral water factory is worth"

As the meeting unfolded, it became apparent that this was a job to be handled by Ramsey and his team. The chairman, at the end of the meeting, smiled as he was addressing Ramsey: "I know that you may never have conducted a valuation since you have joined this company. I really don't know whether you ever made a valuation. What is important to me is that you form a team and give me a figure in one month. Any information that you need will be at your disposal. In addition, your team should address the question we have been tackling: Is it better to restructure before we privatize or just leave it to the new owner? How would the valuation process be affected by restructuring vs. privatization plans? Enlighten me!"

Ramsey acknowledged the task. As he was leaving, he thought to himself, "I know that I studied valuation in my MBA program, but aside from small consulting assignments here and there before I joined Rayya, I have never conducted a real valuation for a company of this size. I need a team and I need it now!"

BACKGROUND

The Mineral Water Factory was established in 1996 on a green field site in Rayya some distance away from Al Ain (200 km northeast of Abu Dhabi, the capital of the United Arab Emirates (UAE); see Figure 1 for a map of the UAE). The Mineral Water Factory was designed to operate under license from a major mineral water company in Europe ("Vittelle" of France).

The main business activity of "Rayya Mineral Water" has included the production of 0.5 and 1.5 liter bottles of natural mineral water. In addition, the factory has produced its own bottles, caps, labels, and cartons in a completely integrated production line. The factory's production capacity in 2004 was 140,000 bottles/day (i.e., 42 million bottles/year on 299 working days) with either or a mixture of 1.5 and 0.5 liter bottles. The most critical raw material was, of course, water. The aquifer was rain-fed, and the catchments area was the mountain located over the border with Oman, which formed a valley flowing down to Rayya, located at the head of said valley. Hydrological surveys made by the factory's technical team indicated that there should be at least 10 years of water supplies, and unless there was a complete lack of rain for three consecutive years, the supplies were expected to last for a long period without interruption. In addition, sufficient and continuous supplies of water could reach Rayya from the Abu Dhabi water desalination plant where the desalinated water could be blended with the local Rayya water to facilitate the preparation of a genuine product, fine-tuned by a sophisticated process to improve taste. This implies that water supply would not be disrupted in the near future. The supplies of all the other materials, such as pallets, hygiene products, face masks, ear muffs clean overalls, were available Hence, there were sufficient alternatives for multi–sourcing if necessary.

Staff costs were less than 20 percent of total costs. The total staff of the company was 155 employees, 150 of which were responsible for operations in various departments and 5 for general management. This was determined by management to be a reasonable number for operating a three-shift factory. The top management team included an operating manager and a finance manager, with no senior marketing manager. The factory general manager was in charge of marketing..

The company was owned by "Sagor," the investment arm of the government, but ran as an independent business. Nevertheless, numerous controls over the authority and initiatives of management were instituted by the government. Middle managers often complained that the present system of control and oversight was inappropriate and hindered operational efficiency (e.g., controls over whether or not to hire an additional maintenance laborer). While the need for central control and direction was recognized, the present system of control was deemed inadequate by some managers. As Naji, the quality control manager, noted, "Our present monitoring and control system interferes with menial small matters that should be addressed elsewhere in the organization. Control has increasingly become a cause of both business tension and operational inefficiency, as it delays decisions and dilutes management initiative."

While there was no evidence of serious conflict among plant managers, the degree of control was a cause of both tension and inefficiency, as it delayed

decisions and stunted management initiative. Most employees were recruited as fully trained operatives experienced in their particular functions, so other than orientation sessions educating new staff on factory procedures, little training was needed.

Earlier internal company reports indicated that the "mineral water factory was well- managed, but there was potential to improve efficiency and capacity utilization (and thus revenues and profitability)". According to an earlier production report, "Efficiency could be improved by solving some reported problems with the molds and bottle tops, including the injection molding frequently dying or the disruption in the supply of plastic raw materials for the bottle screw caps, which is constraining bottle supply, and consequently, capacity utilization."

The report also suggested that "capacity could be significantly increased, and growth [could be] secured with a new investment in bottle blow molding machines (caps and silos) to raise the production to 200,000 bottles/day or 60 million bottle/year (a 42% increase). This would cost an estimated Dhs 18 million (1US$ = 3.685 Dhs)."

A recent assessment by the factory commercial team and association of supermarkets showed that, although Rayya factory was a new entrant into the bottled-water market relative to other competitors, it had already established a strong position in the market. However, the factory supply of water bottles was below market demand. According to independent market studies, the taste of Rayya water was preferred among the Abu Dhabi emirate consumers.

Although the company benefitted from preference in government purchases, it did not rely on those privileges, and was competitive in price, quality and taste. The demand for bottled mineral water was strong throughout the UAE, as there was a persistent tradition of drinking bottled water coupled with a discomfort with domestic tap water. This tradition, combined with the high disposable incomes of consumers, meant that bottled water was perceived of as a basic necessity rather than a luxury, so that the level of demand was determined more by the size and growth of population than by the economic factor of demand. The implication was that the mineral water sector presented a viable business, and that the main risk of the company consisted in operational management, aimed at maintaining or increasing market share successfully. The Rayya factory does not keep a breakdown analysis of its customer base although it has a list of outstanding accounts. However, the sales are diversified: 50 % of sales are directed to the Northern Emirates, 45 % to Abu Dhabi and Al Ain and about 5 % to Oman, Qatar and Bahrain. The main competitors of the company are other bottled water brands produced in the UAE and Oman, in particular Massafi, Jeema and Gulfa. The European bottled waters, such as Evian and Vittelle, have a limited market share because of their high price. According to information from the supermarket retailers in Abu Dhabi, Rayya water is the most popular brand in Abu Dhabi. The company had a "happy" position in the market, but there were concerns associated with business complacency. Improving marketing through management of competitive factors, such as quality, price, taste, and brand image, was thought to be particularly essential.

THE UAE CAPITAL MARKETS

A critical question is how the structure of the market will influence the future trading and pricing of the shares after they have been sold to the private sector. There is concern that the share price not be too volatile or manipulated to the detriment of the small investor. Concerning the initial attractiveness of the Rayya shares at the time of the first offer for sale, field interviews with investors and stockbrokers have indicated that the attractiveness of the shares is determined not simply by price but by a combination of factors:

- Careful and competitive pricing of the share sale so that the amounts which can be bought are low and simple enough for small investors, while large enough to interest a big investor.
- The promise of a good return on investment (estimated to be at the level of 15 % per year), consisting of a high dividend yield at least equivalent to the bank deposit rate (currently at 6 % - 6.75 %), and a good capital growth between 8.25% and 9.0%.
- The continuing attractiveness of shares after privatization would depend on the success of the management in increasing the shareholder value. The cash flow projections should indicate that the choices range from distributing almost all the total earnings with a 15% dividend, to distributing only 40% of the total earnings and retaining 60% for reinvestment, through a 6 % dividend. The 15 % dividend would leave very little room for re-investment, and consequently, the share price could be expected to progressively deteriorate in the course of 2006-2015, because the shareholders and management are not adding value to the company through new injection of investment. The recommendation is for a dividend policy of about 7.5% initially, as this is a high dividend yield. It is higher than the highest available bank deposit rate (6.75 % offered by Al-Mashreq, a leading bank located in the UAE), and it still leaves a substantial margin for the directors and management to use for re-investment and expansion.

THE TASK - PLANS FOR PRIVATIZATION

Ramsey, in his capacity as CFO and head of the valuation committee, assembled a small working group, with a number of qualified assistants, to handle the valuation assignment. He invited key persons from various departments whom he thought would contribute to the assignment. The members were: Sari (Chief Operating Officer - COO), Jamil (Head of the Strategic Planning Committee), and Naji (Quality Control Manager). During the first meeting with the group, Ramsey gave an extensive presentation pertaining to the privatization initiative. Sari surprised everyone with the question, "So can anybody please tell me, why we are going through privatization? We've been working so well over the past few years, so why change?"

Ramsey smiled, answering back, "Well, we all like the old way of doing things. But –you know- there is this wave of privatization in the region and everybody is doing

it. Based on the discussions I have had with key officials from the government, I understood that the main objectives for the privatization of such factories include attaining the benefits associated with privatization as observed in other parts of the world, such as improved economic efficiency of the companies, removal of distortions in the economy, generation of government revenues that can be reinvested for public welfare, and general improvement in national economic competitiveness. These objectives are supposedly attained by the transfer of ownership of the factories to the private sector, and also by a necessary degree of restructuring of the enterprise before or after privatization."

Jamil nodded agreeing, "Before I joined this company, I used to work at another government organization that went into the process of privatization and guess what… I lost my job. At any rate, privatization –I am told - fosters an "industrial investment culture" in Abu Dhabi (Capital of the UAE (United Arab Emirates)), which will provide opportunities for citizens and encourage them to invest in manufacturing and thereby participate in national economic diversification."

Sari asked again, "I am still unsure about our new priorities - is it to restore the factories to a competitive position, so that they are sufficiently attractive to a potential investor? Why isn't restructuring simply left to the business judgment of the new owners and their management?

Jamil responded, "The degree of restructuring in this case will depend on the objectives of privatization, be it maximizing the state treasury revenues from privatization, or alternatively ensuring that the full potential value of the company is publicly recognized and incorporated into the sale price. This is often done to protect the sellers from the concern that they are giving away a public asset at a low price which enables the new private owners to make windfall profits."

Sari queried, "Wouldn't it be better if decisions on expansion of capacity be left to the new owners given their own business objectives? Shouldn't the valuation be made on the basis of the company's present structure as a going-concern?"

Ramsey answered, "I would say yes! The valuation, however, has to take into account the potential for expansion; otherwise, the company might be sold off at a low price which does not fairly represent its intrinsic capacity to generate profits for the new owners. It can also reflect on public perceptions of the valuation of other government-run companies. This potential could be quantified through the use of alternative growth scenarios."

Next, Naji asked, "But wouldn't you agree that Rayya operates within a limited growth business? You know that a mineral water factory is not exactly an ISP (Internet Service Provider). Although the company makes money, I would say that the growth opportunities are not there in our industry, at least when we compare them to other industries. Wouldn't you agree?"

Ramsey responded, "Definitely! Sagor (the holding company) has limited opportunities for growth because its companies are long established companies in a mature business (even the water bottling factory is a mature business, despite the fact that it is a new company). I think there should be one more discussion meetings on issues related to valuation models."

A few days later, Ramsey called for another meeting with his team. He was still reflecting on the information and opinions that he had heard and read so far. He also reviewed his MBA class notes and related textbooks. Of course, being a non-

listed company makes the valuation process doubly difficult. Hence, several valuation models should be used to come up with a range of possible values. Cash flow projections and proforma analyses should be developed to establish the company's intrinsic value. The objective of the financial projections would be to synchronize the market forecasts with the investment plan to present combined financial projections. The generated projections will measure the revenue and operating costs, the profit levels, the liquidity levels, the capital costs for financing investment plans, and other accounting ratios. Ramsey looked at the balance sheet as well as at some financial ratios produced by the accounting department in the last four years (see Exhibits 1 and 2). He also reviewed the assumptions developed by the team for the calculations of capital expenditures requirements (Exhibit 3) and for three potential scenarios, namely, pessimistic scenario, expected scenario, and optimistic scenario (Exhibit 4). These scenarios are highly useful for the forecasting of the post-tax free cash flows the business is expected to generate and discount them to arrive at a present value of the income stream.

A major obstacle is the absence of a developed capital market in Abu Dhabi. Therefore, any valuation method, such as the enterprise flow of income methods (e.g., P/E ratio method, NPV/ DCF method, or the multiplier method), the assets value approaches (e.g., replacement value method, break-up value method, book value method, or revalued asset method), and the investors' required returns on investment (ROI) would all yield rough variations of estimates for firm value. On the surface, each of these methods seems very different, but on closer inspection, we find that they are interrelated. The DCF method still requires the estimate of a multiple. The asset method still requires us to think how the assets will change over time as well as the associated future cash flows and financing demands. The multiple requires an assessment of comparability to which balance sheet structures and accounting conventions are directly related. In practice, a thorough valuation appraisal requires that the evaluator consider aspects of each approach. Different valuation approaches will clearly result in a range of values rather than a single number, and valuing a company in different ways can sometimes produce wide variations. It may seem naively tempting to simply take an average to arrive at a single figure, but this kind of approach is unlikely to have any merit. If different valuation methods produce wildly different numbers, the first thing to do is ask "why"? The answer may be that some of the methods have used incorrect or unrealistic assumptions and are plainly wrong. Alternatively, each method may be internally consistent, but collectively they may be inconsistent in their assumptions about the company's current situation and potential. It is necessary to consider the results of all methods of valuation in order to appreciate the range of differences and to gain some points for the upper and lower ceiling of potential valuation. The selection of the appropriate method for valuation in the case of privatization is likely to be affected by the critical issues in the case of "Rayya Mineral Water," such as assets valuation, financial and market forecasts, required returns for investors, recent performance and alternative scenario of different values. The proposed methods for incorporating these and other critical issues are the SWOT analysis and the alternative scenarios (optimistic, pessimistic and expected versions) of the financial projections, thus leading to more variation in assessment of the firm's value. A SWOT analysis was also presented by Jamil in the strategic planning department

in collaboration with other group members (Exhibit 5). Finally, Jamil presented some preliminary forecasts of estimated sales and detailed costs and expenditures for the period 2005-2014 (see Exhibit 6).

At the end of the meeting, Ramsey was thinking about how he should approach this task, and whether he would need more information that was not yet available. Before he adjourned the meeting, he concluded, "A week from today, we will have to present our findings to top management. I want us to be able by that time to come up with hard figures for them to reflect on. Let us get done with that!!"

Ramsey (and his team) must prepare for the next Board meeting by addressing the following issues:

1. Discuss the findings of the SWOT analysis in Exhibit 5.
2. What options/methods are available for valuation before privatization? Compare asset-based valuation models (e.g., replacement costs, break-up asset value, book value, and original cost as found in case Exhibit 3) with valuation based on income stream model (e.g., NPV, ROI, multiplier factor, ..). Elaborate on their difficulties and the different courses of action. Discuss the pros and cons of each alternative. Which one(s) of the many approaches to valuating detailed in the literature is more applicable to this company? What would you recommend? (Primer on various valuation methods).
3. Make projections of future balance sheets, profits and losses statements, future cash flows, and future financial ratios. Apply the recommended valuation methods in question (2) to Rayya Mineral Water factory. How are we going to treat the difference in values generated from each alternative method? How to integrate the chosen valuation approaches into the SWOT analysis? (Valuation and forecasting – the recommended valuation method). Hints: The balance sheet data (Exhibit 1), financial ratios for 2004 (Exhibit 2), and the assumptions for capital expenditures and scenario analyses projections (Exhibits 3 and 4) can all be used as start-up figures to predict several balance sheets accounts balances, profits and losses statements, and financial ratios for 2005-2014. Sales and expenditures projections for 2005-2014 (Exhibit 6) are very useful as well in this context.
4. What do you recommend Rayya do about privatization and at what price? Should Ramsey incorporate the need to restructure the company into his analysis, and if so, how would restructuring affect the company value?
5. What could be the management policy to increase shareholder value? What are the main requirements for increasing shareholder value?

Exhibit 1: Al Rayya Mineral Water Bottling Factory Balance Sheet for the Year 2004 .

	2004
Balance Sheet Item	**(Dhs 000's)**
Assets	
Cash	0
Trade Debtors	3,000
Other debtors	400
Inventories	6,000
Fixed Assets	15,000
Total Assets	**24,400**
Liabilities & Owner's Equities	
Trade Creditors	3,000
Other Payables	700
Equity	20,700
Total Liabilities & Owner's Equities	**24,400**

Exhibit 2: Water Factory Financial Ratios Analyses (2001-2004).

Profitability Ratios:	2001	2002	2003	2004
Gross profit to turnover	26.60%	35.10%	41.60%	40.30%
Pre-tax profit to turnover	6.70%	20.00%	27.80%	25.10%
Return on capital employed	2.90%	8.10%	15.60%	16.90%
Return on total equity	2.90%	8.10%	15.60%	16.90%

Other Ratios:	2001	2002	2003	2004
Return on investment	2.90%	8.10%	15.60%	16.90%

Exhibit 3: Assumptions for Capital Expenditures Requirements Calculations.

Estimates for the alternative investment programs are as listed below; these costs have been included in the financial projections in Exhibit 6:

1.Estimated Fixed Assets

What follows is an estimated base-case balance sheet and income statement for Al Rayya –Mineral Water for financial year 2004. From 2004 base, we are going to assume a sales volume of 2,328 units (for 1.5-liter bottle) and 731 units (for 0.5- liter bottles). The expected (or median) selling prices are 10.3 Dhs/unit and 11.21 Dhs/unit, respectively. For the optimistic version, we assume an increase in selling price by 2 %, and for the pessimistic version, a decrease in selling
price by 10 %.

The breakdown of fixed assets (at net value) is as follows:

Year	Value
2004	15,000
2005	9,525
2006	3,925
2007	1,175
2008	1,575
2009	2,075
2010	2,575
2011	3,075
2012	3,575
2013	4,075
2014	4,575

Note: Fixed assets have been revalued in the year 2005 to be closer to actual market value. The same is done for the remaining years thereafter.

2. Estimated (market value) fixed assets break-up valuation (in Dhs 000).

Building	11,200
Plant & Machinery	17,600
Vehicles	2,000
Furniture & Equipment	1,200
Total	32,000

(The original cost of Fixed Assets is 50,000 Dhs. The 32,000 represents a market value; the book value of these assets is 20,000 Dhs, in 2002 and 15,000 as of 31/12/2004)

3. Estimated replacement cost.
The total cost for a completely new plant is estimated at approximately *Dhs* 55,000,000.

4. Case of no expansion: Estimated projected capital Re-investment cost (Excluding any expansion).

Year	Dhs (000)
2004	250
2005	300
2006	350
2007	400
2008	500

5. Case of expansion: Between 2005 and 2014, new capital expenditures would equal approximately 15%-16% of sales:

Year	Dhs (000)
2005	525
2006	300
2007	350
2008	400
2009	500
2010	500
2011	500
2012	500
2013	500
2014	500

6. Estimated projected maintenance costs.

Year	Dhs (000)
2004	200
2005	200
2006	250
2007	250
2008	250

Exhibit 4: Scenario Analysis Assumptions

1. **Optimistic Scenario**

   Sales volumes: no change from 2004
   Prices: 2% p. a. increase throughout the period 2005-2014
   Wages and salaries: 5% p. a. increase years 1 and 2, thereafter no change
   Raw materials: no change in unit cost throughout
   Power: an increase of 19 %/year over 5 years, then 2% /year thereafter. Other costs: no change from 2004.
   Dividends are amounted to 10,465 Dhs / year throughout.

This scenario assumes that the demand for the water products will remain at or above the current levels, thereby enabling Rayya Mineral Water Bottling factory to manufacture at maximum capacity throughout, and that demand would cause prices to steadily increase. With the exception of salaries and power, costs will be contained at the current levels.

2. **Expected (median) Value Scenario**

   Sales volumes: same as optimistic scenario
   Selling prices: no change from 2004
   Wages and salaries: same as optimistic scenario
   Raw materials: same as optimistic scenario
   Power: an increase of 17 %/year over 5 years, then 2% /year thereafter
   Other costs: same as optimistic scenario
   Dividends amount to 8,437 Dhs /year throughout.

This scenario differs from the Optimistic Scenario in only one respect, namely, in the fact that selling prices will not rise, but will remain at present levels. This is justified by virtue of the inevitable competition from other brands.

3. **Pessimistic Scenario**
4.

   Sales volumes: same as optimistic scenario
   Selling prices: decrease by 10% in 2005, thereafter no change Wages and salaries: 10% increase in 2005, thereafter no change Raw materials: 10% increase in 2005, thereafter no change Power: an increase of 25 % in the first year, thereafter 2%/year. Other costs: 10% increase in 2003, thereafter no change. Dividends amount to 6,893 Dhs / year throughout.

This version assumes that competition immediately after privatization will cause an on-time drop in selling prices. It also assumes that all costs will suffer an immediate 10 % increase, while power will double in 4 years. Hence, there is provision for a double impact of lower selling prices and higher costs. It is a reflection of the intrinsic viability of the business that the company can withstand this combined shock, and still emerge as a highly profitable company.

Exhibit 5: SWOT Analysis

Strengths
1. Highly profitable
2. High product quality
3. Positive brand image
4. Competitive price
5. Easy access to raw materials
6. No reliance on government support for preferential market volumes or prices

Weaknesses
1. Factory is capacity-constrained with insufficient bottling to satisfy demand
2. Poor reputation for service
3. Unreliable deliveries
4. No competitive discounts for volume sales

Opportunities

1. Steady market demand
2. Increase in output of the installed capacity
3. The market position of the product and its brand can be strengthened by discount offers to major customers
4. Expanded product line
5. Expanding geographic coverage

Threats

1. New well-established competitors
2. Establishment of a direct competitor across the border with Oman in the same valley using same water sources
3. Potential pollution of the water supplies upstream from the Omani side
4. Increase in prices of basic utilities, in particular electricity through elimination of government subsidies

Exhibit 6: Water factory 10-year (2005-2014) Sales and Expenditures Projections

A. Expected Scenario

	Dhs 000's	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.5 LITRES	Volume	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328
	Average selling price	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
	Price movement								-	-	-
	Total sales	23,985	23,985	23,985	23,985	23,985	23,985	23,985	23,985	23,985	23,985
0.5 LITRES	Volume	731	731	731	731	731	731	731	731	731	731
	Average selling price	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21	11.21
	Price movement								-	-	-
	Total sales	8,195	8,195	8,195	8,195	8,195	8,195	8,195	8,195	8,195	8,195
	Overall sales	32,180	32,180	32,180	32,180	32,180	32,180	32,180	32,180	32,180	32,180
	Sales volume as % of Max cap	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
	Break even points:										
A. Fixed costs	Direct wages & salaries	1,950	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
	Depreciation	4,800	4,700	3,100					-	-	-
	Selling costs	3,932	4,024	3,024	3,024	3,024	3,024	3,024	3,024	3,024	3,024
	Administrative costs	1,394	1,446	1,246	1,246	1,246	1,246	1,246	1,246	1,246	1,246
		12,076	12,218	9,418	6,318	6,318	6,318	6,318	6,318	6,318	6,318
B. Variable cost (P/Unit)	Raw materials	2.756	2.756	2.756	2.756	2.756	2.756	2.756	2.756	2.756	2.756
	Power	1.096	1.283	1.501	1.756	2.054	2.404	2.452	2.501	2.551	2.602
	Maintenance	0.065	0.065	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082
	Other direct costs	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
	Unit Variable Costs	4.277	4.464	4.699	4.954	5.252	5.602	5.65	5.699	5.749	5.8
	Average USP	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52
	Unit Var. margin	6.242	6.056	5.822	5.566	5.268	4.919	4.871	4.822	4.772	4.721
	Break even unit sales	1,935	2,017	1,616	1,135	1,199	1,284	1,297	1,310	1,324	1,338
	Percentage of max capacity	62%	65%	52%	37%	39%	41%	42%	42%	43%	43%
	Assumed max. capacity	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100

B. Pessimistic Scenario

	Dhs 000's	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.5 LITRES	Volume	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328
	Average selling price	9.27	9.27	9.27	9.27	9.27	9.27	9.27	9.27	9.27	9.27
	Price movement	-10%						-	-	-	-
	Total sales	21,587	21,587	21,587	21,587	21,587	21,587	21,587	21,587	21,587	21,587
0.5 LITRES	Volume	731	731	731	731	731	731	731	731	731	731
	Average selling price	10.09	10.09	10.09	10.09	10.09	10.09	10.09	10.09	10.09	10.09
	Price movement	-10%						-	-	-	-
	Total sales	7,376	7,376	7,376	7,376	7,376	7,376	7,376	7,376	7,376	7,376
	Overall sales	28,962	28,962	28,962	28,962	28,962	28,962	28,962	28,962	28,962	28,962
	Sales volume as % of Max cap	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
	Break even points:										
A. Fixed costs	Direct wages & salaries	2,145	2,145	2,145	2,145	2,145	2,145	2,145	2,145	2,145	2,145
	Depreciation	4,800	4,700	3,100				-	-	-	-
	Selling costs	4,130	4,130	3,130	3,130	3,130	3,130	3,130	3,130	3,130	3,130
	Administrative costs	1,443	1,443	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243
		12,518	12,418	9,618	6,518	6,518	6,518	6,518	6,518	6,518	6,518
B. Variable cost (P/Unit)	Raw materials	2.729	2.729	2.729	2.729	2.729	2.729	2.729	2.729	2.729	2.729
	Power	1.054	1.318	1.344	1.371	1.398	1.426	1.455	1.484	1.514	1.544
	Maintenance	0.065	0.065	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082
	Other direct costs	0.396	0.396	0.396	0.396	0.396	0.396	0.396	0.396	0.396	0.396
	Unit Variable Costs	4.244	4.508	4.551	4.578	4.605	4.633	4.662	4.691	4.721	4.751
	AVGE USP	9.468	9.468	9.468	9.468	9.468	9.468	9.468	9.468	9.468	9.468
	Unit Variable margin	5.224	4.96	4.917	4.89	4.863	4.835	4.806	4.777	4.747	4.717
	Break even unit sales	2,396	2,503	1,956	1,333	1,340	1,348	1,356	1,364	1,373	1,381
	Percentage of max capacity	77%	81%	63%	43%	43%	43%	44%	44%	44%	45%
	Assumed max. capacity	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100

C. Optimistic Scenario

	Dhs 000's	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.5 LITRES	Volume	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328
	Average selling price	10.51	10.72	10.93	11.15	11.38	11.6	11.83	12.07	12.31	12.56
	Price movement	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
	Total sales	24,465	24,954	25,453	25,962	26,481	27,011	27,551	28,102	28,664	29,238
0.5 LITRES	Volume	731	731	731	731	731	731	731	731	731	731
	Average selling price	11.43	11.66	11.9	12.13	12.38	12.63	12.88	13.14	13.4	13.67
	Price movement	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
	Total sales	8,359	8,526	8,697	8,871	9,048	9,229	9,413	9,602	9,794	9,990
	Overall sales	32,824	33,480	34,150	34,833	35,529	36,240	36,965	37,704	38,458	39,227
	Sales volume as % of Max cap	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
	Break even points:										
A. Fixed costs	Direct wages & salaries	1,950	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
	Depreciation	4,800	4,700	3,100	-	-	-	-	-	-	-
	Selling costs	3,932	4,024	3,024	3,024	3,024	3,024	3,024	3,024	3,024	3,024
	Administrative costs	1,394	1,446	1,246	1,246	1,246	1,246	1,246	1,246	1,246	1,246
		12,076	12,218	9,418	6,318	6,318	6,318	6,318	6,318	6,318	6,318
B. Variable cost (P/Unit)	Raw materials	2.811	2.868	2.925	2.983	3.043	3.104	3.166	3.229	3.294	3.36
	Power	1.118	1.334	1.593	1.901	2.268	2.707	2.761	2.816	2.873	2.93
	Maintenance	0.065	0.065	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082
	Other direct costs	0.36	0.367	0.374	0.382	0.389	0.397	0.405	0.413	0.421	0.43
	Unit Variable Costs	4.354	4.634	4.974	5.348	5.782	6.29	6.414	6.54	6.67	6.802
	Average USP	10.73	10.945	11.164	11.387	11.615	11.847	12.084	12.326	12.572	12.824
	Unit Variable margin	6.376	6.311	6.19	6.039	5.833	5.557	5.67	5.786	5.902	6.022
	Break even unit sales	1,894	1,936	1,521	1,046	1,083	1,137	1,114	1,092	1,070	1,049
	Percentage of max capacity	61%	62%	49%	34%	35%	37%	36%	35%	35%	34%
	Assumed max. capacity	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100

Volume:

The figures given in Exhibit 6 represent the number of actual boxes produced and sold/year every box would include 12 bottles ; and for all scenarios (as per exhibit 4 in the case) , there was no change in sales volume from 2004 (2,328 000 boxes of 1.5 l and 731,000 boxes of 0.5l)
Average selling price : For expected scenario , the selling price was 10.3 Dhs / box of 1.5 l and 11.21 Dhs /box
Overall sales = 2,328 x 10.3 + 731 x 11.21 = 32,180

Sales volume as % of Max cap :
Wages and salaries : (refer to exhibit 4) = 1,950 x 1.05 = 2,048 (For expected scenario…etc
Selling costs : refer to Exhibit 6 - Selling costs details Administrative costs : refer to Exhibit 6 - Admin costs details Raw material / unit : refer to exhibit 4
Power/unit : refer to exhibit 4
Maintenance : see exhibit 3 item 6 = [200 / (2,328 + 731)]= 0.065 in expected scenario

Other direct costs :
Unit Variable costs (or var. cost/unit) = Raw materials / unit + Power / unit + Maintenance/unit + other direct cost/unit
AVG USP = Overall sales / 2,328 + 731 = 10.52 $ / box
Unit var. margin = AVG USP - Unit variable cost
Breakeven unit sales = Fixed costs / Unit var. margin = 1,935 in expected scenario
Percentage of max capacity = 1,935 / 3,100 = Breakeven / Max capacity

---

Notes:
It must be noted here that the ROI method is the one mainly used in Abu Dhabi.

All financial statements prior to year 2004 were not audited and therefore have not been released by the administration.

GREEN SHOE ESTATES

Armand Gilinsky, Jr., Sonoma State University
Raymond H. Lopez, Pace University[1]

"We have been financial partners for almost ten years and I believe our relationship has been quite successful for all of us. You have continued to define the styles and tastes of Green Shoe's red and white table wines, just as you have been doing for the last 19 years. While the rapid growth rate of 20 percent per year in the late 1990's has been reduced to an average of 10 percent per year since 2000 the firm has successfully navigated the product and financial markets for the benefit of its owners, employees and customers. I am now prepared to expand my financial commitment to Green Shoe operations. My offer is $10 million for 100,000 Class A shares and 200,000 Class B shares. This will result in my ownership stake rising to 50 percent!"

Ten million dollars for a near-majority stake in Green Shoe Estates (Green Shoe) was the essence of a February, 2009 proposal made by Mr. Arthur Malone and his investor group to Sally and Nancy Stone, owners of 80 percent of this Napa, California winery. Since his initial investment of $2 million in 2000 for 20 percent of the firm he had made two other offers for a larger ownership position, but had been turned down by the sisters. However, with a number of new challenges facing the winery in early 2009, as well as financial needs of the sisters' households, this could be an opportunity to significantly diversify their personal financial portfolios and prepare for retirement. Sally's family expected two weddings in the next year while, due to the prolonged economic recession, Nancy's husband had been out of work for seven months, with weak job prospects. They also faced the expenses of a wedding in September 2009.

Over the prior five years, winery expansion had been financed using internally generated cash flows plus borrowings. Green Shoe utilized a large, three-year revolving credit agreement, plus a mortgage on its barrel-aging facility, expanded wine shop and purchased land. It was time to renew the revolver with Wells Fargo Bank. Wells Fargo expected personal guarantees from the two families to secure any new loans. However, the sisters were not prepared for the response they would receive from Wells Fargo, with respect to terms, conditions and availability of the funds they required! Major decisions needed to be made by March of 2009, giving the sisters barely a month for data evaluation and analysis.

[1] The authors gratefully acknowledge Drs. William Welty and Rita Silverman for their direction and support in sparking our interest in case research and case writing. We also acknowledge the significant contributions of Myrtle Moniz and Amy DeJean for their editorial and document preparation activities.

RECENT ECONOMIC ENVIRONMENT

The economic environment in the United States over the most recent two years had changed dramatically. The so-called "Great Recession" began in December 2007 and had a significant impact on every sector of the economy. With the bursting of the "housing bubble" a major asset of many households turned down for the first time in decades. Many consumers had been using a growing equity value of their homes as a supplemental source of income. When this income stream dried up, so did consumer spending. Construction activity leveled off and then declined. Unemployment increased from 4.4 percent to over 8 percent by year-end 2008. Industrial production declined by more than 12 percent in the same period. Consumer spending, which had been "trading up" for years as their income increased, was now "trading down." The impact was felt in all sectors of the economy, with the wine industry feeling these trends for the first time in the memory of everyone associated with Green Shoe's operations.[1]

COMPANY HISTORY

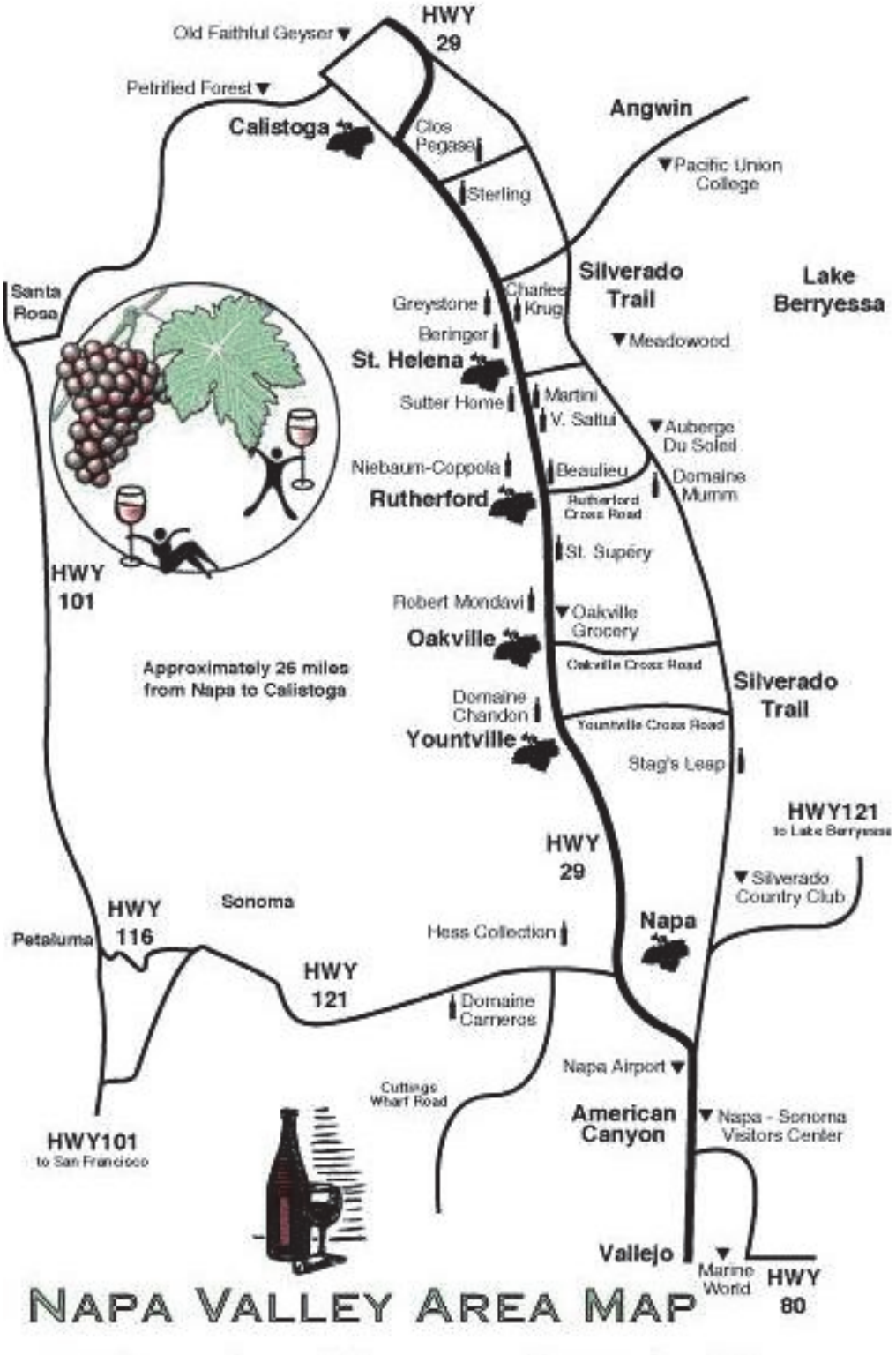
Rocky Ridge Vineyards was founded in 1948 and sold to the Stone family in 1953. Sally and Nancy's parents had acquired the winery and vineyards for $850,000 and moved westwards from the New York metropolitan area. Their father had been a successful investment banker for more than 26 years, specializing in the sale of Initial Public Offerings (IPO's) for a prestigious investment bank. In structuring IPOs, he negotiated a number of Green Shoe amendments to his firm's contract agreements with the private firms to be taken public; hence his decision to rename the winery "Green Shoe Estates."

The elder Stones ran the winery operations with little growth or expansion in mind – it was more of a hobby and labor of love after more than a quarter century on Wall Street. They settled into their new home, on 45 acres of prime land on the Rutherford Bench. The Rutherford Bench was a stretch of Napa Valley, about three miles long, ranging north from Oakville along the west side of Route 29 to Rutherford. See **Figure 1** for a map of Napa Valley highlighting the location of the Rutherford Bench. Among the wineries to be found in that rather small tract of real estate were Beaulieu, Niebaum-Coppola, Grgich-Hills, Far Niente and Vichon; vineyard properties included the renowned Martha's Vineyard and Bella Oaks Vineyard, whose grapes were used by Heitz Cellars, the Bosche Vineyard, which supplied Freemark Abbey, and parcels owned by the Robert Mondavi, Pine Ridge, and Joseph Phelps wineries. Like the owners of these and other wineries in this particular location in Napa Valley, the Stone family succeeded in producing increasing quantities of highly acclaimed Cabernet Sauvignon red table wines, primarily for local markets in Northern California.

In order to minimize estate taxes, the elder Stones decided to slowly sell partial ownership in the company to their daughters, Sally and Nancy. By the time their parents' estates went through probate in 1991, the sisters owned over 90 percent of the common stock of Green Shoe.

Both sisters graduated from the University of California at Davis. Sally majored in chemistry, graduating *cum laude* in 1987, and then completed her MBA at Stanford. Nancy majored in marketing, receiving her B.S in Business Administration in 1989. Both were married with children in high school and college. Their husbands' careers were in education and engineering, respectively. Both families lived in separate homes situated on the original land purchased by their father.

Figure 1: Map of Napa Valley Area



Source: Napa Valley Online, http://napavalleyonline.com/directory/valleymap.jpg, accessed October 21, 2011

Business Development – The 1990's

When the Stone sisters assumed control and management of winemaking operations in 1991, they faced some significant challenges. Although their parents had truly loved their wine- making business, they had not been keeping up with many important aspects of its operations. While wine quality remained high, control of grape supply was slipping, along with grape yields in their owned vineyards. For example, in 1980, an average of 4½ tons of grapes per acre were being harvested, while in 1989, the comparable figure was just below 3 tons. Total grape and wine production rose in that decade only because additional acreage was purchased and developed, although only a subtotal of owned acreage was considered to be "in production" at any time, due to the need for periodic replacement of plantings and the subsequent maturation of rootstock into grapevines. The net effects were reduced margins and a business that was on the verge of losing money on an annual basis.

The turnaround decision. Also in 1991, a major decision had to be addressed, and quickly. If the sisters decided against continuing the business, it would then have to be sold — and its value was declining because operating expenses had risen more rapidly than revenues. If they decided to keep the business, a major commitment of talent, energy and personal funding would be required, perhaps even more quickly! The Stone sisters had grown up in Napa Valley. Many of their friends and associates were also involved in wine businesses. The sisters were aware of the declining competitiveness of their parents' winery, and they were quite confident it could eventually become a model of modern, progressive wine production, marketing and distribution. As the valuation of the winery in 1991 was depressed by a brief recession at that time, selling out immediately would not generate substantial capital gains for both families. Turning the business around and enhancing its position in the industry, however, could benefit both families.

They were also aware of the risks they would be accepting if they assumed management and ownership of Green Shoe. Wine making and grape growing were subject to a variety of agricultural risks. Various diseases and pests as well as extreme weather conditions could materially and adversely affect the quality and quantity of grapes available to the winery to blend and age into premium wines. See "*Glossary of Common Wine Industry Terminology*" at the end of this case.

Competition in the premium table wine segment of the beverage industry in the early 1990s was significant and growing, not only from the entry of new domestic producers, but also from increasing product imports from "New World" wine producing countries, such as Argentina, Australia, Chile, New Zealand, and South Africa. Product demand was seasonal, typically enhanced by holiday purchases and by price reductions.

In the early 1990's, approximately 70 percent of Green Shoe's sales went to commercial "on-premises" accounts, i.e., direct to hotels, restaurants, resorts, catering facilities, etc. The remaining 30 percent was sold into the wholesale distribution channel for resale at "off-premises" accounts, such as supermarkets and specialty wine shops. In order to expand production significantly, wholesalers would be the most efficient way to distribute product both locally and nationally. However, the buying power of wholesalers/distributors could adversely affect profit margins as sales and market share continued to grow, due to the need for promotions or volume discounts.

In the end, the Stone sisters decided to take up the challenge: develop the Green Shoe brand and attempt to strengthen its competitive position in a crowded market for wines. Their decision to forge ahead with expansion was greeted with enthusiasm by all concerned, including their winemaker, field hands, administrative personnel, and families.

Phased expansion and quality control. Over the next few years, major improvements were made to the vineyards and the winery. As land prices in Napa were depressed in the early 1990s, it was possible to purchase fifty acres of vineyards, bringing total acreage under production to 87 by 1993. Not all owned acreage was "in production" at any given time, due to the re-planting cycle, however. An additional 165 acres — owned by other growers — came under long-term lease agreements, with control over planting, maintenance, and harvesting in the hands of Green Shoe staff. The results were significant: grape yield per acre and output increased, requiring a substantial expansion of crushing and processing capacity at the winery. By 1994, almost $2 million had been invested in these aspects of operations, financed using a combination of mortgages and internally generated funds.

Sally and Nancy knew from their education at UC Davis that the quality of wine began with the quality of the grapes, so a great deal of their time and effort was directed towards maintenance of the vineyards. The production cycle began each year in December, after completion of the harvest (normally in September-October). The vines were dormant at this time, so pruning and shaping could take place. Through the dormant winter months up to March, these activities were critical to properly positioning fruitful buds onto the trellis system to facilitate the opportunity for balanced production on each vine. During the winter months, new vineyards were also prepared for planting, via deep-ripping of the soil, pre-plant cultivation, and installation of irrigation and trellis systems.

After winter rains ceased, irrigation and cultivation of the vineyards began and continued through the harvest season. Applications of herbicides, pesticides and fertilizers commenced in the spring and continued through the harvest. Grafting and planting also generally took place during the first four or five months of the year. As vine growth accelerated in late spring, vines were trained and tied, and excess leaves removed (a process known as "suckering") to increase sun exposure to the fruit. In mid-summer, softening of the fruit took place and rapid sugar accumulation occurred. Vine canopies were managed during the summer months to optimize sun penetration onto the fruit. Leading into the harvest, the maturity and sugar levels of the grapes were carefully monitored. When sugar content of the grapes reached desired levels, the harvest began. Grapes were picked entirely by hand and transported to the winery, where they were dumped into the winery crushers.

Within the winery, new stainless steel holding tanks were purchased and installed, with temperature control jackets. Barrel aging and warehouse space were acquired and expanded in 1994, just down the road from the winery. Once this new storage and aging capacity was in place, capital expenditures for new oak barrels (at $625 each) was timed to coincide with product demand and growing production. These production

capacity modernization and increased storage capacity initiatives were anticipated to contribute to enhanced operating efficiencies and expanding profit and cash flow margins. In the interim, the owners outsourced the bottling of their wines. Longer-term, an in-house capability for a bottling line was on the drawing boards and was planned to come on line by 2003, but its planned installation was expected to have zero impact on revenue or marketing expectations. Total costs of the ten-year winery project expansion plan were at that time estimated at $2.6 million.

In 1996, a wine tasting room, small retail shop and expanded parking lot were built along the Silverado Trail at a cost of $265,000 and within sight of travelers and tourists driving through the valley. To the sisters' amazement, people seemed to stream into the facility almost from the day it first opened. Summer weekends were especially busy, with all employees working in a number of areas. Sales from the tasting room and retail shop amounted to only three percent of revenue in 1999, Direct to consumer sales from the winery resulted in higher profit margins (due to the recapture of the 50 percent markdowns normally given to distributors and wholesalers). Another major benefit of direct sales was "free" word-of-mouth marketing of its wines.

Product line expansion – new varietal wines. During the 1990s the Stone sisters also expanded their portfolio of table wines beyond Cabernet Sauvignon (red) varietal wines. Grapes used to produce table wines were of varying quality, but varietal grapes were delicate, thin-skinned grapes whose vines usually took approximately four years to begin bearing fruit. As defined by the U.S. Alcohol, Tobacco Tax and Trade Bureau truth-in-labeling standards, one variety — the name of a single grape, such as Cabernet Sauvignon — could be used if not less than 75 percent of the wine was derived from grapes of that variety, the entire 75 percent of which was grown in the labeled appellation of origin. Appellation denoted that "at least 75 percent wine's volume was derived from fruit or agricultural products and grown in place or region indicated." [*Title 27, Part 4*, of the Code of Federal Regulations, The U.S. Alcohol and Tobacco Tax and Trade Bureau]. Developing the typical varietal characteristics that resulted in enhanced flavor, taste and finish could take another two to three years beyond the four years that newly planted rootstock (which produced vines) needed to bear fruit. Extended growing periods of up to seven years tended to increase investment levels and operating expenses in return for enhanced grape quality.

The Stone sisters decided to plant grapes and add to the product line two additional red varietal wines, a Merlot and a Pinot Noir, as well as wines made from the white varietal Sauvignon Blanc and Chardonnay grapes. Via careful management of capacity, the owners relied on sales from early releases of the Sauvignon Blanc wines, which required as little as six months' aging time, to generate cash flows. White varietal wines such as Sauvignon Blanc and Chardonnay typically spent less time in the barrels for aging than red varietals, White varietal wines could then be sold, often before the next harvest of grapes, in order to generate near-term cash flows. By contrast, red varietal wines required longer barrel aging, normally about eighteen months for the

Pinot Noir varetals, and up to two years or more for the Cabernet Sauvignon and Merlot varietals, respectively. Consequently, red wine inventories grew more rapidly than white wine inventories. Since red wines also required more space and additional financing over their longer aging cycle, Green Shoe's red wines were offered at higher price points than Chardonnay and Sauvignon Blanc brands, and the red wines typically generated higher profit margins.

Business Development Since 2000

Demand for Green Shoe's wines peaked with the new millennium celebrations in2 1999–2000, creating new capacity and production challenges for Sally and Nancy. Undaunted, the sisters met these challenges head-on. The expansion and enhanced quality plans that had been on the drawing boards in the late 1990s were implemented: the in-house bottling facility was completed in 2004 ($760,000), and a centralized, climate-controlled barrel-aging facility was finished in 2006 ($2.1 million). The sisters purchased an additional forty-two acres of vineyards in 2002 for $2.9 million, bringing total owned acreage under production to 129. Leased acreage, still under control of Green Shoe's employees, grew from 165 to 312 acres by 2007. Several other initiatives in the first decade of the 2000s impacted costs and sales, including the "greening" of operations to reduce costs, and the creation of direct sales channels via the Internet, and a newly formed Wine Club to enhance revenues. These developments were in part financed by the sisters' decision to sell a partial equity stake to a retired banker who had moved to Napa Valley, a Mr. Arthur Malone. Arthur was General Partner of a small group of qualified investors that had formed a limited partnership to purchase small equity stakes in emerging premium Napa wineries.

Sale of an equity stake. In the year 2000, the sisters sold a 20 percent interest in Green Shoe to Arthur's group. The transaction resulted in a doubling of the firm's equity base and reduced borrowing needs for the next two years. Arthur's group received Class B shares, which had one vote, while the sisters continued to hold Class A shares (founders' stock) with 10 votes each. At Arthur's suggestion, the owners hired a full-time marketing manager, Lou Hanson, a limited partner in Arthur's investor group. Lou worked with Nancy to develop the winery's website, negotiate with new regional distributors, create and manage the Wine Club, and coordinate events that promoted Green Shoe's products. As Lou learned about the business, he also came to be involved in helping to manage production and providing assistance on inventory management and financing.

Sustainable operations. Over the first decade of the 2000's, Sally and Nancy steadily transformed their operations to follow the "green movement" in both the growing of their grapes as well as in the production of their wines. "Sustainable" winemaking became a theme of their business and their

marketing. Their insulated temperature – controlled fermentation tanks were the first movement in this direction. Subsequently they moved to high efficiency lighting in all their buildings. They chose a gravity flow design for the movement of grapes within the winery. All compressors and well pumps had variable frequency drives. Wastewater was recycled whenever possible. A drip irrigation system was put into place in all owned vineyards as well as those of the contract growers. These systems reduced irrigation requirements by 15 percent over the first three years up to the end of 2008. Solar panels installed on the roofs of all buildings contributed to a reduction in energy purchases. Power usage per bottle produced alone dropped by an estimated 20 percent by the end of 2008. Typical of most Napa wineries' investments in sustainable production practices, there were no immediate impacts on costs, as these water use reduction and energy conservation projects were not expected to reach break-even for at least seven years, or until 2015 at the earliest.

Direct sales. Green Shoe established multiple channels of distribution to make its growing brand offerings available to consumers. Green Shoe's website, first rolled out in late 1999, began to contribute to revenue growth of direct sales of wines to consumers in those states that permitted direct shipping. In 2009, four states accounted for 54% of all wine shipped directly to the consumer – California, Texas, New York, and Florida. Sales through this direct distribution channel had expanded at a 22 percent average annual rate over seven years, reaching $1.9 million in 2008. Green Shoe's Wine Club, established in 2003, contributed more modestly to revenue growth, as gross sales via this channel reached $780,000 by year-end 2008. The Wine Club enabled wine consumers to sign up for preferred product offerings on a quarterly basis. Club members were offered a total of three bottles, at least one red and one white, at a discount of 20 percent off retail list price. Shipments were made directly to a customer's place of residence, where permitted by law. Members could also decline any shipment by simply contacting the winery with their decision.

U.S. BEVERAGE CONSUMPTION TRENDS

Exhibit 1 presents consumption data for the largest beverage categories in the U.S. from 2003 to 2008, by volume sold. In terms of gallons consumed by beverage category, soft drinks commanded the top position, even though soft drinks consumption declined by about –1.6 percent per year over the six-year period. Consumption of wine, by contrast to the entire beverage category, was tiny, at only 701 million gallons in 2008 vs. 14.1 billion gallons for soft drinks in that same year. However, wine consumption grew steadily over the period and exhibited the third highest compound average annual growth rate of any beverage category, at 2.7 percent over the six-year period. Only distilled spirits, at 3.1 percent, and bottled water, at 6.4 percent, grew faster on a compound annual basis.

Exhibit 2 presents data showing dollar values of beverage retail sales over the corresponding six-year period. Due to higher average prices at retail relative to most beverage categories, wine occupied the fourth highest category. In terms of growth rate wine was also in fourth place, expanding at 4.4 percent per year. Over the 2003-2008 period, distilled spirits commanded the highest dollar retail sales growth rate at 6.7 percent, followed by bottled water at 5.7 percent, and beer at 4.9 percent.

Wine Consumption

The internal structure of the U.S. wine industry underwent fundamental changes from 1993-2009. While total wine consumption increased every year since 1993 (**Exhibit 3**), table wine was by far the largest market segment, representing 91.6 percent of industry totals in 2008, up from the 80 percent range in the late 1990s. Table wines, in turn, responded to changes in the tastes and preferences of consumers for higher quality, premium wines.

"Table" wines were those with 7 to 14 percent alcohol content by volume and were traditionally consumed at meals. This was in contrast to other wine products, such as sparkling wines (champagnes), wine coolers, "pop" wines and fortified wines, which were typically consumed as stand-alone beverages. Table wines that retailed for less than $3.00 per 750ml bottle were deemed to be in the generic, economy, or "jug" wine category, while those selling for more than $3.00 per bottle were considered to be in the premium wine category.

Consumption trends. Total wine consumption in the U.S. from 1991-2008 (**Exhibit 4**), reached an all-time high of 753 million gallons in 2008. Since 2002, when the old record of 587 million gallons of 1986 was finally eclipsed, total domestic wine consumption recorded a record high each year. Per capita (household) consumption by 2007 surpassed the 1985 and 1986 levels of 2.43 gallons. The table wine market segment was by the far the largest category, representing an 82 to 84 percent share of the market in the 1980s, and 83 to 87 percent share in the 1990s. In more recent years table wines' market share leveled off in the 87 to 89 percent range. U.S. wine sales trends over the last decade show that table wine had become the category of choice by the consuming public. By contrast, Dessert wines (**Exhibit 5**) experienced declining values in the 1990's, but, since the year 2003, did consistently achieve new record levels year over year basis. The Champagne/Sparkling wine category remained in a range of 25 to 33 million gallons for two decades. Total wine sales by volume grew consistently every year since 1993, and total wine sales by retail value also increased every year since 1993, except for 2008, due to a confluence of factors that are described below.

Increasing Segmentation

Within this category were two components, domestic table wines and imported table wines. The domestic table market segment represented 81.0 percent of total table wine consumption and 74.4 percent of total wine consumption. In terms of market share over time, the imported table wine category exhibited the most rapid growth over the last two decades. In 1991 domestic table wine made up 60.5 percent of total wine consumption and 85.5 percent of total table wine consumption. Imported table wine made up 10.3 percent of total wine consumption in 1991, rising to 23.5 percent in 2008. In the table wine segment, imports were 14.5 percent in 1991, growing to 25.6 percent in 2008.

Price segments. Most bottled wines in the premium category showed a vintage date on their labels. This meant that the product was made with at least 95 percent of grapes harvested, crushed and fermented in the calendar year shown on the label and used grapes from an appellation of origin (i.e. Napa Valley, Sonoma Valley, Central Coast,

Willamette Valley, etc.). Within the premium wine category itself, several market segments emerged, based on retail price points, normally double the wholesale value of the bottle or case of wine. According to a respected industry publication, *Impact Databank, Review & Forecast of the Wine Industry*, "Sub-Premium" wines retailed for $3.00 to $6.00 per bottle, while the "Premium" category sold for $7.00 to $9.99 per bottle. The "Super-Premium" category retailed for $10.00 to $13.99 per bottle, while wines commanding a retail price above $14.00 per bottle were in the "Deluxe" segment. A Napa Valley wine consulting firm, Motto Kryla Fisher, in their "Wine Trend" publication, further refined the "Deluxe" segment into sub-segments: "Ultra Premium" wines, priced from $14.00 to $29.99, and "Luxury" wines that retailed in excess of $30.00 per bottle.

Consumer segments. By the end of the first decade of the 2000s, the age group comprising 25-54 year-olds constituted the largest component of U.S. "Core" wine drinkers. In the last two decades of the previous century, the U.S. wine industry had almost entirely relied on the Baby-Boom generation (born between 1946-1964, and by 2009 reaching the 45-63 year-old age group) to stimulate demand growth in the short term, and began turning its attention to the longer-term challenge of converting Generation X (those born between 1964-1975) and Millennial consumers (those born between 1976-1990) from "Marginal" to "Core" wine drinkers. Another challenge facing domestic wine producers came from overseas producers. Imported wines had gradually been eroding U.S. producers' domestic market share for more than two decades. Consumer demand for imported wines was expected to grow more rapidly than demand for the domestic segment until the middle of the second decade of the 2000s.

Wine sales by color. Another important metric in analyzing the U.S. wine industry is the changing mix of wine shipments by color (**Exhibit 6**). Since 1980 white wine has been the largest market segment, representing more than one-half of shipments in most years, through 1990. Rosé/blush wine grew rapidly in 1970's and 1980's, reaching a peak in 1990, as the "wine-cooler craze" began to subside. Coincidentally, in 1990, red wines sales hit a long-term low in shipments and consumption. Since the early 1990's the red wine category grew steadily, helped by periodic scientific studies concluding that consumption of red wine, in moderation, was purported to make a positive contribution to good health. While rosé/blush shipments declined slowly over the two decades, both red and white wine shipments grew steadily. A watershed event was seen in 2007 as the red wine category took over first place in terms of annual shipments. The red wine category included wines that were generally more expensive to produce, due to extended aging requirements. Therefore, they generally sold for higher prices at both wholesale and retails levels. As a result, revenues from red wine sales direct from wineries as well as from distributors and retailers grew faster and were substantially higher than those of either the white or rosé/ blush market segments.

Inroads by imports. With respect to the import sector of the wine industry, table wine represented 86.0 percent of total gallons in 2008 (**Exhibit 7**). Since 2000, this segment almost doubled in size while all imports expanded approximately 74 percent. Champagne and sparkling wines grew in shipments and prices, but the dessert and fortified category remained the fastest growing import category, reaching almost five times its 2000 level by 2008. **Exhibit 8** presents wine imports over the last five years by type and country of origin. Italy and Australia led the industry in total imports as well as

the table wine market segment. Australia also led in the dessert and fortified category, while France was number one in champagne and sparkling wines.

THE U.S. WINE INDUSTRY

The number of firms producing wine in the U.S. increased dramatically over the forty years leading up to 2009. From a few hundred companies in the 1960's and 1970's, the number had grown steadily by 2009 to over 6,000 wine producers, of which number about 60 percent were California wine producers. Most were relatively small firms, located primarily in California, although every state in the U.S. (even Alaska and Hawaii) and the District of Columbia had at least one winery. In recent years the twenty largest firms produced over 90 percent of all American wines by volume and approximately 85 percent by value at wholesale.

Wine Industry Competition

The competitive structure of the domestic wine industry was defined by two distinct company groups; private stand-alone wineries and public, multi-industry firms. The privately held firms were of a broad variety of sizes, mostly small, with the exception of industry giant E&J Gallo (based in Modesto, California, but engaged in premium wine production and branding in both Sonoma and Napa), along with Kendall Jackson (Sonoma) and The Wine Group (headquartered in San Francisco). The second group of competitors was composed of large, public, multi industry firms, of which the best-known were Allied Domecq (which had spun off most of its premium wine brands to Beam Wine Estates and the Ascentia Group), Brown Forman (Wine Estates Division, including Sonoma-Cutrer, Fetzer, and Bonterra), Foster's Group (Beringer Blass), Constellation Brands (including Robert Mondavi), Diageo (Chateau and Estates Division, including Sterling, Beaulieu Vineyards, and Chalone), Louis Vuitton Moet Hennessey (LVMH), and U.S.T. (sold recently to Altria).

Consolidation trends in the wine industry accelerated since the early 1990s, as beverage conglomerates and larger producers alike began purchasing smaller firms. These moves were envisioned to exploit opportunities for economies of scale in marketing, and economies of scope in gaining access to more varied brands and channels of distribution. These larger winery operations could then enhance their effectiveness in negotiating favorable selling terms with the declining number of large, regional distributors. As sales of wine direct to consumers grew in response to reduced regulations on alcoholic beverage distribution, larger firms could also negotiate more favorable terms with regional and national transportation companies. The consolidating firms were for the most part publicly owned and could offer smaller, family-owned or closely held businesses, an option to achieve greater liquidity of their investment and reduced risks of holding shares in larger, more diversified firms.

By early 2009, however, due to disappointing earnings and inability to achieve the envisioned scale and scope economies, just about every large beverage conglomerate was actively seeking to divest or spin off the winery assets acquired during the 1990s and early 2000s. Yet at the same time the attractiveness of wine production across the U.S.

resulted in a growing number of entrepreneurs' purchasing winery assets from small producers, or starting new, small operations.

In addition to domestic and conglomerate-owned wine brands, a growing percent of market share had been captured by imports. These imports originated from two groups of countries, identified as "Old World" and "New World". The "Old World" group included wines from France, Italy, Germany, Spain and Portugal. While their volumes varied over the years, total imports from these nations had not fluctuated much over the last two decades. Growth in imports had been driven to a great extent by lower-priced brands from the "New World" countries, Australia, Chile, and Argentina. Not only had these New World brands' share of total imports increased, but their share of U.S. consumption also increased steadily and significantly. Table wine imported volume more than tripled over the last two decades while domestic table wine consumption had not quite doubled.

Distribution Channels

A myriad of state laws and regulations restricting the sale of alcoholic beverages generally required wineries to use a "three-tier" distribution system (winery to distributor to retailer to consumer). However, from the early 1990s to 2008, an increasing number of wine distributors had exited through termination or acquisition. In 1990, there were 10,940 U.S. wine distributors of wine, but by 2008 that number had decreased to 3,388, accounting for about $12 billion in revenues, according to the Gale Group's *2009 Industry Survey of Wine and Distilled Alcoholic Beverages*. In 1993, the top 10 distributors accounted for 33 percent of wine sales while, by 2003 the comparable figure was 60 percent. Thus, disseminating product information through distributors had become less effective, especially for smaller wineries, since a wholesaler or distributor that once represented a few wineries now in many cases represented hundreds. Individual wineries were, as a result of distributor consolidation, increasingly forced to take on the burden of developing their own sales and marketing programs.

Consolidating distribution channels tended to increase barriers to new market entry for smaller wineries such as Green Shoe. Only since its expansion in 2004 had the firm been able to avail itself of an efficient distributor relationship. Previously they had lower volume, inadequate product mix across price and varietal segments and relatively unknown brands. That restricted them to local markets and local "on-premises" (restaurants, hotels and caterers) and "off-premises" (supermarket and specialty wine retailer) accounts.

From 2005 to 2009 wine volume and product mix increased. Direct sales also developed, as the firm expanded its tasting room, mail order wine club programs and Web site. The main advantage of these direct sales initiatives was higher profit margins on these incremental sales. The company realized higher revenues by selling wines to consumers at almost full retail prices. Another advantage of the direct channel was the winery's ability to provide product information to consumers and receive valuable information about their buying habits in return. Disadvantages of direct channel sales included the cost, time and increased attention associated with building and then managing those channels. While smaller wineries generated less than 25 percent of

revenues through the direct channel, Green Shoe had, by 2008, reached the 30 percent level and projected a slowly declining percent over the next three years.

DECISION TIME – ONCE AGAIN

Sally returned to her office at Green Shoe after a 10 a.m. meeting with her banking representative and loan officer at Wells Fargo Bank. At that meeting she presented a three-year plan for the firm, along with the refinancing package for the revolving credit agreement. The first surprise Sally received was that, based on the increased size of her revolving credit request from to $4.3 million, her proposal was being re-directed to a different division of the bank. That meant new relationships had to be developed with a new loan officer. After brief introductions, the new loan officer outlined new parameters for a three-year revolving credit agreement; up to 70 percent of accounts receivable (down from 80 percent), 60 percent of bottled inventory (down from 70 percent) and 40 percent of bulk wine inventory (down from 50 percent). The new interest rate on funds used would be 9 percent, up from the current 7 percent cost of funds. Finally, personal guarantees would be required from both sisters and their husbands.

Sally was certain that she would have to share this information with Nancy, Arthur, and Lou (who had by 2009 become Green Shoe's executive vice president of marketing and operations). Sally inwardly remarked, "I might have to revisit Arthur's proposal and take it more seriously than I first anticipated." The group had plans to meet in three days' time to finalize the details of their new three-to-five year strategic plan.

Sally hoped that a number of important decisions would come out of that forthcoming meeting. To prepare for that meeting, Sally had called The Wine Institute, of which Green Shoe was a member, and requested a report from their San Francisco headquarters that covered recent industry trends in production, consumption, and pricing of wines. From her financial advisor she had received and reviewed another report covering the performance of the U.S. economy in recent years, with prospects through 2010.

Meanwhile, Nancy was busy preparing to present her vision for Green Shoe's products and competitive strategies for the next few years. Lou was preparing his forecasts for capacity utilization, market strategies, and increasing overall managerial effectiveness. After sharing this information with Arthur, to keep all owners "in the loop," a final decision involving both company direction and financing would need to be made.

The Meeting

Sally opened the meeting with a summary of the highlights of the last decade at Green Shoe. After the peak year of 2000, revenues declined for the next two years, as competition intensified from both domestic and foreign producers. The firm was back on a somewhat slower (10 percent) growth path, even after strengthening and refocusing its marketing plans, expanding geographic distribution and sales, and targeting a higher price level for most of its brands. Supported by Green Shoe's wine club operations and

growth of direct-to-consumer sales through the firm's website, profitability and cash flow margins grew through 2008 (**Exhibits 9–12**). Their balance sheet, she reported, had "strengthened considerably as short-term loans declined, long-term debt remained fairly steady, while our net worth almost doubled."

Sally's Position

In order to maintain the financial integrity of the firm and also the value of the firm's brands, Sally argued that,

> Prices have to be at least maintained, even though quantity demanded was declining over the last few months. American consumers, after years of 'trading up' in most product categories, from automobiles to homes, to TV sets and to wines, have suddenly changed their buying patterns. They are now 'trading down" and we at Green Shoe are feeling those effects first hand.

Sally continued,

> Our sales to on-premises accounts, hotels, restaurants, caterers, etc. are all slowing down, as is demand from distributors to those accounts. They have all reported to me that they are not only seeing declines in sales, they are seeing larger declines in the higher price products. Inventories are building in the distribution channels and, as buyers purchase lower quantities, our inventories are rising.

Sally felt strongly that, based on the reports that she had reviewed from the Wine Institute and her financial advisor, reducing prices for her premium wine brands could have "an adverse effect on demand when the recession ultimately ran its course and the economy was expanding once again." Therefore, she was prepared to explore financing options that would allow the firm to maintain prices, build its inventory and wait for the market to firm.

Nancy's Position

Nancy was next on the agenda for presenting her ideas and strategic plan. Owing to her marketing education and experience she had always been supporting strategies that could increase the firm's market share, or at least maintain its position. She had been observing the intensifying competitive landscape for Green Shoe's wines. She was instrumental in devising strategies to cope with both domestic and import competition. The firm was able to raise prices over the last few years to position its major brands at price points above rival firms, especially from the Yellow Tail brand from Australia. Nancy presented her plan:

> In order to meet the changing structure of the market, at least over the next year or two, I would lower our prices in order to maintain or possibly even increase our market share. Possible brand deterioration after years of investments to increase the quality of our wines should not be too severe. Once the markets

strengthen I am confident that we will be able to move up the price scale and compete effectively.

During this period of market stress we can promote other attributes of our wines, especially the initiatives we have undertaken in the area of sustainability. I know from recently attended conferences and wine events that we are in the forefront of these policies and programs. If we can successfully maintain output and sales, we will not only generate growing cash flows, but we will be able to move our inventory, thus reducing our financing needs.

I would further like to propose that we seriously consider building a bed-and-breakfast facility alongside our tasting room and retail shop. It is expected to take one year to construct and integrate with our other retail initiatives and it would be operational when markets return to more normal growth patterns. Based on my projections, the $2.9 million expenditure for a B-and-B would generate positive cash flows by the second year of operations and contribute to the growing value of all our branded wines. All we need is the money!

Lou's Position

After listening attentively to Sally and Nancy's ideas, Lou presented his strategies for the next few years. "I believe that a combination of both your strategies will optimize our position in the marketplace as well as balance our physical and financial resources." He explained:

Our signature brands have been Cabernet Sauvignon and Chardonnay. These now retail for more than $20 per bottle and have been accepted in the marketplace, as sales have grown strongly over the last five years. Even with the expectation of reduced volume growth or even a decline in volume over the next year or two, it is important to support those brands. Therefore, I propose that we maintain their price levels, continue to promote them and, if necessary, build and hold inventory until markets strengthen.

In order to help finance these growing assets and enhance cash flows I would reposition some of our other brands. For example, by lowering the price of our Merlot, Pinot Noir and Sauvignon Blanc by between 10 and 15 percent we can position them in the segment of the marketplace that is experiencing the strongest growth characteristics. With retail prices targeted to the $9 to $14 range we will be where the consumers seem to be going.

From a production perspective we will utilize grapes from our owned and controlled acreage to maintain the quality standards of our signature brands. By purchasing grapes from other growers we will be able to maintain our flexibility as the markets develop. While quality control and our standards of production will not be compromised, our fixed costs can be spread over a larger level of production. By maintaining production levels, cash flows, especially from our white wines, should contribute to the firm's financing needs and help to support our premium red wine inventories. I have supplied you with detailed projections, expectations and assumptions for each of our brands in my report.

THE FINAL CHALLENGE

After Lou presented his position, Sally and Nancy kept arguing back and forth over their positions as well as about the increasing number of decisions that had to be made, both strategic as well as financial. Three alternative views of the future had now been presented and Arthur's offer had to be addressed, with a decision concerning whether or not to accept his financial proposal, reject it outright, or make a counteroffer for a lower amount of funding. One possibility that Lou raised was for the sisters to counter with a proposed sale of 200,000 non-voting shares at $6 million, still sufficient for Green Shoe's forecasted needs, but entailing a lower equity stake for Arthur and a considerably lower impact on the sisters' ownership and voting control. Abruptly, Lou rose to excuse himself to answer a cell phone call from a reporter at *Wine Business Monthly*, a trade magazine that was planning a feature article on Green Shoe for a forthcoming issue. The sisters decided to end the meeting, privately evaluate all the alternatives, and present their plan to all employees, managers, and owners, including Arthur, preferably within two weeks' time.

END NOTES

1. With weakness in the private sectors of the economy manifesting themselves in 2007 and 2008, the federal government sector was utilized to take up the slack. Spending increased to make up for insufficient demand for goods and services as business and consumers reduced their spending. At the Federal Reserve, Mr. Bernanke reduced short-term interest rates to under one percent, in order to reduce the cost of capital and try to stimulate borrowing and spending. While the cost of obtaining funds was reduced, the earnings of savers was also reduced, lowering incomes for many households, especially those investing in fixed income instruments.

   The low interest rate policy affected other sectors of the economy. Owners and managers of pension plans, foundations, trusts, etc. had to make additional contributions to their funds in order to compensate for lower earnings on their assets. In the case of public pension plans, these higher contributions contributed to the fiscal challenges of local and state budgets.

   The characteristics of a slowdown in economic activity (recession) occur periodically over the years, at times much more severe than others. With time these pessimistic environments dissipate. The oversupply of housing units, created by government policies and exacerbated by private sector excesses in financing and risk taking, will wear off. With a growing population, demand will return, though the bubble will take longer to normalize. Banks and consumers are repairing their balance sheets and should be ready to increase spending in a much more prudent fashion than was the case just one to two years ago.

   In the business sector even well managed corporations were caught off guard by the very rapid decline in the demand for their goods and services. In 2008 inventories soared and earnings were severely reduced. As 2009 began, many of these firms reduced their levels of production, brought inventories more in line with final demand and positioned themselves for a return to more normal levels of sales. Their corporate debt levels were reduced and equity and liquid assets began to grow.

   While the government sector has worked to counteract weakness in the private sectors, some of its policies have been less than successful. Most of the early spending programs were of a very short term response to longer term problems. Financing temporary tax cuts ignores the role of expectations in the economy. History has shown that temporary tax cuts have little effect on spending. Unless tax cuts are expected to last, consumers use most of these funds to either add to savings or pay down debt (Milton Friedman's permanent income hypothesis – the level of consumer spending is a function of their long-term, expected level of income, not their absolute or relative income levels). The temporary tax reductions of the Carter and first Bush administrations confirm these outcomes.

   In contrast, the two most successful fiscal stimulus programs since WWII – under Presidents Kennedy-Johnson and Reagan, took the form of permanent reductions in corporate and marginal tax rates.

   Uncertainty plays a critical role in the decisions of consumers and business managers. Without a clear picture of the environment, spending decisions tend to be reduced or postponed. Yet the new administration embarked on major initiatives to revamp health care, financial services, attempted to regulate the telecom industry and impose new costs on energy. Until details of these plans and programs are finalized, their costs and impact are hard to forecast. Thus the attitude of decision-makers; lets wait and see.

   Over-riding all of these cyclical challenges are the longer term, secular problems of adequately financing Social Security, Medicare and Medicaid over the next several decades. These unfunded

liabilities are large and continue to grow, contributing to uncertainty for large segments of the population and the economy.

The economy of the United States needs long-lasting economic policies based on long-term strategies. Having "skin in the game" leads to superior outcomes. As Milton Friedman famously observed: "Nobody spends somebody else's money as wisely as they spend their own." When legislators put other people's money at risk- as when Fannie Mae and Freddie Mac brought risky mortgages, the result has been inevitable hardships for millions of people. Federal housing policies allowed down payments on home loans as low as zero. Banks were encouraged to make risky loans, and securitization separated lenders from their loans. Neither borrower nor lender had "skin in the game." Lax enforcement of existing regulations allowed both investment and commercial banks to circumvent long-established financial rules to take on excessive leverage. It would seem that regulators, not regulations, failed participants in these markets. There is much work yet to be done in order to get the U.S. economy back on a path of sustainable growth with stable prices and full employment.

2. Green Shoe Estates takes its name from a mechanism used by Andrew Stone in his career as a investment banker. The so-called Green Shoe option is used to bond an investment banker's implicit guarantee of an IPO's quality, thereby reducing the expected underpricing cost of the issue. The name comes from the first company to employ this over allotment option in its offering, the Green Shoe Company.

   The option gives the underwriter the right to purchase at the offer price a specified number of additional shares from the issuing company, usually under 10 percent. Because the option would be worthless if the offering is overpriced, investors can rely on the investment banker's self-interest to reduce that possibility. Thus, investors should be willing to pay a higher price for shares if the prospectus contains a "Green Shoe Option", all other factors remaining the same.

3. Rutherford, just 3.3 miles long and 2 miles wide, is a tiny jewel in the heart of Napa Valley and a "sweet spot" for growing Cabernet Sauvignon. Situated at the valley's widest point, midway between Carneros and Calistoga, Rutherford is warm enough during the day for its grapes to develop deep fruit character and graceful texture. Its nights are cool enough so that those grapes retain their balancing acidity. Long hours of sunlight foster even ripening. The terroir in Rutherford produces an elusive mélange of aromas and flavors widely known as "Rutherford Dust". The word terroir refers to the unique combination of soil, moisture, sunlight, and day and night temperatures that influence the quality and character of the grapes. So well suited is Rutherford for growing Cabernet Sauvignon that this single grape varietal comprises 70 percent of the region's vineyard acreage. The uniqueness of the region resulted in its recognition as a sub appellation of Napa Valley, the Rutherford American Viticultural Area (AVA), in 1993.

   The Rutherford Bench is a favored growing region for grapes, over flatlands. Its gravelly, alluvian fan soils of this elevated area, located at the foot of the Mayacamas Mountains, provides excellent drainage for root development. Roots dig deep in their search for water and nutrients, bringing up minerals that influence the grapes' flavor. Differences in soils, microclimate, sun exposure, clones and cultivation techniques contribute to the personality of each vineyard within the Rutherford AVA.

   Once the grapes are harvested, the wine style is influenced by the palate and techniques of the winemaker. Each wine brings out a unique flavor profile of Rutherford Dust. Rutherford Cabernet Sauvignons are renowned for their well-integrated tannins, which provide supple structure and long cellar-worthiness to these wines.

GLOSSARY OF COMMON WINE TERMS

Appellation - The region where the grapes are grown. A named political boundary (i.e., Monterey County, Calif.) must grow 75 percent of the grapes within the boundary. A named "viticultural area" (i.e. Napa Valley, Sonoma Valley) must produce 85 percent of the grapes. For a specified vineyard name, that particular vineyard, must grow 95 percent of the grapes.

Brand - The name of the product. This can be a made-up name, the name of the actual producer, a virtual winery, or it could be a restaurant or grocery store chain that contracts with a winery for a "special label" purchase.

Custom Crush Facility - A winery specializing in vinifying grapes on behalf of many different winegrowers, typically those without their own wine-making equipment. The facility keeps the various wines separate and the client markets them under their own labels. Such operations have played an important part in establishing new wine producers in California and other "New World" wine regions such as New Zealand.

Second Label Wines - Wines made or blended from grapes considered not good enough for the principal product made at an estate. The phenomenon, born in Bordeaux in the eighteenth century, reemerged in the 1908's when increased competition and market resegmentation forced many wineries in France and California toward even more rigorous selection of vines for their principal products or grand vin. A second wine made from a quality – conscious producer in a good vintage can represent good value-so long as it does not become a substitute for the grand vin.

Varietal – A type of grape (i.e., Merlot, Cabernet Sauvignon, Zinfandel, Chardonnay, etc.). To declare a "varietal" on the label, at least 75 percent of the wine must consist of that variety of grape. Some wineries use almost 100 percent of the same varietal. Some blend a principal varietal (the one named on the label) with wines made from other varieties of the same color for better flavor balance. Others blend in "filler" varieties, which usually go unlisted, to get the most out of their supply of then-popular varieties, which are the ones touted on the label. If the label mentions a varietal, it will always be in conjunction with an appellation to inform consumers of the source of the varietal grape.

Terroir – The unique combination of soil, moisture, sunlight and day and night temperatures that influence the quality and character of the grape.

Vintage – The year in which the harvest of the wine grapes occurs. By law, grapes grown in a declared vintage year (harvest year) must account for 95 percent of the wine if the label declares a vintage year.

Source*:* MDM Distribution

Exhibit 1
United States Beverage Consumption
(in millions of gallons)

Beverage Category	2008p	2007	2006	2005	2004	2003	ACGR [a] 2003-2008
Soft Drinks	14,138	14,580	15,278	15,368	15,413	15,308	-1.6%
Coffee	8,130	8,000	7,900	7,850	7,810	7,790	0.9%
Bottled Water	7,910	7,990	7,480	6,830	6,200	5,800	6.4%
Milk	6,960	6,970	6,980	6,910	6,900	7,000	-0.1%
Beer	6,628	6,586	6,444	6,359	6,386	6,338	0.9%
Tea	2,070	2,100	2,075	2,030	1,985	1,950	1.2%
Juices	1,720	1,770	1,820	1,850	1,880	1,860	-1.6%
Powdered Drinks	1,220	1,230	1,240	1,280	1,300	1,310	-1.4%
Wine	**701**	**694**	**673**	**651**	**637**	**614**	**2.7%**
Distilled Spirits	441	432	420	405	394	378	3.1%
Cider	10	10	10	10	10	10	0.0%
Total Beverages	**49,928**	**50,362**	**50,319**	**49,543**	**48,915**	**48,358**	**0.6%**

Notes: (p) Preliminary
(a) Annual Compound Growth Rate
Numbers may not add to totals due to rounding.

Source: *Adams Wine Handbook*, 2009

Exhibit 2
Retail Sales by Beverage Category
(in millions of dollars)

Beverage Category	2008 (p)	2007	2006	2005	2004	2003	ACGR 2003-08
Soft Drinks	$81,500	$82,000	$81,950	$81,843	$81,762	$79,612	0.5%
Beer	99,345	97,940	92,518	86,140	82,355	78,100	4.9%
Distilled Spirits	62,897	61,565	58,080	53,512	49,443	45,498	6.7%
Wine	**27,030**	**27,925**	**26,040**	**24,300**	**23,100**	**21,800**	**4.4%**
Milk	21,800	21,900	21,750	21,600	21,440	20,300	1.4%
Juices	14,950	14,970	14,950	14,900	14,890	14,694	0.3%
Bottled Water	11,500	11,450	10,500	9,950	9,350	8,700	5.7%
Coffee	10,300	10,300	10,300	10,270	10,220	10,127	0.3%
Tea	1,550	1,570	1,550	1,510	1,450	1,404	2.0%
Powdered Drinks	1,075	1,080	1,050	1,010	980	943	2.7%
Cider (Beverage	100	100	100	100	100	100	0.0%
Total	**$332,047**	**$330,800**	**$318,788**	**$305,135**	**$295,090**	**$281,278**	**2.6%**

Notes: (a) Annual Compound Growth Rate
(p) Preliminary
Retail sales estimates exclude sales tax

Source: *Adams Wine Handbook*, 2009

Exhibit 3
Wine Consumption in the United States by Category
(9-liter cases) (in Thousands)

Year	Table Domestic	Other Domestic	Total Domestic	Table Imported	Other Imported	Total Imported	Total Wine Consumption
2008	200,750	18,070	218,820	69,250	7,670	75,920	294,740
2007	196,500	18,280	214,780	70,500	6,810	77,310	292,090
2006	191,100	18,315	209,415	66,900	6,685	73,585	283,000
2005	185,600	18,475	204,075	63,200	6,410	69,610	273,685
2004	183,140	19,020	202,160	59,690	6,212	65,902	268,062
2003	177,380	19,150	196,530	55,670	6,032	61,702	258,232
2002	170,583	20,074	190,657	49,695	5,916	55,611	246,268
2001	164,844	21,077	185,921	42,807	5,705	48,512	234,433
2000	164,734	20,747	185,481	39,755	6,035	45,790	231,271
1999	161,179	23,070	184,249	34,117	7,030	41,147	225,396
1998	156,174	22,279	178,453	32,549	5,595	38,144	216,597
1997	151,918	24,862	176,780	31,314	5,588	36,902	213,682
1996	147,163	27,417	174,580	28,831	5,487	34,318	208,898
1995	138,437	27,692	166,129	25,675	5,203	30,878	197,007
1994	132,309	30,530	162,839	24,659	5,547	30,206	193,045
1993	126,611	34,860	161,471	22,017	5,082	27,099	188,570
1992	128,358	42,572	170,930	24,661	5,233	29,894	200,824
1991	119,977	52,400	172,377	20,367	5,426	25,793	198,170

Sources: www.beveragehandbooks.com
Adams Wine Handbook, 1999-2008
Adams/Jobson Wine Handbook, 1998
Jobson's Wine Handbook, 1992-1996

Exhibit 4
Wine Consumption in the United States
1980 – 2008

Year	Total Wine (Millions of Gallons)[1]	Total Wine (Per Capita)[3]	Total Table Wine (Millions of Gallons)[2]	Total Table Wine (Per Capita)[3]
2008	753	2.46 E	658	2.16 E
2007	746	2.47	651	2.16
2006	718	2.39	628	2.09
2005	692	2.33	609	2.09
2004	665	2.26	589	2.01
2003	643	2.21	574	1.97
2002	612	2.12	546	1.89
2001	572	2.00	512	1.79
2000	570	2.01	510	1.80
1999	543	2.02	475	1.77
1998	526	1.95	466	1.73
1997	519	1.94	461	1.72
1996	500	1.89	439	1.66
1995	464	1.77	404	1.54
1994	458	1.77	394	1.52
1993	449	1.74	381	1.48
1992	476	1.87	405	1.59
1991	466	1.85	394	1.56
1990	509	2.05	423	1.70
1989	524	2.11	432	1.74
1988	551	2.24	457	1.86
1987	581	2.39	481	1.98
1986	587	2.43	487	2.02
1985	580	2.43	378	1.58
1984	555	2.34	401	1.69
1983	528	2.25	402	1.71
1982	514	2.22	397	1.71
1981	506	2.20	387	1.68
1980	480	2.11	360	1.58

Notes: [1]All wine types including sparkling wine, dessert wine, and other special natural wines.
[2]Table wines include all still wines not over 14 percent alcohol content.
[3]Per capita consumption is based on the resident population of the U.S

Sourcea: The Wine Institute, www.wineinstitute.org
Gomberg, Fredrikson & Associates

Exhibit 5
Wine Sales in the U.S.
Domestic Shipments and Foreign Products
Entering U.S. Distribution Channels
(In millions of gallons)

Year	Table Wine[1]	Dessert Wine [2]	Champagne / Sparkling Wine	Total Wine[3]	Total Retail Value (In Billions)
2008	658	64	32	753	$ 30.00
2007	651	62	33	746	30.40
2006	628	58	32	718	27.80
2005	609	52	31	692	25.80
2004	589	45	31	665	24.00
2003	570	40	29	639	22.30
2002	546	38	28	612	21.60
2001	512	35	25	572	20.20
2000	510	33	27	570	19.30
1999	475	31	37	543	18.10
1998	466	31	29	526	17.00
1997	461	29	29	519	16.10
1996	439	31	29	500	14.30
1995	404	30	30	464	12.20
1994	394	33	31	458	11.50
1993	381	35	33	449	11.00
1992	405	37	33	476	11.40
1991	394	39	33	466	10.90

Note: [1] Includes all still wines not over 14 percent alcohol; excludes Canadian Coolers (made from malt).
[2] Includes all still wines over 14 percent alcohol.
[3] Numbers may not add to totals due to rounding.

Source: The Wine Institute, www.wineinstitute.org

Exhibit 6
U.S. Table Wine Market [1]
Color Mix Profile
(in millions of nine liter case shipment)

Year	Red	White [2]	Rose / Blush [3]	Totals [4]
2008	119	116	35	270
2007	118	115	32	265
2006	111	111	33	254
2005	103	107	33	244
2004	98	103	35	235
2003	91	97	35	223
2002	85	90	35	211
2001	78	82	36	197
2000	77	82	36	194
1999	74	74	38	185
1998	66	74	38	178
1997	61	76	39	176
1996	55	74	38	167
1995	46	76	39	156
1994	41	71	39	150
1993	36	68	38	143
1992	36	69	42	147
1991	26	67	40	133
1990	25	68	44	136
1985	33	99	27	159
1980	41	80	30	151
1975	36	27	21	83
1970	28	14	14	56

Note: [1] Consumption of Domestic and Imported Wine
[2] Includes white wine produced from white grapes only
[3] Includes all wines labeled "rose" or "blush" and all wines labeled "white" produced from red grapes.
[4] Numbers may not add to totals due to rounding

Source: "The U.S. Wine Market", Impact Databank, Review and Forecast", 1998, 2001, 2003, 2008.

Exhibit 7
Imports of Wine into the United States by Category, 1983-2008
(Thousands of Gallons)

Year	Table	Champagne & Sparkling	Dessert	Vermouth / Apertif	Others	Total
2008	194,400	12,344	11,242	1,577	6,419	225,982
2007	198,726	13,441	9,064	1,862	6,306	229,400
2006	184,090	12,754	7,039	1,933	6,894	212,710
2005	169,285	11,533	5,484	1,869	8,080	196,251
2004	152,391	10,679	4,494	1,923	6,527	176,014
2003	144,236	10,475	4,025	2,032	8,737	169,505
2002	131,565	9,629	3,070	1,941	13,374	159,579
2001	113,483	7,796	2,576	1,913	13,536	139,304
2000	104,148	9,841	2,303	1,982	10,614	128,887
1999	90,657	12,557	2,248	1,926	5,861	113,249
1998	93,451	8,771	2,145	1,997	3,366	109,730
1997	105,093	8,235	2,183	1,911	2,639	120,061
1996	80,199	8,093	2,076	1,937	2,623	94,928
1995	60,331	7,985	1,765	1,710	2,481	74,272
1994	58,059	7,925	1,731	1,899	2,997	72,611
1993	52,350	8,147	2,192	1,712	586	64,987
1992	58,638	8,128	2,216	2,084	15	71,081
1991	48,439	8,746	2,225	1,914	5	61,329
1990	51,639	10,274	2,988	2,249	11	67,161
1989	58,870	12,012	2,778	2,276	32	75,968
1988	62,483	13,024	3,159	2,290	67	81,023
1987	76,055	13,871	3,580	2,543	252	96,301
1986	87,238	14,302	3,662	2,674	822	108,698
1985	113,498	15,756	3,901	3,016	533	136,704
1984	120,570	14,908	4,011	2,922	50	142,461
1983	113,461	11,108	3,668	2,769	-	131,006

Note: Numbers may not add to totals due to rounding
(*) Includes Rice Wine/ Sake, Wine Coolers and other Fermented Wines.

Source: U.S. Department of Commerce,
Adams Wine Handbook, 2009

Exhibit 8
Imports of Wine by Category: Major Country of Origin, 2004-2008
(Thousands of Gallons)

Country	2008	2007	2006	2005	2004	'97-'02 ACGR	'03-'08 ACGR	'07-'08 %Chg
Total	**225,982**	**229,400**	**212,710**	**196,251**	**176,014**	**5.9%**	**5.9%**	**-1.5%**
Italy	63,840	67,792	62,394	58,459	55,528	5.9	2.1	-5.8
Australia	50,800	53,548	56,713	53,094	47,981	34.1	4.9	-5.1
France	29,249	33,538	31,562	25,888	24,749	-4.8	2.1	-12.8
Argentina	20,856	17,355	10,401	7,353	5,846	10.1	41.3	20.2
Chile	17,635	15,807	13,994	14,788	14,063	-3.2	5.5	11.6
Spain	13,486	13,194	11,997	11,023	9,433	7.4	10.3	2.2
Germany	7,682	8,164	7,291	6,428	5,008	6.9	11.2	-5.9
Portugal	2,869	3,017	2,746	2,706	2,479	3.7	5.2	-4.9
United Kingdom	1,068	1,119	978	801	639	-15.1	8.9	-4.6
Greece	497	597	501	560	504	0.6	-1.6	-16.7
Israel	392	367	275	243	325	5.4	6.4	6.8
Others	17,609	14,901	13,857	14,909	9,459	20.4	8.4	18.2
Table	**194,400**	**198,726**	**184,090**	**169,285**	**152,391**	**4.6%**	**6.2%**	**-2.2%**
Italy	57,091	60,586	55,862	52,440	47,920	6.1	2.2	-5.8
Australia	47,324	50,045	53,589	51,024	46,308	33.9	4.2	-5.4
France	23,789	27,392	25,596	20,471	19,958	-6.0	2.0	-13.2
Argentina	19,740	16,834	10,040	7,115	5,684	8.2	41.4	17.3
Chile	16,319	14,645	13,476	14,531	13,818	-3.3	4.0	11.4

Spain	8,521	8,356	7,697	6,987	5,908	12.9	11.8	2.0
Germany	7,509	7,928	7,109	6,249	4,874	6.8	11.4	-5.3
New Zealand	5,182	5,137	3,792	3,757	2,196	51.1	25.4	0.9
South Africa	3,887	2,496	2,379	2,154	1,663	20.6	26.7	55.7
Portugal	1,973	1,934	1,677	1,676	1,491	4.3	8.5	2.0
Greece	474	560	472	536	481	0.4	-1.4	-15.4
Israel	357	348	268	349	324	5.7	4.8	2.6
Hungary	245	259	204	195	159	9.3	6.9	-5.2
Slovenia	217	215	195	350	385	-1.3	-11.5	1.0
Romania	113	133	280	243	206	-22.1	-14.3	-15.4
Others	1,659	1,859	1,454	1,208	1,017	-22.2	11.3	-10.7

Exhibit 8
Imports of Wine by Category: Major Country of Origin, 2004-2008
(Thousands of Gallons)
(continued)

Country	2008	2007	2006	2005	2004	'97-'02 ACGR	'03-'08 ACGR	'07-'08 %Change
Dessert & Fortified	**11,242**	**9,064**	**7,039**	**5,484**	**4,494**	**7.1%**	**22.8%**	**24.0%**
Australia	3,091	3,056	2,656	1,814	1,461	46.5	17.5	1.2
Portugal	886	1,074	1,066	1,023	983	2.7	-0.5	-17.4
Spain	1,087	1,006	903	773	702	-3.4	8.2	8.1
Italy	901	974	802	722	633	9.9	7.2	-7.5
France	576	360	230	140	113	9.1	48.8	60.2
Others	4,701	2,596	1,382	1,012	602	20.6	74.4	81.1
Champagne & Sparkling	**12,344**	**13,441**	**12,754**	**11,533**	**10,679**	**3.2%**	**3.3%**	**-8.2%**
France	4,686	5,529	5,541	5,093	4,666	4.3	0.8	-15.2
Italy	4,095	4,279	3,762	3,431	3,257	2.1	4.6	-4.3
Spain	2,892	2,820	2,661	2,442	2,299	-0.7	5.6	2.5
Australia	358	422	432	220	183	26.0	28.8	-15.2
Germany	119	189	135	95	95	5.8	2.5	-37.1
Others	195	202	223	252	179	30.0	-7.8	-3.8

Vermouth/Aperitif	**1,577**	**1,862**	**1,933**	**1,869**	**1,932**	**0.3%**	**-4.9%**	**-15.3%**
Italy	1,491	1,734	1,822	1,753	1,796	1.5	-4.8	-14.0
France	82	119	108	104	108	-8.8	-5.5	-31.0
Others	4	10	2	12	28	-12.9	-27.9	-61.1
All Others [a]	**6,419**	**6,306**	**6,894**	**8,080**	**6,518**	**38.3%**	**-6.0%**	**1.8%**

Note: Includes wine coolers and other imported wines not listed;
Numbers may not add to totals due to rounding.
ACGR=Annual compound growth rate

Source: U.S. Dept of Commerce
Adams Wine Handbook, 2009

Exhibit 9
Green Shoe Estates
Revenues, Prices and Sales Volumes (Cases)
2004 - 2008

	2008	2007	2006	2005	2004
Cases					
Cabernet Sauvignon	22,350	21,200	20,100	19,850	19,250
Merlot	35,200	33,650	32,350	34,000	31,740
Pinor Noir	19,300	18,660	16,830	17,270	16,650
Chardonnay	34,110	32,680	31,500	32,530	30,690
Sauvignon Blanc	24,850	25,730	22,250	15,900	14,850
Totals	135,810	131,920	123,030	119,550	113,180
Price/Case					
Cabernet Sauvignon	$112	$108	$105	$103	$101
Merlot	88	86	82	80	78
Pinor Noir	82	80	77	76	74
Chardonnay	86	84	83	81	80
Sauvignon Blanc	78	76	75	73	72
Averages	$88.76	$86.24	$84.06	$82.58	$81.07
Revenues (in millions)					
Cabernet Sauvignon	$2.503	$2.290	$2.111	$2.045	$1.944
Merlot	3.098	2.894	2.653	2.720	2.476
Pinor Noir	1.583	1.493	1.296	1.313	1.232
Chardonnay	2.933	2.745	2.615	2.635	2.455
Sauvignon Blanc	1.938	1.955	1.669	1.161	1.069
Total Revenues	$12.055	$11.377	$10.342	$9.873	$9.176

Source: Company Data

Exhibit 10
Green Shoe Estates
Income Statements
(in thousands)

	2008	2007	2006	2005	2004
Gross Revenues	$12,621	$11,910	$10,845	$10,338	$9,622
Less : Excise Taxes	566	533	501	464	446
Net Revenues	12,055	11,377	10,344	9,874	9,176
Cost of Goods Sold	8,033	7,474	6,546	6,033	5,525
Gross Profit	4,022	3,903	3,798	3,841	3,651
Operating Expenses					
Marketing & Advertising	315	289	283	273	261
General & Administrative	1983	1747	1682	1586	1307
Total Operating Expenses	2298	2036	1965	1859	1568
Operating Income (EBIT)	1724	1867	1833	1982	2083
Interest Expense [1]	370	417	464	492	529
Earnings Before Taxes (EBT)	1,354	1,450	1,369	1,490	1,554
Provision for Income Taxes[2]	542	580	548	596	622
Earnings After Taxes	812	870	821	894	932

Note: 1- Mortgage at 7 ¼ %.
Term Loan at 8%
Line of Credit (Bank) at Prime + between 2 and 4.5% adjusted semi-annually
2- Effective Corporate Taxes (Federal and State) at 40%

Source: Company Financial Statements

Exhibit 11
Green Shoe Estates — Balance Sheets
(in thousands)

	2008	2007	2006	2005	2004
ASSETS					
Current Assets					
Cash	$432	$414	$402	$389	$375
Accounts Receivable	512	488	481	456	433
Inventories	7,107	6,802	6,497	6,162	5,818
Prepaid and other expenses	81	79	76	72	67
Total Current Assets	$8,132	$7,783	$7,456	$7,079	$6,693
Gross Property, Plant and Equipment	9,223	8,976	8,702	8,337	7,998
Less: Accumulated Depreciation & Amortization	3,594	3,101	2,732	2,398	2,076
Net Property, Plant and Equipment	5,629	5,875	5,970	5,939	5,922
Other Assets	32	31	33	30	28
Total Assets	$13,793	$13,689	$13,459	$13,048	$12,643
LIABILITIES & CAPITAL					
Current Liabilities					
Accounts Payable	$488	$472	$459	$438	$424
Accrued Expenses	442	426	409	388	366
Line of Credit (Bank)	560	1230	1830	2212	2661
Principal due on Mortgage	70	70	70	70	70
Total Current Liabilities	$1,560	$2,198	$2,768	$3,108	$3,521
Long Term Debt					
Term Loan	2,000	2,000	2,000	2,000	2000
Mortgage	2,040	2,110	2,180	2,250	2,326
Total Long Term Debt	$4,040	$4,110	$4180	$4,250	$4,326
Equity					
Class A Common	1,320	1,320	1,320	1,320	1,320
Class B Common	2,000	2,000	2,000	2,000	2,000
Retained Earnings (Loss)	4,873	4,061	3,191	2,370	1,476
Total Equity	8,193	7,381	6,511	5,690	4,796
Total Liabilities and Equity	$13,793	$13,689	$13,459	$13,048	$12,643

Note:
Class A Common Stock – 10 Votes; Class B Common Stock – 1 Vote
Currently Outstanding; 400,000 Class A shares; 100,000 Class B shares
Effective Corporate Taxes (Federal and State) at 40%

Source: Company Financial Statements

Exhibit 12
Green Shoe Estates
Statement of Cash Flows
(in thousands)

	2008	2007	2006	2005
Cash Flows from Operating Activities				
Net Income	$812	$870	$821	$894
Depreciation	493	369	334	322
Decrease (increase) in accounts receivable	-24	-7	-25	-23
Increase (decrease) in account payable	16	13	21	14
Decrease (increase) in inventories	-305	-305	-335	-344
Decrease (increase) in prepaid & other expenses	-2	-3	-4	-5
Decrease (increase) in other assets	-1	2	-3	-2
Increase (decrease) in accrued wages and taxes	16	17	21	22
Net Cash Flows from Operating Activities	$1,005	$956	$830	$878
Cash Flows from Investing Activities				
Capital Expenditure	247	274	365	339
Net Cash Flows from Investing Activities	-247	-274	-365	-339
Cash Flows from Financing Activities				
Increase (decrease) in Line of Credit (Bank)	-670	-600	-382	-449
Increase (decrease) in Mortgage	-70	-70	-70	-76
Increase (decrease) in Term Loan	0	0	0	0
Net Cash Flows from Financing Activities	-740	-670	-452	-525
Net increase(decrease) in cash and equivalents	18	12	13	14
Beginning cash and equivalents	414	402	389	375
Ending cash and equivalents	432	414	402	389

Source: Company Financial Statements

Exhibit 13
Green Shoe Estates — Property, Plant and Equipment — Year End Balances (In thousands)

Value of Property, Plant and Equipment	**2008**	**2007**	**2006**	**2005**	**2004**
Acres Owned	138	136	138	130	129
Land	$1,997	$1,977	$1,987	$1,786	$1,564
Vineyards	2,553	2,531	2,376	2,359	2,438
Machinery and Equipment	1,098	1,058	986	1,159	974
Buildings	1,869	1,799	1,787	1,575	1,486
Leasehold Improvements	644	607	588	532	566
Vineyards Under Development	1,062	1,004	978	926	970
Total Gross Value	$9,223	$8,976	$8,702	$8,337	$7,998
Less: Accumulated Depreciation	3,594	3,101	2,732	2,398	2,076
Net Property, Plant and Equipment	$5,629	$5,875	$5,970	$5,939	$5,922

Source: Company Financial Statements

Exhibit 14
Green Shoe Estates — Grape Supply (in percentages)

Source	**2008**	**2007**	**2006**	**2005**	**2004**
Owned Land	37%	37%	36%	34%	36%
Leased Land	20%	21%	24%	25%	25%
Purchased from Other Growers, Company Controlled	43%	42%	40%	41%	39%
Totals	100%	100%	100%	100%	100%

Source: Company Financial Statements

Exhibit 15
Green Shoe Estates — Inventory Positions at Year End (in thousands)

	2008	**2007**	**2006**	**2005**	**2004**
Bulk Wine	$2,556	$2,511	$2,434	$2,281	$2,204
Cased Wine (in warehouse and retail)	3,913	3,685	3,192	3,345	3,116
Crop Costs and Supplies	638	606	571	536	498
Total Inventory	$7,107	$6,802	$6,497	$6,162	$5,818

Source: Company Financial Statements

Appendix A

Report from Marketing Manager, Lou Hanson to Green Shoe Owners

The wine markets in the United Stated are expected to exhibit significant changes from the consumer demand that has been seen over the last five years. The "trading up" trend has now been replaced, at least for the next year or two, with a "trading down" trend.

With respect to our signature brands, I am projecting a 9 percent decline in sales volumes for Cabernet Sauvignon and 7 percent decline for Chardonnay in 2009. For 2010 I expect a flat year while 2011 should see renewed growth of 5 percent, as pricing power returns to producers of premium wine brands.

By lowering our price points for Merlot, Pinot Noir and Sauvignon Blanc we should be able to keep sales volumes unchanged, although revenues would decline by approximately 5 percent in 2009. Once our lower prices are seen in the marketplace, I expect a 15 percent increase in volume by 2010. At that time we can decide to move our prices up by 2 to 3 percent or keep them unchanged and see volume increase by another 15 percent.

The net effect of these programs will result in a financial challenge for 2009 (lower cash flows and higher inventories). But the pressure should decline by 2010 and we will be able to resume our premium growth strategies that have been so successful over the last two decades.

Attached to this report are projections of expected prices for our major brands as well as expected quantities to be sold, for the next three years (2009, 2010, 2011). While the mix of revenues generated varies for the three strategies we discussed at our meeting, total revenues each year are quite similar. However, the expenses necessary to achieve these sales levels, as well as the impact on the firm's balance sheet, are quite different.

Finally we must address the fact that $2 million of our long term debt (term loan) is due in late 2009! And Nancy has that Bed and Breakfast proposal to evaluate, for $2.9 million.

Exhibit A-1
Pricing and Value Expectations
2009, 2010, 2011

Maintain prices in order to defend the brand values that have been developed over the last decade: (Sally's Assumptions)

	2009	2010	2011
Cabernet Sauvignon			
Price/Case	$112	$114	$117
Expected Case Sales	19,000	20,000	22,000
Expected Revenues	$2,128,000	$2,280,000	$2,574,000
Merlot			
Price/Case	$88	$90	$92
Expected Case Sales	28,000	29,000	30,000
Expected Revenues	$2,464,000	$2,610,000	$2,760,000
Pinor Noir			
Price/Case	$82	$84	$86
Expected Case Sales	16,000	17,000	17,500
Expected Revenues	$1,312,000	$1,428,000	$1,505,000
Chardonnay			
Price/Case	$86	$88	$91
Expected Case Sales	28,000	29,000	31,000
Expected Revenues	$2,408,000	$2,552,000	$2,821,000
Sauvignon Blanc			
Price/Case	$78	$79	$80
Expected Case Sales	21,000	21,500	22,500
Expected Revenues	$1,638,000	$1,698,500	$1,800,000
Total Expected Revenue	**$9,950,000**	**$10,569,000**	**$11,460,000**

Note: Each case contains 12, 750ml bottles for a total of 9 liters of wine.

Source: The Hanson Report

Exhibit A-2

Reduce prices in order to increase competitiveness within a softening market environment: (Nancy's Assumptions)

	2009	2010	2011
Cabernet Sauvignon			
Price/Case	$105	$102	$107
Expected Case Sales	21,000	23,000	25,000
Expected Revenue	$2,205,000	$2,346,000	$2,675,000
Merlot			
Price/case	$78	$75	$81
Expected Case Sales	32,000	33,000	34,000
Expected Revenues	$2,496,000	$2,475,000	$2,754,000
Pinot Noir			
Price/Case	$72	$71	$74
Expected Case Sales	18,500	19,000	20,000
Expected Revenues	$1,332,000	$1,349,000	$1,480,000
Chardonnay			
Price/Case	$80	$79	$82
Expected Case Sales	31,000	30,000	32,500
Expected Revenues	$2,480,000	$2,370,000	$2,665,000
Sauvignon Blanc			
Price/Case	$70	$68	$70
Expected Case Sales	22,500	22,000	24,000
Expected Revenues	$1,575,000	$1,496,000	$1,680,000
Total Expected Revenue	**$9,908,000**	**$10,036,000**	**$11,254,000**

Note**:** Each case contains 12, 750 ml bottles, for a total of 9 liters of wine.

Source: The Hanson Report

Exhibit A-3

Maintain prices on the firm's premium brands and their market position while reducing prices on other brands to pick up market share and competitiveness: (Lou's Assumptions)

	2009	2010	2011
Cabernet Sauvignon			
Price/Case	$112	$112	$114
Expected Case Sales	19,000	22,000	24,000
Expected Revenue	$2,128,000	$2,464,000	$2,736,000
Merlot			
Price/Case	$80	$78	$83
Expected Case Sales	31,000	32,000	33,000
Expected Revenues	$2,480,000	$2,496,000	$2,739,000
Pinot Noir			
Price/Case	$74	$72	$74
Expected Case Sales	17,500	18,500	20,000
Expected Revenues	$1,295,000	$1,332,000	$1,480,000
Chardonnay			
Price/Case	$80	$80	$84
Expected Case Sales	31,000	29,500	32,000
Expected Revenues	2,480,000	2,360,000	2,688,000
Sauvignon Blanc			
Price/Case	$71	$70	$71
Expected Case Sales	22,000	21,000	23,000
Expected Revenues	$1,562,000	$1,470,000	$1,633,000
Total Expected Revenue	**$9,945,000**	**$10,122,000**	**$11,276,000**

Note: Each case contains 12, 750ml bottles, for a total of 9 liters of wine.

Source: The Hanson Report

Exhibit A-4
Estimate of key variables and relationships for each marketing strategy being evaluated by the owners and management of Green Shoe Estates

	2009	2010	2011
Sally Stone			
Income Statements (percent of net revenues)			
Cost of Goods Sold	65%	64%	64%
Depreciation & Amortization (% of PP&E)	4.0	4.0	4.0
Marketing &Advertising	2.6	2.7	2.8
Selling & Administration	16.2	16.2	16.4
Provision for Income Taxes	40%	40%	40%
Balance Sheets (percent of net revenues)			
Cash	3.4	3.4	3.4
Accounts Receivable	5.6	5.8	6.0
Inventories	84.6	83.3	82.7
Prepaid & Other Expenses	0.64	0.64	0.64
PP&E (change)	-	+ 2%	+ 3%
Accounts Payable	4.2	4.8	5.0
Accrued Expenses	3.5	3.5	3.5
Nancy Stone			
Income Statements (percent of net revenues)			
Cost of Goods Sold	66%	65%	65%
Depreciation & Amortization (% of PP&E)	4.0	4.0	4.0
Marketing &Advertising	3.6	3.7	3.8
Selling & Administration	16.7	16.8	16.9
Provision for Income Taxes	40%	40%	40%
Balance Sheets			
Cash	3.4	3.4	3.4
Accounts Receivable	5.8	6.0	6.1
Inventories	78.3	79.6	81.1
Prepaid & Other Expenses	0.64	0.64	0.64
PP&E (change)	+ 1%	+ 3%	+ 4%
Accounts Payable	4.0	4.2	4.3
Accrued Expenses	3.3	3.3	3.3

Source: The Hanson Report

Exhibit A-4 (continued)

Lou Hanson

Income Statement (percent of net revenues)			
Cost of Goods Sold	65.5%	64.5%	64.5%
Depreciation & Amortization (% of PP&E)	4.0	4.0	4.0
Marketing & Advertising	3.0	3.1	3.2
Selling & Administration	16.4	16.5	16.6
Provision for Income Taxes	40%	40%	40%
Balance Sheets			
Cash	3.4	3.4	3.4
Accounts Receivable	5.7	5.9	6.1
Inventories	81.1	82.2	81.7
Prepaid & Other Expenses	0.64	0.64	0.64
PP&E (change)	+ 1%	+ 2 %	+ 3%
Accounts Payable	4.1	4.3	4.5
Accrued Expenses	3.3	3.3	3.3

Source: The Hanson Report

"Other Assets" are $30,000, $31,000 and $32,000 for the years 2009, 2010 and 2011 respectively for both Sally and Nancy's proposals and $5,000 less in each year under Lou's proposals.

Appendix B

Evaluation of the offer from Mr. Arthur Malone and his group to invest $10 million for a 50 percent ownership in Green Show Estates

Mr. Hanson contacted two investment banking firms in the Napa area to generate various valuations of the company that he could present to the Stone sisters. They are summarized herein:

1. Mr. Malone's offer of $10 million for 300,000 shares, brings his ownership of Green Shoe Estates to 50 percent and values the firm at $20 million. Based on the latest 12-month earnings of the firm (2008) of $812,000, this represents a price/earnings ratio of 24.63. In the public equity markets, average equity multiples in recent months have been between 14 and 16 times trailing 12-month earnings per share. In the packaged foods and beverages industry, price/earnings ratios have been between 13 and 15 for most firms. The alcoholic beverage industry segment, a slower growing sector, had multiples between 11 and 13 times earnings. There are no "pure play" comparables for small wine producers as the last firm that would qualify was the Robert Mondavi Company, sold to Constellation Brands a few years ago.

2. Using a price/book value of equity ratio, the offer amounts to 2.44 times ($20 million divided by $8.193 million). One reason for this relatively high valuation on a historical basis for this industry is that the current value of company assets is quite likely to be higher that their historical book values. Inventory of wine is held at cost while the value of the product increases every day it is in the barrel.

3. Land values in the Napa Valley have increased significantly over the last decade, reaching levels of $120,000 to $140,000 per acre in recent months. Most of Green Shoe's land was purchased more than twenty years ago at significantly lower prices. Using the above market values only for acreage in production (138), the land alone is valued between $16,560,000 and $19,320,000. Inventories of wine, at current book value of $7.017 million represent a very conservative estimate of their market value. Other assets, after adjustments to current market values, are estimated at $1.4 million. Therefore, total assets amount to between $24.977 million and $27.737 million. After subtracting liabilities of $5.6 million (down from $7.84 million just 5 years ago), Green Shoe equity amounts to between $19.377 million and $22.137 million. Currently there are 500,000 shares outstanding. Therefore, market value per share ranges between $38.75 and $44.27.

JFCR
Journal of Finance Case Research

CALL FOR PAPERS

The *Journal of Finance Case Research* (JFCR) [ISSN 1527-5426] is a periodical double-blind refereed journal which began in the Fall of 1999. *JFCR* is the official journal of the Institute for Finance Case Research (IFCR). The *JFCR* seeks decision cases and discussion cases for possible publication. Decision cases should present a complete scenario to the reader, with proper appendices and support information to deal with the issues in the case. Decision cases should be accompanied by a separate teaching note that guides professors in effectively using the case to enhance the student's experiential learning event. Discussion cases target the exposition of more complex scenarios, and are more clinical in nature, often not necessarily seeking to provide a correct answer or strategy, but to provide a useful and complete anecdotal event or scenario. Although a teaching note should also be prepared for discussion cases, the teaching note often only guides the user through gleaning the particular lessons the case provides.

Direct submission to the *Journal of Finance Case Research* is invited at any time. These submissions should follow the *JFCR's* required format, and should be sent according to instructions on our website. All economics and finance cases are appropriate.

We hope the IFCR and journal can serve your professional needs.

www.jfcr.org

ADDRESSEE:
