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Instructors' Notes

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Inge Nickerson, Barry University
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LETTER FROM THE EDITORS

Welcome to the *Journal of the International Academy for Case Studies*. The editorial content of this journal is under the control of the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The purpose of the *JACS* is to encourage the development and use of cases and the case method of teaching throughout higher education. Its editorial mission is to publish cases in a wide variety of disciplines which are of educational, pedagogic, and practical value to educators.

The instructors' notes contained in this volume have been double blind refereed, simultaneously with their respective cases. The cases were published in a separate issue of the *JACS*. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies

If any reader is interested in obtaining a case, an instructor's note, permission to publish, or any other information about a case, the reader must correspond directly with the Executive Director of the Allied Academies: info@alliedacademies.org.

We intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

The Editorial Policy, background and history of the organization, and calls for conferences are published on our web site. In addition, we keep the web site updated with the latest activities of the organization. Please visit our site and know that we welcome hearing from you at any time.

Inge Nickerson, Barry University

Charles Rarick, Purdue University, Calumet

SMALL TOWNS DON'T ALWAYS HAVE SMALL PROBLEMS: ASHVILLE CASE STUDY

Stan Newton, Jacksonville State University
Patricia C. Borstorff, Jacksonville State University

CASE DESCRIPTION

The essence of this case is the evaluation of the impact of organizational structure on the efficiency of small municipal governments. The methodology used is that of Organizational Analysis (OA), which is a type of internal business appraisal aimed at identifying areas of inefficiency and opportunities for streamlining and reorganization. In this case, it involves the evaluation of policies and procedures that are performed on an ongoing basis in a small southeastern city government. Often not being designed on an efficiency model, but a political one, these organizations atrophy as personnel and requirements change over time. The situation of being subject to political, verses professional, leadership presents a challenge to the gaining of and the continuance of proficiency. Organizational features such as span of control and departmental responsibilities become quite complicated as there is typically a lack of stability in the quality of leadership. With the ebb and flow of demands, due either to exponential growth or substantial decline in population and the tax base, comes the need to realign areas of responsibilities. When this need goes unrealized or neglected appropriate changes in response to new situations are not made in a timely manner. Issues that need addressing may include work flow evaluation, reassessment of assignment of responsibilities, number and quality of personnel, and the adequacy of infrastructure. This case has a difficulty level of three and is suitable for a junior- level organizational behavior or management course. It can be taught in a 90 minute class with two hours of student preparation outside of class. The current trend in our society of expecting more from governments of all level gives this case a practical pertinence.

CASE SYNOPSIS

This case deals with an Organization Analysis (OA) for the city government of a small southern town. OA is an internal evaluation of an organization's strengths and weakness that will provide unbiased findings and recommendations to address shortcomings. The design of an organization can impact everything, from proper work flow to the efficient allocation of resources. The characters and situation that comes to life in the case are those of a popular but ineffective politician, an under-performing municipal government, and the consultant retained to perform this analysis. In spite of recent economic downturns the city is doing relative well and it is with considerable anticipation that Dr. Russell, the consultant, undertakes this behind the scenes evaluation. Dr. Russell's methodology for deriving the needed information is to interview a total of 26 persons holding leadership positions. While the interviews revealed somewhat diverse opinions, some consistent themes appeared. After analyzing this primary data, Dr.

Russell felt he had ascertained the principle problems and makes recommendations to correct them. Students find themselves entwined in the dilemma of striving to attain an acceptable level of city governmental performance while dealing with long standing traditions and pleasing, but ineffective, political operatives. Like the consultant, students are asked to provide solutions.

INSTRUCTOR'S NOTES RECOMMENDATIONS FOR TEACHING APPROACHES

This case helps students appreciate the challenges and opportunities in small town governance. In all towns, municipalities, and cities, there are issues that lead to conflict and inefficiencies. Personalities as well as policies or the lack thereof can result in hurt feelings, fewer services offered to citizens, and duplication of effort. Allow the students to read the case and then assign the questions. They can use the Internet to find all the answers which are provided below. Students are adept at finding information on the Internet and enjoy the success that this case brings.

We suggest to first investigate county governance, institutional analysis and communication problems. The students should answer the following questions:

1. What does reactive and proactive strategy mean and under what circumstances would they be successful?

Reactive strategy means an organization is slow to respond to their environment. More often than not management only takes corrective or responsive action when forced to do so. Proactive strategy means an organization is looking for problems and opportunities and what actions need to be taken to address them. With this type of strategy, opportunities can be exploited for any possible competitive advantage they provide and problems are addressed before they become a crisis.

2. What are some considerations for the problems between police and fire personnel concerning adequate compensation?

The problem of parity between the police and fire departments is quite common in municipalities of any size. As both professions come under the domain of public safety there is a perception in some circles that pay equality should exist; however, in most towns police are paid at a slightly higher rate. In the case of Ashville, with the fire department having the additional obligation of dual qualifications (Firefighter and EMT), perhaps the point of parity is valid and should be given full consideration.

3. What are some essential functions needed in the job description of the newly formed position of administrator? What employee qualifications would be adequate for such a position?

Essential functions for position:

Executive leadership in which advice and counsel would be given to the Mayor;
Knowledge of public administration, with particular reference to municipal administration, including the basic principles of organization and budget preparation; Knowledge of city

organization and functions; Human Resource development to include the facilitation of a team management approach; Ensure employee participation and collaboration in problem solving; Knowledge of the relationships within local government and other levels of government; Knowledge of research methods and techniques utilized to assemble, organize, and present in written or oral form statistical, financial, or factual information derived from a variety of sources; Knowledge of financial planning and budget management; Knowledge of the laws, ordinances, and other requirements governing local government; High degree of computer literacy, good writing and presentation skills.

Employee qualifications:

Bachelor's degree in business or public administration with adequate technical augmentation; Minimum of three years of experience in an administrative capacity in either a municipal or business environment; Ability to deal with the public, other officials, members of other boards and state and federal officers or representatives in a professional manner.

4. What suggestions might you give to the city mayor as to how to increase her effectiveness? What about additional training?

Effectiveness of the entire city government seemed to be restricted by the Mayor's lack of leadership. Which, in turn, is related to her lack of technical expertise and the excessive number of direct reports for which she is responsible. A solution to this problem could be the establishment of a new technical administrative position to relieve part of the Mayor's overburdensome supervisory obligations. This action would provide professional supervision to the technical areas while freeing the Mayor up to take advantage of available leadership training. Consolidation of departments may also be a viable solution.

5. How often should the mayor and department heads meet separately and collectively? How did you arrive at that amount? Also, how often to meet with an administrator.

Once a week meetings together would keep communication lines flowing among the various departments. It would also serve to lessen the duplication of services offered and that could help save money. As far as individual meetings, at least once monthly the individual should have an assessment meeting with the Mayor. This should be 'on the books' for the Mayor. Then the Mayor must be available for any decision that needs to be made by the various department heads. When an administrator is hired, he or she should have weekly scheduled meetings with the department heads.

6. How is the appraisal of the mayor done?

The mayor is an elected position so the people either re-elect her or choose someone else. She answers to no one in city government.

7. Give suggestions as to how the fire and police departments can improve retention?

Investigate the establishment of a tuition reimbursement program for newly hired college graduates to serve as a recruiting incentive. Identify available rewards for exceptional performance. Implement a coaching and mentoring program. Develop a leadership training program. Research and implement a career development system that includes a career track for

those who desire professional enhancements outside of the traditional rank structure. Provide training and counseling in life management skills. Provide continuous training and educational development, as well as career opportunities.

8. Discuss how training and required employee retention can be related? Would you consider requiring a certain amount of service for any training program?

Training and retention go hand in hand. When an organization invests in its people, the people respond with loyalty and good service. Although training might make the employee more employable (somewhere else), it is also making them a more effective employee at this location. One should never deny training just because one might lose an employee. When employees are sent to training (especially police and fire certification schools), the investment should be protected by requiring that they must stay with the city for a specific amount of time. If they fail to do so, then it must be spelled out how much, in monetary terms, that they must reimburse the city for their training. Typically, for every year of training, two years of employment is required. The financial penalty can be determined by looking at the cost of the schooling and that amount passed on to the employee.

9. How do municipalities manage the competition between fire and police for compensation? What do you suggest?

Some of this may depend on the services that they provide. For example, there are fire departments that provide EMT or First Responder services, and these require greater expertise and training, which probably results in higher levels of pay. Additional services provided by fire departments are coverage for emergency medical incidents, hazardous materials emergencies and natural disasters. The main issue is with inactive station house time that firefighters have as compared to that of the police department. A combination of a base salary, shift differential and longevity pay should be considered. Additionally, the issue of overtime should be addressed. If not the full time and a half, an agreed upon percentage may be the best alternative.

10. How do we deal with the duplication of services and duplication of personnel? Should downsizing be considered; if so, why?

The city's responsibilities have been reduced somewhat by the departure of their largest employer. However, the stabilization of the decline and the growth of other entities seem to indicate a need for the approximate current level of services and infrastructure. Perhaps the current duplications could be best addressed by the appointment of a technical administrative assistant to the mayor. This action would allow for the supervision of technical areas by a qualified individual while relieving the mayor of her over burdensome supervisory responsibility. Department consolidation may also be a viable option.

Downsizing's role here maybe that of attrition, with vacancies being filled only on an as needed basis. This would, over time, reduce city expenses while leaving the frame work to gear-up if the current growth trend continues.

11. What can we do about the lack of guidance from the Mayor's office to all constituents?

Pointing out to the mayor where there are bottlenecks in service to the city residents can be a powerful wake-up call. If the city is not responsive to the constituents, she will not be re-elected. Although the mayor believes that being at luncheons, award ceremonies, and other high profile activities is important, this does not take the place of the city functioning effectively and meeting the needs of the residents.

12. What is span of control? What is the ideal number of people reporting to a manager?

Span of control simply refers to the number of subordinates a manager has. Issues that directly affect the span of control and the number of people who report to a manager are things such as physical proximity, capability of subordinates, support systems and available personnel, and the similarity of the task being performed. Traditional views recommend about 7 (seven) subordinates per manager.

THE TALE OF TWO BANKS: SOCIÉTÉ GÉNÉRALE AND BARINGS

Pierre Canac – University of St. Thomas
Charlene Dykman – University of St. Thomas

CASE DESCRIPTION

The primary subject matter of this case concerns stories of financial fraud involving two rogue traders: Nick Leeson whose trading caused a 200 year-old institution, Barings Bank PLC, to lose almost \$1 billion and go bankrupt in 1995; and Jerome Kerviel who lost over \$7 billion for Société Générale in 2008. Secondary issues are the complexities of financial instruments driven by the growth in derivative markets. Additionally, there is discussion of operational risks and lack of managerial oversight. The focus is more on the managerial, procedural, and control issues than on the financial instruments themselves. This case can be used effectively in finance, auditing, information systems or management classes. The case has a difficulty level of four or five, appropriate for late undergraduate or MBA students. The case is designed to be taught in three hours and is expected to require three hours of outside preparation by students.

CASE SYNOPSIS

This case study documents the stories of two “rogue traders”, Nick Leeson of Barings Bank PLC in 1995 and Jerome Kerviel of Société Générale in 2008. The esteemed history of each banking institution adds to the drama of the case. Nicholas (“Nick”) William Leeson was the chief trader at the Singapore branch of Barings Bank PLC, while Jerome Kerviel was a low-level trader working in the Paris headquarters of Société Générale. These financial frauds led to bankruptcy for Barings (founded in 1762) and more than \$7 billion in losses at Société Générale (founded in 1864). Both of these “rogue traders” did not fit the typical psychological profile of successful traders who are usually educated at top-tier universities, are gregarious, possess a sense of invincibility, work extraordinarily long hours, are always connected to the market, sleep very little and react with joy or sadness based on the state of the market on a given day. Leeson and Kerviel were both from humble origins and earned degrees at second-tier universities and seemed far removed from the typical high-flying trading elite.

The case discusses the career path followed by each trader, the insider knowledge gained along the way, and the lack of oversight that provided opportunities for their fraudulent activities. These frauds are separated by more than thirteen years and many miles geographically, with the Barings fraud taking place in Asia in 1994-1995 and Société Générale in Europe in 2008. It seems that Société Générale failed to learn from the experiences at Barings which took place many years prior. Discussion is included about the dissimilar impacts each of the rogue trader’s actions had on their respective banks. Questions are raised regarding

what went wrong, the lack of operational and managerial controls and how similar frauds can be prevented in the future.

INSTRUCTORS' NOTES RECOMMENDATIONS FOR TEACHING APPROACHES

This case study is appropriate at the late undergraduate or MBA levels. The focus of the case requires only basic understanding of banking and financial instruments. This case can be used effectively in finance, auditing, information systems or management classes. The focus of the case is on controls, oversight, management practice and auditing for conformance to required procedures. Auditing background is not required, as the case itself provides an opportunity to discuss the issues related to auditing practices. The case requires approximately three hours for students to prepare and can be handled effectively in a three hour class discussion.

Students may be provided the questions posed below, prior to the class discussion. Or the professor may pose these questions to the class when the discussion begins. Students must read the case prior to the class discussion. Minimal additional Internet based research may be suggested to the students to supplement the facts included in the case.

Another effective way to use this case is for the purpose of examination. This is especially effective in an Information Systems Auditing Class, where students have a solid background in auditing process and procedures prior to dealing with this case. The questions given may be posed as examination questions for a two or three hour exam period.

ASSIGNMENT QUESTIONS

The assignment questions are focused on the lessons that should have been learned as a result of the Barings and SocGen debacles. Apparently few lessons were learned from the Barings fraud scandal as some 15 years later SocGen was hit by an even bigger rogue trading scandal. What have been some of the most fundamental failures at Barings and SocGen, and why is it that we seem to move from one scandal to another? Would some of the same activities that led to the Barings and SocGen scandals also be responsible for the risk management failures resulting in the subprime mortgage crisis that started in 2007 in the U.S. and then spreading to the rest of the world?

1. Discuss the lack of direct management oversight. Where was this evident at Barings and Société Générale?

Clearly any successful bank should allow a significant amount of discretion to employees in order to facilitate innovation. Some employees misuse the level of discretion that is granted to them while others don't. This raises issue of whether the problem comes from a lack of monitoring of employees' actions or from a bad hiring decision which led to the job being given to an untrustworthy individual. However since it is never possible to be 100% sure about someone's trustworthiness, it can be assumed that it will always be necessary to monitor employees' actions.

Even though Leeson at Barings had never held a trading license prior to his arrival in Singapore, there was little oversight of his activities and no individual was directly responsible for monitoring his trading strategies. Similarly Kerviel only became a junior trader in 2005 and had little trading experience when he began to build up his concealed position in the first three months of 2007. He also took advantage of the fact that his immediate supervisor had resigned and had not yet been replaced. The new direct manager, hired in April, 2007, failed to carry out any detailed check of the earnings generated by his traders, including Kerviel. Not only was this manager new and seemingly lacking the experience required to supervise several traders, he was also not given enough support and guidance from higher level management on the Delta One trading team. However, even under the previous manager, Kerviel was able to take unauthorized intraday directional positions on index futures and equities. This is even more remarkable because, unlike Leeson at Barings, Kerviel was working at the headquarters of a supposedly sophisticated financial institution.

2. Discuss and give examples of the lack of internal checks and balances at Barings and Société Générale. How could this lack of controls have been prevented?

Both Leeson and Kerviel were able to exploit their previous experience in the back office. For example, Kerviel knew that certain trades were only monitored at the end of the month. Thus he made sure to cancel them before the controls took place, and varied his techniques to avoid dealing with the same control agents when questions arose.

The most obvious way to prevent this overlapping situation is to clearly separate the front office from the back office and not to allow an individual to be promoted from the back office to the front office. In no circumstances should a trader be able to control the back office. If Barings and SocGen had not violated this basic rule, their respective rogue traders would have most likely been caught much earlier thereby avoiding the large losses incurred by the two banks.

Concurrently it might be appropriate to give more power to the back office or to ensure that a back office representative approves all trades. However this could have a damaging impact on both profitability and growth. Generally back office staff adds cost but does not generate revenue. Thus it is unlikely that the industry would want to give more strategic power to the back office. As long as this is so, the back and middle office teams may not be able to hold traders in check and enforce the necessary controls and rules. Instead they will only ensure that trades are properly executed rather than within the rules for trading.

Such lack of oversight was certainly predominant at SocGen as its highly profitable and growing investment banking business was given free rein. Clearly the bank, under its CEO, Mr. Bouton, appears to have favored growth over risk controls while the middle and back offices had to struggle the best they could in order to cope. Procedures and rules were not explicitly made clear, allowing traders to bypass them and collude with each other in order to cover their tracks and make it difficult for the control staff to identify potential violations.

However, the atypical behavior of Mr. Kerviel who regularly cancelled or modified trades claiming to have made a mistake, who had transactions recorded at off-market prices and who paid exaggerated brokerage fees should have aroused the suspicion of even the most overwhelmed middle and back office. His deception should have become obvious when SocGen

reconciled its trading accounts with the bank's cash position. Yet the bank remained unaware of the gap – sometimes reaching several billion euros - between Kerviel's actual position and the false trades he entered into the system. When an internal Société Générale report came out after the trading scandal, it established that the bank had failed to follow up on 75 warnings related to Kerviel's trading positions.

SocGen also admitted that it did not change its computer passwords regularly, as standard industry practice required, thus making it possible for Kerviel to record fake transactions under a false identity.

3. Discuss how assessing risk on a net basis (difference between the buy and sell prices) rather than a gross basis can hide the true risks faced by a bank and result in the inability of the compliance team to control and monitor the traders' accounts. Suggest ways to address the issues involved.

Like most banks, SocGen assesses its traders' risks on a net basis. Thus even a junior trader can buy €50 billion of equity derivatives, as long as he also takes offsetting short positions. This approach to risk management, focusing on net positions, is dangerous. Even traders who do not falsify their hedges can make massive bets that appear to involve small risks. This is particularly true if risk management assumptions are based on historical data or do not account for worst-case scenarios as is usually the case. The problem extends beyond equity derivatives; with the recent advent of derivative instruments such as credit default swaps (CDS), many of which are recorded as hedges, few people are confident that banks have accurately assessed the risks associated with these derivative products. Thus this focus on net exposure causes a lack of transparency.

As shown in the two cases considered in this paper, it is important for controllers to track not only the traders' net, but also gross risk exposures. This would reduce the incentive to enter into fake hedging transactions to hide highly risky trades. In order to insure that this is done, banks could be required to set up an internal fraud investigation group separate from its risk-control and trading divisions. This would require that new regulations be introduced to force banks to add another layer of costly controls that might significantly reduce their profit potential.

4. Discuss the impacts from a lack of limits on risk and suggest ways to address this issue.

Risk must be quantified and risk limits set and obeyed. Exceeding risk limits should not be acceptable even when they result in high profits. Clearly banks tend to be unwilling to punish a trader whose trades have been highly profitable. However, management should not allow high profits generated by taking risk levels that exceed approved limits. Thus Kerviel had started making unauthorized – but successful – trading bets as early as 2005. At times though, his profits would become so large that he feared that they would arouse the suspicion of his managers. Thus when he made a €1.4 billion (\$2 billion) profit for Société Générale in 2007, a sum equivalent to more than half the revenues of SocGen's entire equities division, he covered it up for fear of being caught. He delayed the settlement date on the profitable trades and made loss making trades in early January 2008 to hide his abnormally high profit. This allowed him to declare a profit of only €55 million to his employer.

Generally his managers did not pay much attention to existing data on his positions, valuations, earnings and cash flows that would have alerted them to Kerviel's unauthorized trades. If they had been more attentive, they would have realized that he did not respect the limits that had been set. The bank seemed to be totally oblivious to the risk of fraud and abuse in day-to-day operations as long as profits were being generated.

5. Discuss the apparent lack of understanding of the trading business among the top management and auditors of Barings and SocGen. How did this impact the ability of the two rogue traders to conduct their frauds?

If Barings and SocGen's auditors and top management had understood the trading business, they would have realized that it was not possible for Leeson and Kerviel to be making the profits that they were reporting without taking on huge risks, and where the money was coming from might have been questioned (Savage, 2008). Arbitrage and hedging, unlike speculation which both Leeson and Kerviel were not allowed to do, are supposed to be low risk, and hence low profit transactions, so those large profits should have caused management to investigate the matter. Given that arbitrage should be near cash-neutral, additional alarm bells should have gone off when Barings had to wire hundreds of millions of dollars from London to Singapore in order to comply with margin calls. Likewise Kerviel was supposedly responsible only for plain vanilla futures hedging on European equity market indices. Thus it is hard to believe that the bank was totally unaware of the fact that he was involved in more complicated strategies, including large speculative bets on European stock indices. The fact that his bets were covered up by entering false hedges into SocGen's risk management system does not reduce management responsibility.

Moreover, it should be noted that the bank itself is responsible for a significant portion of the losses suffered in early January 2008. Kerviel's trades initially caused a direct loss of €1.5 billion when SocGen first discovered the fraud. SocGen's management was responsible for the additional €3.4 billion loss that resulted from abruptly unwinding Kerviel's positions in a declining market.

In addition, the €3.4 billion trading loss by management was not the only risk management failure disclosed in January 2008. There was also a write-down of €2.60 billion on unhedged collateralized debt obligations (CDO) and subprime-related mortgage backed securities (MBS). The €1.5 billion loss by Kerviel was only ranked third on the list of bad news hitting SocGen during that time. As a consolation, many banks, including Merrill Lynch, Citigroup, Morgan Stanley, Bear Stearns, Northern Rock, UBS, Royal Bank of Scotland, and others have suffered even heavier losses from subprime-related derivatives and CDOs than SocGen. As was the case at SocGen, these banks' risk management systems did not alert managers, directors, or shareholders to the risk that a handful of people could significantly hurt their bottom lines. Thus one could argue that the banking system, not only SocGen, was impacted by a systemic problem caused by a risk management failure associated with derivatives.

6. Discuss the issue of a lack of a clear reporting line, especially for Leeson at Barings. How did this impact the potential for fraud?

Leeson's fraud may have been facilitated by the confusion caused by the lack of a single person within Barings in charge of supervising him. Instead there were at least two reporting lines: one to London and another to Singapore and even Tokyo. Such dual reporting can only blur the lines and encourage fraud (Marthinsen, 2009).

For Kerviel, the reporting line was clearer as he was working in Paris at the bank's headquarters, unlike Leeson who was "exiled" in Singapore. Thus, Kerviel knew who his direct supervisors were; he simply chose to ignore them as they ignored him.

7. Discuss the role of the global regulators with respect to the disclosure of data.

Although banking and finance are global, regulations are, for the most part, national with little coordination and cooperation among national regulators. There is currently some movement toward adopting some common regulatory standards, such as an agreement on capital requirements and bonus payments. However, fraudulent activities are likely to remain under the jurisdiction of national authorities.

The lack of disclosure to regulators results in the lack of information/transparency undermining the confidence of investors in a little understood area of modern finance that has been growing very rapidly (derivatives in general and collateralized debt obligations and mortgage backed securities in particular). The accounting rules related to the reporting of derivatives lack clarity.

There are two basic approaches toward regulations. The first one is the principles-based approach which requires regulators and those being regulated to engage in a constant dialogue about risk and compliance. This system encourages a more collaborative relationship with those being regulated, backed up by enforcement powers in cases of fraud, price manipulation or other market abuses. Another advantage to this principles-based regulation is its requirement that regulators incorporate cost-benefit judgments into their decision making. The British system is more consistent with this approach.

The second approach is a rules-based system which relies on market participants adhering to a fixed set of rules. The U.S. system follows this approach as it is largely based on rules built up since the Wall Street crash of 1929, although some of these rules have been weakened over the last 25 years (i.e. repeal of the Glass-Steagall act in 1999). One of its disadvantages is that it may not be flexible enough to deal with rapid product innovation, technological changes, and cross-border movement of capital. Some argue that this system is best for the U.S. as specific rules are needed for participants to know the limits of their behavior given that the U.S. system of litigation relies on strict rules that can be enforced. It has been argued that the shift away from rules in the U.S. has created a lax setting that is partly to blame for the subprime mortgage crisis. French banking was deregulated in the 1980s. As a result, the regulatory environment for French banks has changed radically as they have been adopting the rules and risk management models endorsed by the successive accords known as the Basel I and II accords. On-site inspection teams from the French Commission Bancaire verify that the reforms are being carried out while allowing for some flexibility. However SocGen has admitted that it had not integrated sufficiently the risk and control measures authorized by Basel II.

8. Discuss the role of the apparent inefficiencies in settling trades in increasing the potential for fraud:

According to the International Swaps and Derivatives Association (ISDA), an industry body, there is a huge back-office backlog in handling equity derivatives. This causes large delays in settling trades and allowed Jérôme Kerviel to prevent his fake trades from going through the settlement process, thereby avoiding detection. This is largely due to the low level of electronic settlement in the industry. The annual ISDA report, which covered 66 derivatives dealers around the world dealing in over-the-counter derivatives, showed that at the start of 2007 about 15 per cent of all equity derivatives trades contained mistakes in their paperwork that needed to be corrected before the trades could be settled. As a result the implied number of days needed to settle unconfirmed trades was fourteen for equity derivatives and five for credit derivatives. While regulators such as the New York Federal Reserve have been leaning on banks to improve their back-office procedures, bankers say that little progress has been made. Such delays allow rogue traders to enter into fictitious trades that can be reversed before they have time to settle.

9. Discuss the role of the remuneration structure (high remuneration and short term rewards) in encouraging these frauds. How can this be addressed?

High bonuses that reward short-term performance only encourage more risk taking by managers. In the past, senior executives who have been responsible for the large losses suffered by their institutions did not suffer any losses in compensation. Although they may be forced to resign their position, they often end up keeping their bonuses and receiving large golden parachutes on their way out.

Risk and uncertainty create an asymmetry in the reward system. At the upper end, the size of the bonus is not limited while at the lower end it is limited to zero. Thus while higher profits translate into higher bonuses for the traders and their supervisors, large losses are borne entirely by the bank and shareholders, and occasionally even taxpayers. This asymmetry provides an incentive for the managers and traders to take larger risks than those authorized by shareholders.

Bonus schemes need to be more long-term oriented. One way to achieve this result would be to link bankers' pay to realized cash flows instead of unrealized short-term profits. Another method would be to pay only part of the bonuses during profitable years. The rest would be placed in a reserves account to be used to cover future losses. If no losses occur, then the accrued bonuses would be eventually paid out. Additionally, the average size of the bonus should be reduced to take into account the fact that employees are not liable for potential losses. Also some "claw back" procedures could force employees to return their bonuses when short-term profits change into long-term losses. Finally the practice, sometimes used, of guaranteeing bonuses should be abolished since bonuses constitute, by definition, the variable part of the compensation.

Since we cannot expect that bankers will voluntarily agree to change their pay structures and receive lower compensation, it is only through mandatory industry approved guidelines or regulations that this problem can be addressed. It is important that these guidelines be mandatory; otherwise, if they are voluntary, the institutions that follow the guidelines would pay lower bonuses and have a hard time retaining their senior staff. Thus, following its successful

rights issue following the Kerviel scandal, SocGen continued paying bonuses to its traders in order to prevent them from defecting to another institution. This demonstrates that without mandatory regulations rationalizing the payment of bonuses, financial firms may be forced to keep paying large bonus payouts even when faced with declining earnings and a slowing global economy.

10. Compare the Barings and SocGen cases to the recent financial scandals involving Bernard Madoff and R. Allen Stanford? Discuss the major similarities and differences.

One can think about the international banking aspects of the Stanford case (Antiguan banking relationships) and how that compares with the Barings and SocGen cases. In the Madoff and Stanford cases there were very serious financial impacts on a large number of individuals while the Barings and SocGen losses were relatively small with few victims. Leeson and Kerviel in the Barings and SocGen cases were bank employees. Stanford and Madoff were owners/bosses.

In spite of these very significant differences, there are also glaring similarities in that all four of these financial frauds were conducted under the radar of the auditors, the oversight commissions and the regulators. It appears that fraud will continue to be a serious problem until oversight of financial transactions is taken seriously with a real assessment of the risks involved.

11. What is the role of Information Technology in helping to manage the risks involved in financial transactions?

Information Systems Auditors are professionals who should be encouraged to understand the underlying financial transactions taking place. Instead, the focus of the training is on looking at the computer-based information systems and assessing whether they are working as they are intended to work and whether management procedure are being followed as they should. Such auditors have relatively limited knowledge of the financial industry and how it works. They are unlikely to understand derivatives, swaps, hedge funds, etc. Information Systems professionals need training in the fundamentals of banking transactions and the basic financial and regulatory controls in order to be able to effectively audit and evaluate what is taking place. Additionally, systems would benefit from more transparency where transactions are not hidden from the view of upper management as well as those charged with oversight. Audits are usually conducted on an “engagement” basis, with clear definition of which systems and/or procedures will be audited, when, and exactly what within the system and/or will be evaluated. Random and unexpected audits should become an accepted practice in the banking industry.

12. Did Leeson at Barings and Kerviel at Société Générale suffer too much of the blame for what took place? Who else deserves part of the blame – management, Board of Directors, auditors, national regulators, global regulators?

The Barings and Société Générale rogue trading frauds had plenty of blame to go around. However, blame is different than criminal culpability. Henry Theroux, our consultant who is trying to develop a training program to be given at the Banking Institutes International Conference will need to separate the idea of poor management and ineffective controls from the

idea of outright fraud. Similar to Sarbanes-Oxley, we seem to be moving in the direction of holding management criminally responsible for illegalities conducted on their watches. Until that happen, we need to be certain internal and external auditors, regulators, and managers know how to do their jobs and understand the serious impacts that failure to do their jobs effectively may have. Information Technology professionals need to understand the underlying business operations of the systems they are reviewing. Similarly, banking management, auditors, and regulators must understand the operational processes of the information systems used and the controls which need to be implemented (Curtis, 2009). Henry's workshop needs to view these issues broadly to assure that those charged with all aspects of oversight are adequately prepared to accomplish their goals.

CONCLUSION

Risk management is not about eliminating risk, but about taking a level of risk that is commensurate with one's business model. Clearly this is easier said than done when financial products are continuously becoming more complex and regulations do not keep up with the pace of innovation. It is only when major corporate failures occur (i.e. Enron) that regulatory and control procedures are updated. At the same time, and even more importantly, institutions must continuously develop and maintain a governance structure able to correctly identify, measure, and manage their exposure to risk. In a world of greed and fraudulent behavior, a firm cannot afford to be complacent when agreed upon risk-management practices and risk limits are not closely observed.

We can conclude from the comparison of the Barings and SocGen cases that a common element in rogue trading scandals results from the failure on the part of management to insist that: (1) trading, risk control, and settlement systems are separate and no individual has access to more than one system; (2) losses are discovered before they have reached catastrophic proportions; and (3) all elements of the trading system are reconciled regularly with other internal, client and external data.

A management culture that tolerates deviations from these principles is exposed to large "surprise" rogue losses. It is also necessary for the compensation structure to be adjusted so that managers are less likely to disregard these principles when traders make large gains. This requires that a high-performance trading floor culture that ignores risk is not allowed to subsist.

Finally no amount of regulation will get traders and their managers to behave properly if individuals, both traders and managers, lack moral integrity. Firms need to find a way to make their employees proud of being honest.

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AN INTERNATIONAL ACQUISITION FOR HOLOGEN INC.

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CASE DESCRIPTION

The primary subject matter of this case is the valuation of an international acquisition. Secondary issues examined include assessing exchange rate risk and performing sensitivity analysis. The case requires students to have an introductory knowledge of accounting, statistics, finance and international business thus the case has a difficulty level of four (senior level) or higher. The case is designed to be taught in one class session of approximately 3 hours and is expected to require 3-4 hours of preparation time from the students.

CASE SYNOPSIS

Hologen Inc., a diversified medical technology company, currently operates in three business segments (Breast Health, GYN Surgical, and Skeletal Health). Hologen's strategy for long-term growth had previously been focused on expanding the breast health segment, the largest of the three divisions. In response to the potential vulnerability of the breast health division, Hologen's CEO has suggested the company pursue an acquisition that would diversify its product line as well as increase its exposure in international markets. Hologen's vision is to become the world's largest pure-play women's health-care company. In order to achieve this status, Hologen would need to enter the diagnostic health-care segment of the industry and expand international sales.

Hologen felt the quickest and more cost effective way to accomplish these goals was through an acquisition of an existing diagnostic company with an international clientele. The company Hologen is interested in acquiring is a British firm, Cybertech. Cybertech is a molecular diagnostic company whose main product line is T-Prep, the most widely used method for cervical cancer screening in both Europe and the United States. In addition, Cybertech had been expanding market penetration to include Asia, India and Brazil. Cybertech, a publicly traded company listed on the London Stock Exchange, has a current market capitalization of about 252 million British pounds.

INSTRUCTORS' NOTE CASE OVERVIEW

Hologen, Inc. is a diversified medical technology company that develops, manufactures, and distributes medical imaging systems and surgical products for serving the healthcare needs of women. The company currently operates in three segments: Breast Health, GYN Surgical, and

Skeletal Health. The breast health segment is the Hologen's largest division, contributing to about 60% of sales. Even though Hologen is well positioned in the digital mammography industry, with a market leading 65% share in the United States, the company is concerned the US market is becoming saturated.

To date, Hologen's current strategy for long-term growth has been focused on the breast health segment. Hologen has continued to invest in research and development to maintain a competitive advantage in the digital market. In addition, the company has focused heavily on 3 D imaging devices, which the company believes is the next frontier for digital mammography. In response to the potential vulnerability to the breast health division, Hologen's CEO has suggested the company pursue an acquisition that would diversify its product line as well as increase its international exposure. Hologen's vision is to become the world's largest pure-play women's health-care company. In order to achieve this status, Hologen would need to become a participant in the diagnostic health-care segment and increase international sales.

Hologen felt the quickest and more cost effective way to accomplish these goals is through an acquisition of an existing diagnostic company with an international clientele. The company Hologen is interested in acquiring is a British firm, Cybertech. Cybertech is a molecular diagnostic company whose main product line is T-Prep, the most widely used method for cervical cancer screening in both Europe and the United States. In addition, Cybertech had been expanding market penetration to include Asia, India and Brazil. Cybertech, a publicly traded company listed on the London Stock Exchange, has a current market capitalization of about 252 million GBP.

TASKS TO BE PERFORMED

- 1) *What is the highest per share cash offer Hologen could make using a free-cash flow model of valuation of Cybertech under Hologen's management given the following assumptions:*
 - a. *Revenues are expected to increase 10% the first year, 12% the second year, and 8% the third year. After the third year revenues are expected to increase at a long-run constant rate of 6%.*
 - b. *Gross margins will increase to 52%. Gross Margins are equal to Gross Profits/Revenues. Gross Profits are equal to Sales Revenues minus Cost of Goods Sold.*
 - c. *SG&A expenses will be reduced to 10% of Sales Revenues*
 - d. *R&D expenses will be reduced to 9% of Sales Revenues*
 - e. *Depreciation is expected to remain constant at 1 million GBP per year*
 - f. *The tax rate of Cybertech's earnings is expected to be 38%*
 - g. *Cybertech would require 3 million pounds in cash each year to support existing operations for capital expenditures and increase in net working capital.*
 - h. *The free cash flows generated by Cybertech would be remitted back to Hologen each year assuming a constant exchange rate of \$1.60/1GBP.*
 - i. *The current exchange rate is \$1.59/1GBP*
 - j. *Scott has estimated that the appropriate required rate of return for this acquisition is 14%.*

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Forecast 2010	Forecast 2011	Forecast 2012	
	GBP	GBP	GBP	GBP	GBP	GBP	GBP	2013 GBP
Net Sales (Actual)	57	59	86	113				
Forecast % Change in Sales					10%	12%	8%	6%
Net Sales (Forecast)					124.3	139.2	150.4	159.4
Costs and expenses								
Cost of sales (Actual)	30	32	46	59				
Gross Margin	47%	46%	47%	48%				
Forecast Cost of Sales					59.7	66.8	72.2	76.5
Forecast Gross Margin					52%	52%	52%	52%
Selling G & A (Actual)	5	6	14	17				
SGA as % of Sales (Actual)	8.8%	10.2%	16.3%	15.0%				
Selling G & A (Forecast)					12.4	13.9	15.0	15.9
SGA as % of Sales (Forecast)					10%	10%	10%	10%
Research and Development (Actual)	7	7	10	14				
R&D as a % of Sales (Actual)	12.3%	11.9%	11.6%	12.4%				
R & D (Forecast)					11.2	12.5	13.5	14.3
R & D as a % of Sales (Forecast)					9%	9%	9%	9%
Depreciation (Actual)	1	1	1	1				
Depreciation (Forecast)					1	1	1	1
Total costs and expenses (Actual)	43	46	71	91				
Total costs and expenses (Forecast)					84.3	94.3	101.7	107.8
Operating income (Actual)	14	13	15	22				
Operating Margins (Actual)	24.6%	22.0%	17.4%	19.5%				
Operating income (Forecast)					40.0	44.9	48.6	51.6
Operating margins (Forecast)					32.2%	32.3%	32.3%	32.4%
Tax Rate (Actual)	0.38	0.38	0.37	0.37				
Tax Rate (Forecast)					0.38	0.38	0.38	0.38
After-Tax Operating Income (Actual)	8.7	8.1	9.5	13.9				
After-Tax Operating Income					24.8	27.9	30.1	32.0
Capital Funds to Reinvest					3	3	3	3
Free Cash Flow (Forecast)					22.8	25.9	28.1	30.0
Terminal Value of Free-Cash Flow (Steady)							374.9	
Total Free Cash Flow (FCF)					22.8	25.9	403.0	
Exchange Rate (US\$/1GBP)					\$ 1.60	\$ 1.60	\$ 1.60	
Cash Flow in US dollars (Millions)					\$ 36.50	\$ 41.38	\$ 644.79	
PV of Cash Flow in millions (Discount rate =				\$499.07				
Current Exchange Rate (US\$/1GBP)				\$ 1.59				
Equivalent amount in GBPs				313.88				
Number of Shares Outstanding				60.00				
Highest Offer Price				5.23				
Current Price of Cybertech (Pounds)				4.20				
% Premium over current Valuation				24.6%				

2) How would short-term changes in the value of the British pound affect the likelihood of acquiring Cybertech with an all cash offer? (Assume the free-cash flows generated by Cybertech would still be remitted back to Hologen at a constant exchange rate of \$1.60/1GBP)

Cybertech future cash flows are current worth \$499 million dollars to Hologen. At a current exchange rate of \$1.59/1GBP, this is equivalent to 313.88 million pounds. There are 60 million shares outstanding resulting in a maximum price per share offer of 523 pence. If the British pound were to appreciate in the short run, \$499 million dollars would be worth fewer pounds and the maximum per share offer would decrease, reducing the probability of a successful acquisition. For example, if the British pound were to appreciate in the short term to \$1.63/GBP, \$499 million dollars would be equivalent to only 306 million pounds. With 60 million pounds outstanding, this would reduce the maximum per share offer to 510 pence. If the British pound were to weaken in the short run, this would allow Hologen to increase the maximum per share offer in pounds.

3) How would short-term changes in London stock market conditions affect the likelihood of acquiring Cybertech with an all cash offer?

Cybertech is currently trading at 420 pence. Changes in stock market conditions affect the price per share of each stock in the market. Since the acquiring firm will need to offer a substantial premium over the current stock price to acquire all outstanding shares, any changes in the current stock price will impact the percentage premium offered. Holding all other variables constant, Cybertech's cash flows are worth \$499 million to Hologen. At a current exchange rate of \$1.59, this translates into a maximum offer of 523 pence. This represents about a 25% premium above the current stock price. However, assume that market conditions in England improve and Cybertech's stock price rises to 460 pence, Hologen offer of 523 pence will only represent a 14% premium reducing the likelihood that Cybertech's shareholders will accept the offer.

4) Assume the terms of the long-term currency swap changed to \$1.55/1GBP. What impact would this have on the highest per share cash offer Hologen could make and the likelihood of acquiring Cybertech holding all other assumptions constant?

The total free cash flows from Cybertech are forecasted as follows:

	2009	2010	2011	2012
FCF in Pounds (Millions)		22.8	25.9	403.0
Exchange Rate from Swap		\$1.55	\$1.55	\$1.55
FCF in US Dollars (Millions)		\$35.4	\$40.1	\$624.6
PV of FCF (Millions)	\$483.5			
Current Exchange Rate	\$1.59			
Equivalent in Pounds (Millions)	304.1			
Highest Per Share Offer (Pence)	507			
Current Price (Pence)	420			
Percent Premium	20.7%			
PV of FCF (Millions)	\$483.5			

The highest per share offer price would be reduced from 523 pence to 507 pence. This reduces the premium over the current share price from 24.6% to 20.7%. The pounds generated by Cybertech are remitted back at a lower exchange rate, thereby reducing the value of the foreign acquisition from Hologen's point of view.

5) Assume the terms of the long-term currency swap changed to \$1.63/1GBP. What impact would this have on the highest per share cash offer Hologen could make and the likelihood of acquiring Cybertech holding all other assumptions constant?

The total free cash flows from Cybertech are forecasted as follows:

	2009	2010	2011	2012
FCF in Pounds (Millions)		22.8	25.9	403.0
Exchange Rate from Swap		\$1.63	\$1.63	\$1.63
FCF in US Dollars (Millions)		\$37.2	\$42.2	\$656.9
PV of FCF (Millions)	\$508.4			
Current Exchange Rate	\$1.59			
Equivalent in Pounds (Millions)	319.8			
Highest Per Share Offer (Pence)	533			
Current Price (Pence)	420			
Percent Premium	26.9%			

The highest per share offer price would increase from 523 pence to 533 pence. This increases the premium over the current share price from 24.6% to 26.9%. The pounds generated by Cybertech are remitted back at a higher exchange rate, thereby increasing the value of the foreign acquisition from Hologen's point of view.

- 6) Assume that Rollins is not able to implement the desired cost savings after acquiring Cybertech and Gross Margins would remain at their historical average of 48%. (Utilize all other base assumptions from questions 1) What impact would this have on the highest per share cash offer Hologen could make and the likelihood of acquiring Cybertech without the additional cost savings?**

	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	
	2006	2007	2008	2009	2010	2011	2012	2013
	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP
Net Sales (Actual)	57	59	86	113				
Forecast % Change in Sales					10%	12%	8%	6%
Net Sales (Forecast)					124.3	139.2	150.4	159.4
Costs and expenses								
Cost of sales (Actual)	30	32	46	59				
Gross Margin	47%	46%	47%	48%				
Forecast Cost of Sales					64.6	72.4	78.2	82.9
Forecast Gross Margin					48%	48%	48%	48%
Selling G & A (Actual)	5	6	14	17				
SGA as % of Sales (Actual)	8.8%	10.2%	16.3%	15.0%				
Selling G & A (Forecast)					12.4	13.9	15.0	15.9
SGA as % of Sales (Forecast)					10%	10%	10%	10%
Research and Development (Actual)	7	7	10	14				
R&D as a % of Sales (Actual)	12.3%	11.9%	11.6%	12.4%				
R & D (Forecast)					11.2	12.5	13.5	14.3
R & D as a % of Sales (Forecast)					9%	9%	9%	9%
Depreciation (Actual)	1	1	1	1				
Depreciation (Forecast)					1	1	1	1
Total costs and expenses (Actual)	43	46	71	91				
Total costs and expenses (Forecast)					89.3	99.8	107.8	114.2
Operating income (Actual)	14	13	15	22				
Operating Margins (Actual)	24.6%	22.0%	17.4%	19.5%				
Operating income (Forecast)					35.0	39.4	42.6	45.2
Operating margins (Forecast)					28.2%	28.3%	28.3%	28.4%
Tax Rate (Actual)	0.38	0.38	0.37	0.37				
Tax Rate (Forecast)					0.38	0.38	0.38	0.38
After-Tax Operating Income (Actual)	8.7	8.1	9.5	13.9				
After-Tax Operating Income (Forecast)					21.7	24.4	26.4	28.0
Capital Funds to Reinvest					3	3	3	3
Free Cash Flow (Forecast)					19.7	22.4	24.4	26.0
Terminal Value of Free-Cash Flow (Steady State)							325.4	
Total Free Cash Flow (FCF)					19.7	22.4	349.9	
Exchange Rate (US\$/1GBP)					\$ 1.60	\$ 1.60	\$ 1.60	
Cash Flow in US dollars (Millions)					\$ 31.57	\$ 35.86	\$ 559.77	
PV of Cash Flow in millions (Discount rate = 14%)				\$433.11				
Current Exchange Rate (US\$/1GBP)				\$ 1.59				
Equivalent amount in GBPs				272.40				
Number of Shares Outstanding				60.00				
Highest Offer Price				4.54				
Current Price of Cybertech (Pounds)				4.20				
% Premium over current Valuation				8.1%				

7) Address the potential strengths and weaknesses of the proposed acquisition of Cybertech.

Hologen's proposed acquisition of Cybertech appears to address some concerns Hologen has in regards to future growth opportunities. It addresses the desire to expand into global markets where higher growth opportunities reside. Their core business of breast imaging products is becoming saturated in the US market and margins are diminishing. Expanding into a higher margin segment of diagnostics via an acquisition of Cybertech should help drive sales going forward. In addition, Cybertech's established sales force in Europe should provide cross-selling opportunities between divisions. Under the original assumptions, Hologen could offer Cybertech's shareholders a 24.6% premium over current share prices. Given that successful takeovers typically require a premium of 15% to 35% over current share prices, this acquisition has a better than average chance of success. However, there are significant risks involved with integrating an acquisition into existing operations. Hologen may not be able to fully realize the revenue enhancement and cost savings projected. The additional risks involved with an international acquisition include short-run changes in currency values and stock prices as well as future exchange rates. In order to justify a significant premium, the cost saving and revenue enhancement must be successfully integrated.

OMEGA GEOPHYSICAL CORPORATION

Robert (Chip) Matthews, Sam Houston State University

Joe James, Sam Houston State University

James B. Bexley, Sam Houston State University

CASE DESCRIPTION

The OMEGA Geophysical Corporation (OMEGA) case was originally designed as a commercial lending case. The case is centered around a loan request from OMEGA to Third National Bank of San Luis Obispo. Company representatives gave the funding needed to reorganize and relocate various company operations as a purpose for the loan request. OMEGA is a multinational company engaged in manufacturing several high-technology product lines and providing related technical services in a highly competitive industry. The company provides both mature and developing products and services to both established and emerging markets. Financial statements provided for analysis include 5-year historical balance sheets, income statements, and statements of cash flows, and 5-year projected balance sheets and income statements.

CASE SYNOPSIS

The case contains sufficiently complex decisions and concepts to challenge advanced graduate students, but is flexible enough to not overwhelm junior and senior level undergraduate students if the faculty member directs the focus to the less complicated issues. In addition to the standard issues involved in commercial lending, there are production, marketing, human resources, and ethics issues that can be considered for focal points of study. Cases based upon the material included can also be developed for use in Human Resources Management, Operations Management, Marketing, and Business Ethics courses at similar levels with the same limitations. There is flexibility built into the materials and the teaching notes to allow the faculty member to adapt the case to meet instructional needs either the undergraduate or graduate level and to focus on the specific discipline of the course in which the students are enrolled. The case is designed to be taught in two to three class hours and is expected to require six to eight hours of outside preparation by students. The faculty member can choose to include all or part of the material provided. The case provides ample opportunity for faculty modification to meet individual styles and needs in commercial lending as well as the different disciplines mentioned above.

INSTRUCTOR'S NOTES RECOMMENDATIONS FOR TEACHING APPROACHES

This case addresses several major issues facing the United States and its economy at this time. As such, it enables the instructor to focus on those elements appropriate for the discipline where the case is used. Although developed primarily as a commercial lending course appropriate for more advanced undergraduate or for graduate students, it also contains material adaptable to legal, marketing, international business, and human resources courses. To stimulate interest in using the case for other than commercial lending, example questions have been included that could be used in a human resources environment.

When using similar cases in commercial lending, the authors have had success with dividing the class into groups and having each group either work on the same case or another case. Materials provided to the student consist of the case narrative and select financial exhibits. For the advanced audience where this case was intended, the exhibits only include the borrower's balance sheet and income statement. The other exhibits are expected to be constructed by the students and provided as part of the assignment. Thus they are not included with the case introduction material that ends with the Sample Questions but have been attached as exhibits with the Instructors' Notes. These exhibits can be selected and provided as the instructor deems necessary, especially when dealing with disciplines other than commercial lending.

Exhibit 3 provides the cash flow statements to accompany the balance sheets and income statements included in Exhibits 1 and 2, respectively. In Exhibits 4 and 5 ratios are calculated to provide both common size financial statements and to provide the basis for the pro forma financials found in Exhibits 6 and 7.

At first glance, the pro forma financial statements may appear to be more generous than the common size calculations would indicate. This is because the most conservative treatment of expectations for the future would result from the loan approval and immediate funding of the entire amount. Since it is unlikely that the entire loan proceeds would be funded at closing this provides the worst case scenario that would be expected and therefore we consider it to be the situation that would cause the most risk to the lender.

SAMPLE QUESTIONS AND POSSIBLE ANSWERS

1. If you were OMEGA's banker, would you make the requested loan?

Although the financial information is showing some volatility, it generally indicates a borrower that has the capability to repay the loan. Additional considerations appear in the successive questions and possible answers.

2. What factors favor making the loan?

- Growth in sales, operating income, and net income.
- Sufficient net income and cash flow from operations to service debt.
- Positive net working capital.

3. **What factors oppose making the loan?**

- Lending concentration issues.
- Opportunity costs foregone with other projects.
- Questions as to whether projected cost reductions may in fact be realized.
- Realizability of goodwill and other intangible assets.
- Potential problems with collateral preservation and collection relating to foreign operations.
- Potential ethical/public relations issues resulting from facilitating move of American jobs offshore.
- Potential lingering impact of any issues from prior years' shareholder-management dispute.
- Potential lingering impact of any Sarbanes-Oxley deficiencies identified in prior years.
- Potential exposure to liability relating to employment of undocumented aliens.
- Potential issues regarding successful integration of operations after significant shifts in geographic location.

4. **Would you make the loan alone or with another bank?**

The information provided in the case material provides evidence to support either answer the student group chooses. However, the concerns related to opportunity costs foregone with other possible projects as well the lending concentration issues should receive strong consideration and would be the basis for our choice to not tackle the entire loan in-house.

5. **If you elect not to make the loan alone, what would be the advantages to consider by participating with another bank?**

The immediate advantages would be reduced risk and lending concentration. A long-term advantage could be the opportunity for reciprocal participation opportunities from other institutions.

6. **What about the possibility of participating partners in one of the countries to which operations are being moved (Brazil, India)?**

If a suitable opportunity is available, this option offers some definite advantages. First, there may be governmental restrictions that require such an arrangement. In addition, the local institution would have advantages of being familiar with the business environment, culture, and political realities in the local area.

7. **If you would not make the loan as requested, are there changes which could be made that would cause you to change your mind?**

In the event the group does not decide to grant the loan as requested, there may be a smaller amount that the company could agree to accept. This would require some change in the capital structure that OMEGA had in mind when they inquired about the loan. If the relationship is strong enough, this may be possible. However, there is also the possibility that the project may be presented to another lender.

8. How do you as a banker achieve adequate collateral security for the repayment of the requested loan if you elect to make the loan?

This is a very serious concern when lending on an international project. The answer may lie in very carefully constructed restrictive loan covenants that ensure early indicators of any future problems that may develop. In addition, other banking relationships OMEGA may have with the lender as well as compensating balances may be appropriate areas for additional consideration. Although the bank is relying on the cash flow of the borrower for repayment, it would be advantageous to have a participating bank in the country where the particular equipment/facilities are located to facilitate securing them under the laws of that nation.

EXHIBIT 1A - BALANCE SHEET (ASSETS)					
(dollar amounts in thousands)	31-Dec 2004	31-Dec 2005	31-Dec 2006	31-Dec 2007	31-Dec 2008
ASSETS					
Current Assets:					
Cash and cash equivalents	43,024	10,798	11,462	12,331	26,324
Restricted cash	815	1,151	1,108	755	5,099
Gross Receivables	24,777	44,535	87,396	121,281	135,945
Less: Allowance for bad debts	-743	-1,336	-2,622	-3,638	-4,078
Net Trade Receivables	24,034	43,199	84,775	117,643	131,867
Current notes receivable	10,426	7,797	6,053	4,554	3,943
Unbilled work in progress	0	5,284	10,896	20,677	16,187
Inventories	38,717	62,654	58,872	83,521	93,239
Prepaid expenses/other	2,677	5,765	7,894	7,124	9,194
Total Current Assets	119,693	136,649	181,059	246,606	285,852
Property, Plant, and Equipment					
Land	37	37	37	25	18
Buildings	12,730	17,257	7,578	56,978	65,231
Equipment	43,819	56,171	53,496	16,472	15,896
Total PP&E	56,586	73,465	61,111	73,475	81,145
Less: Accumulated depreciation	-36,626	-40,170	-40,146	-45,908	-54,430
Net PP&E	19,960	33,295	20,965	27,567	26,716
Non-current receivables	4,634	2,995	4,705	3,592	0
Intellectual property	0	7,248	13,734	23,911	43,155
Investments at cost	0	2,531	2,892	3,076	3,582
Goodwill	25,323	110,589	111,916	112,854	110,724
Amortizable intangible assets	0	0	0	0	0
Other intangible assets	6,583	55,999	48,679	47,939	36,532
Total Long-Term Assets	56,500	212,656	202,891	218,939	220,708
Total Assets	176,192	349,305	383,951	465,545	506,560

EXHIBIT 1B - BALANCE SHEET (LIABILITIES AND EQUITY)					
(dollar amounts in thousands)	31-Dec 2004	31-Dec 2005	31-Dec 2006	31-Dec 2007	31-Dec 2008
Current Liabilities:					
Short-term notes payable/Current portion of long-term debt	1,943	4,746	3,185	4,747	10,752
Accounts payable and accrued liabilities	20,507	51,313	61,968	81,372	100,422
Royalties payable	0	0	0	19,663	21,663
Deferred revenue	1,489	10,904	8,632	27,071	15,384
Total Current Liabilities	23,939	66,962	73,784	132,853	148,220
Long-Term Liabilities:					
Notes payable	58,710	62,143	54,909	56,061	17,867
Less: Current maturities	-1,943	-4,746	-3,185	-4,747	-10,752
Net Long-Term Debt	56,767	57,397	51,724	51,314	7,116
Deferred income tax liability	0	4,802	5,413	7,267	4,465
Other long-term Liabilities	2,757	1,943	3,138	3,317	3,033
Convertible/redeemable preferred stock	0	0	21,573	21,681	25,305
Total Long-term Liabilities	59,524	64,142	81,848	83,579	39,919
Total Liabilities	83,463	131,104	155,632	216,432	188,139
Shareholders' Equity:					
Common stock	377	575	583	586	685
Paid-in capital	212,914	346,570	351,188	355,795	403,261
Retained earnings	-117,283	-126,404	-118,611	-106,074	-84,713
Accumulated other income	934	1,686	-527	3,513	3,947
Less: Treasury stock	-4,212	-4,225	-4,315	-4,707	-4,760
Total Equity	92,729	218,201	228,319	249,113	318,421
Total Liabilities and Equity	176,193	349,306	383,951	465,545	506,560

EXHIBIT 2 - INCOME STATEMENT					
(dollar amounts in thousands)	31-Dec 2004	31-Dec 2005	31-Dec 2006	31-Dec 2007	31-Dec 2008
Sales					
Overland systems	35,796	41,166	47,341	54,443	69,839
Marine systems	29,288	35,146	42,175	50,610	67,962
Electronic data processing/communication	0	51,136	90,609	107,942	126,829
Geophones-Analog	23,864	25,057	26,310	27,626	29,007
Geophones-Digital	19,525	21,478	23,626	25,989	28,588
Analysis and interpretation	0	0	32,158	97,461	131,732
Net Sales	108,474	173,983	262,219	364,071	453,957
Cost of Goods Sold					
Overland systems	29,389	33,345	38,820	45,237	57,124
Marine systems	23,723	28,117	34,162	41,601	54,977
Electronic data processing/communication	0	30,682	57,083	68,328	79,268
Geophones-Analog	19,593	20,484	21,837	23,261	24,599
Geophones-Digital	15,640	16,753	18,932	21,130	23,045
Analysis and interpretation	0	0	20,260	61,693	79,802
Total Cost of Goods Sold	88,345	129,381	191,094	261,250	318,815
Gross Profit	20,129	44,602	71,125	102,821	135,142
Operating Expenses					
Research, development, and engineering	13,517	14,179	14,652	23,679	33,476
Marketing and sales	9,085	16,984	23,980	29,391	31,723
General and administrative	9,851	18,908	17,718	26,813	32,408
Impairment of long-lived assets	2,298	0	0	0	0
Depreciation and amortization	3,770	4,332	4,483	4,484	5,153
Less: D&A included in COGS	-1,508	-1,733	-1,793	-1,794	-2,061
Total Operating Expenses	37,013	52,671	59,040	82,573	100,699
Operating Income	-16,884	-8,068	12,085	20,248	34,444
Interest expense	-2,955	-4,505	-4,435	-4,172	-4,543
Interest income	1,376	923	609	1,475	1,336
Other income (expense), net	495	159	593	-1,562	-788
Gain (Loss) on disposal of assets	210	2,878	-72	-42	183
Income before Taxes	-17,758	-8,614	8,781	15,947	30,632
Less: Taxes Related to Operations					
Current	252	884	1,507	4,431	7,131
Deferred	0	-377	-519	-733	2,140
Income Before Minority Earnings	-18,009	-9,121	7,793	12,249	21,361
Cum. Effect of Acct Change;	0	0	0	288	0
Net Income (Loss)	-18,009	-9,121	7,793	12,537	21,361
Other Comp. Income (Loss)					
Foreign currency gain (loss)	2,655	752	-2,212	4,039	435
Total Other Comp. Income (Loss)	2,655	752	-2,212	4,039	435
Comprehensive Income (Loss)	-15,355	-8,369	5,581	16,576	21,795

EXHIBIT 3 - ABBREVIATED STATEMENT OF CASH FLOWS				
	31-Dec	31-Dec	31-Dec	31-Dec
(dollar amounts in thousands)	2005	2006	2007	2008
Cash flows from Operating Activities				
Net income	-9,121	7,793	12,537	21,361
Depreciation and amortization	4,332	4,483	4,484	5,153
(Gain) loss on sale of assets	-2,878	72	42	-183
Accumulated other income	752	-2,212	4,039	435
Changes in operating assets and liabilities				
Restricted cash	-336	43	353	-4,344
Gross Receivables	-19,758	-42,861	-33,885	-14,664
Less: Allowance for bad debts	593	1,285	1,017	440
Current notes receivable	2,629	1,744	1,499	611
Unbilled work in progress	-5,284	-5,611	-9,781	4,491
Inventories	-23,937	3,782	-24,649	-9,718
Prepaid expenses/other	-3,088	-2,129	770	-2,070
Non-current receivables	1,638	-1,710	1,113	3,592
A/P and accrued liabilities	30,806	10,655	19,405	19,050
Royalties payable	0	0	19,663	1,999
Deferred revenue	9,414	-2,272	18,439	-11,687
Deferred income tax liability	4,802	611	1,854	-2,802
Cash Provided (Used) by Operating Activities	-9,436	-26,327	16,900	11,664
Cash flows from Investing Activities				
Additions to property and equipment	-17,500	0	-15,000	-5,000
Proceeds from disposition of assets	2,710	7,775	3,872	882
Acquisition of intellectual property	-7,248	-6,486	-10,177	-19,244
Cost of other investments	-2,531	-362	-184	-506
Goodwill	-85,266	-1,327	-938	2,130
Amortizable assets, less amortization	0	0	0	0
Acquisition/disposition of other intangible assets	-49,416	7,320	740	11,407
Cash Provided (Used) by Investing Activities	-159,249	6,920	-21,687	-10,331
Cash flows from Financing Activities				
Issuance of stock	133,854	4,626	4,610	47,566
Issuance of notes payable	5,000	10,000	15,000	20,000
Repayment of notes payable	-1,567	-17,234	-13,848	-58,194
Repurchase of treasury stock	-13	-90	-393	-53
Issuance of convertible/redeemable preferred	0	21,573	108	3,624
Increase (decrease) in other long-term liabilities	-813	1,194	179	-284
Payment of dividends	0	0	0	0
Cash Provided (Used) by Financing Activities	136,460	20,070	5,657	12,659
Net cash flow	-32,225	664	869	13,992
Cash, beginning	43,024	10,798	11,462	12,331
Cash, ending	10,798	11,462	12,331	26,323

EXHIBIT 4A - COMMON SIZE BALANCE SHEET (ASSETS)						
	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec	5-Year
	2003	2004	2005	2006	2007	Average
ASSETS						
Current Assets:						
Cash and cash equivalents	24.4%	3.1%	3.0%	2.6%	5.2%	7.7%
Restricted cash	0.5%	0.3%	0.3%	0.2%	1.0%	0.4%
Gross receivables	14.1%	12.7%	22.8%	26.1%	26.8%	20.5%
Less: Allowance for bad debts	-0.4%	-0.4%	-0.7%	-0.8%	-0.8%	-0.6%
Net trade receivables	13.6%	12.4%	22.1%	25.3%	26.0%	19.9%
Current notes receivable	5.9%	2.2%	1.6%	1.0%	0.8%	2.3%
Unbilled work in progress	0.0%	1.5%	2.8%	4.4%	3.2%	2.4%
Inventories	22.0%	17.9%	15.3%	17.9%	18.4%	18.3%
Prepaid expenses/other	1.5%	1.7%	2.1%	1.5%	1.8%	1.7%
Total Current Assets	67.9%	39.1%	47.2%	53.0%	56.4%	52.7%
Property, Plant & Equipment						
Land	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Buildings	7.2%	4.9%	2.0%	12.2%	12.9%	7.9%
Equipment	24.9%	16.1%	13.9%	3.5%	3.1%	12.3%
Total Property, Plant & Equipment	32.1%	21.0%	15.9%	15.8%	16.0%	20.2%
Less: Accumulated depreciation	-20.8%	-11.5%	-10.5%	-9.9%	-10.7%	-12.7%
Net Property, Plant & Equipment	11.3%	9.5%	5.5%	5.9%	5.3%	7.5%
Non-current receivables	2.6%	0.9%	1.2%	0.8%	0.0%	1.1%
Intellectual property	0.0%	2.1%	3.6%	5.1%	8.5%	3.9%
Investments at cost	0.0%	0.7%	0.8%	0.7%	0.7%	0.6%
Goodwill	14.4%	31.7%	29.1%	24.2%	21.9%	24.3%
Amortizable intangible assets	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other intangible assets	3.7%	16.0%	12.7%	10.3%	7.2%	10.0%
Total Non-Current Assets	32.1%	60.9%	52.8%	47.0%	43.6%	47.3%
Total Assets	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

EXHIBIT 4B - COMMON SIZE BALANCE SHEET (LIABILITIES AND EQUITY)						
	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec	5-Year
	2003	2004	2005	2006	2007	Average
Current Liabilities:						
ST notes payable /Current portion of LT debt	1.1%	1.4%	0.8%	1.0%	2.1%	1.3%
A/P and accrued liabilities	11.6%	14.7%	16.1%	17.5%	19.8%	16.0%
Royalties payable	0.0%	0.0%	0.0%	4.2%	4.3%	1.7%
Deferred revenue	0.8%	3.1%	2.2%	5.8%	3.0%	3.0%
Total Current Liabilities	13.6%	19.2%	19.2%	28.5%	29.3%	22.0%
Long-Term Liabilities:						
Notes payable	33.3%	17.8%	14.3%	12.0%	3.5%	16.2%
Less: Current maturities	-1.1%	-1.4%	-0.8%	-1.0%	-2.1%	-1.3%
Net long-term debt	32.2%	16.4%	13.5%	11.0%	1.4%	14.9%
Deferred income tax liability	0.0%	1.4%	1.4%	1.6%	0.9%	1.0%
Other long-term liabilities	1.6%	0.6%	0.8%	0.7%	0.6%	0.8%
Convertible/redeemable preferred	0.0%	0.0%	5.6%	4.7%	5.0%	3.1%
Total Long-term Liabilities	33.8%	18.4%	21.3%	18.0%	7.9%	19.9%
Total Liabilities	47.4%	37.5%	40.5%	46.5%	37.1%	41.8%
Shareholders' Equity:						
Common stock	0.2%	0.2%	0.2%	0.1%	0.1%	0.2%
Paid-in capital	120.8%	99.2%	91.5%	76.4%	79.6%	93.5%
Retained earnings	-66.6%	-36.2%	-30.9%	-22.8%	-16.7%	-34.6%
Accumulated other income	0.5%	0.5%	-0.1%	0.8%	0.8%	0.5%
Less: Treasury stock	-2.4%	-1.2%	-1.1%	-1.0%	-0.9%	-1.3%
Total Equity	52.6%	62.5%	59.5%	53.5%	62.9%	58.2%
Total Liabilities and Equity	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	31-Dec 2003	31-Dec 2004	31-Dec 2005	31-Dec 2006	31-Dec 2007	5-Year Average
Sales						
Overland systems	33.0%	23.7%	18.1%	15.0%	15.4%	21.0%
Marine systems	27.0%	20.2%	16.1%	13.9%	15.0%	18.4%
Electronic data processing/communication	0.0%	29.4%	34.6%	29.6%	27.9%	24.3%
Geophones-Analog	22.0%	14.4%	10.0%	7.6%	6.4%	12.1%
Geophones-Digital	18.0%	12.3%	9.0%	7.1%	6.3%	10.6%
Analysis and interpretation	0.0%	0.0%	12.3%	26.8%	29.0%	13.6%
Net Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Goods Sold (% of category sales)						
Overland systems	82.1%	81.0%	82.0%	83.1%	81.8%	82.0%
Marine systems	81.0%	80.0%	81.0%	82.2%	80.9%	81.0%
Electronic data processing/communication		60.0%	63.0%	63.3%	62.5%	62.2%
Geophones-Analog	82.1%	81.7%	83.0%	84.2%	84.8%	83.2%
Geophones-Digital	80.1%	78.0%	80.1%	81.3%	80.6%	80.0%
Analysis and interpretation			63.0%	63.3%	60.6%	62.3%
Total Cost of Goods Sold	81.4%	74.4%	72.9%	71.8%	70.2%	74.1%
Gross Profit	18.6%	25.6%	27.1%	28.2%	29.8%	25.9%
Operating Expenses						
R & D + Engineering	12.5%	8.1%	5.6%	6.5%	7.4%	8.0%
Marketing and sales	8.4%	9.8%	9.1%	8.1%	7.0%	8.5%
General and administrative	9.1%	10.9%	6.8%	7.4%	7.1%	8.2%
Impairment of long-lived assets	2.1%	0.0%	0.0%	0.0%	0.0%	0.4%
Depreciation and amortization	3.5%	2.5%	1.7%	1.2%	1.1%	2.0%
Less: D&A included in COGS	-1.4%	-1.0%	-0.7%	-0.5%	-0.5%	-0.8%
Total Operating Expenses	34.1%	30.3%	22.5%	22.7%	22.2%	26.4%
Operating Income	-15.6%	-4.6%	4.6%	5.6%	7.6%	-0.5%
Interest expense	-2.7%	-2.6%	-1.7%	-1.1%	-1.0%	-1.8%
Interest income	1.3%	0.5%	0.2%	0.4%	0.3%	0.5%
Other Income (Expenses)	0.5%	0.1%	0.2%	-0.4%	-0.2%	0.0%
Gain (Loss) disposal of Assets	0.2%	1.7%	0.0%	0.0%	0.0%	0.4%
Income before Taxes	-16.4%	-5.0%	3.3%	4.4%	6.7%	-1.4%
Less: Taxes Related to Operations						
Current	0.2%	0.5%	0.6%	1.2%	1.6%	0.8%
Deferred	0.0%	-0.2%	-0.2%	-0.2%	0.5%	0.0%
Income Before Minority Earnings	-16.6%	-5.2%	3.0%	3.4%	4.7%	-2.2%
Cum. Effect of Acct Change;	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Net Income (Loss)	-16.6%	-5.2%	3.0%	3.4%	4.7%	-2.1%
Other Comp. Income (Loss)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Foreign currency gain (loss)	2.4%	0.4%	-0.8%	1.1%	0.1%	0.6%
Total Other Comp. Income (Loss)	2.4%	0.4%	-0.8%	1.1%	0.1%	0.6%
Comprehensive Income (Loss)	-14.2%	-4.8%	2.1%	4.6%	4.8%	-1.5%

EXHIBIT 6A - PROFORMA BALANCE SHEET (ASSETS)					
(dollar amounts in thousands)	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec
	2009	2010	2011	2012	2013
ASSETS					
Current Assets:					
Cash and cash equivalents	52,267	70,329	94,634	127,337	171,343
Restricted cash	3,066	4,126	5,551	7,470	10,051
Gross Receivables	189,837	261,346	359,793	495,322	681,904
Less: Allow. for Bad Debts	-4,190	-5,638	-7,587	-10,209	-13,736
Net Trade Receivables	185,647	255,708	352,206	485,113	668,168
Current Notes Receivable	15,653	21,063	28,342	38,136	51,315
Unbilled work in progress	16,342	21,989	29,588	39,813	53,572
Inventories	150,829	207,644	285,860	393,540	541,783
Prepaid Expenses/Other	11,685	15,723	21,157	28,468	38,306
Total Current Assets	435,489	596,582	817,338	1,119,878	1,534,537
Property, Plant, and Equip.					
Land	68	92	123	166	223
Buildings	53,514	72,008	96,892	130,376	175,432
Equipment	83,921	112,922	151,945	204,455	275,110
Total PP&E	137,503	185,022	248,960	334,997	450,765
Less: Accumulated depr.	-72,755	-94,246	-123,164	-162,075	-214,433
Net PP&E	64,748	90,776	125,796	172,922	236,332
Non-Current Receivables	7,477	10,060	13,537	18,215	24,510
Intellectual Property	49,628	57,072	65,633	75,478	86,800
Investments at Cost	4,119	4,737	5,448	6,265	7,205
Goodwill	127,332	146,432	168,397	193,657	222,706
Amortizable assets, less amortization	0	0	0	0	0
Other intangible assets	42,012	48,314	55,561	63,895	73,479
Total Non-Current Assets	295,316	357,392	434,372	530,433	651,032
Total Assets	730,805	953,974	1,251,710	1,650,310	2,185,569

EXHIBIT 6B - PROFORMA BALANCE SHEET (LIABILITIES AND EQUITY)					
(dollar amounts in thousands)	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec
	2009	2010	2011	2012	2013
Current Liabilities:					
ST Notes Pay/Curr. LT Debt	9,191	12,524	15,858	20,524	28,524
A/P and Accrued Liabilities	138,140	186,662	253,079	343,429	466,426
Royalties payable	11,588	15,592	20,981	28,231	37,987
Deferred revenue	20,540	27,638	37,189	50,040	67,333
Total Current Liabilities	179,458	242,416	327,106	442,224	600,270
Long-Term Liabilities:					
Notes Payable	137,867	187,867	237,867	307,867	427,867
Less: Current Maturities	-9,191	-12,524	-15,858	-20,524	-28,524
Net Long-Term Debt	128,676	175,343	222,009	287,343	399,343
Deferred income tax liability	4,465	4,465	4,465	4,465	4,465
Other Long-term Liabilities	5,793	7,795	10,489	14,114	18,991
Conv./redeemable preferred	26,305	28,013	37,693	50,719	68,247
Total Long-term Liabilities	165,240	215,616	274,657	356,641	491,046
Total Liabilities	344,698	458,032	601,763	798,866	1,091,316
Shareholders' Equity:					
Common stock	800	1,200	1,400	1,600	1,800
Paid-in capital	446,672	511,725	592,714	693,321	800,038
Retained earnings	-60,553	-16,171	56,646	157,336	293,227
Accumulated other income	3,947	3,947	3,947	3,947	3,947
Less: Treasury stock	-4,760	-4,760	-4,760	-4,760	-4,760
Total Equity	386,106	495,941	649,947	851,445	1,094,253
Total Liabilities and Equity	730,804	953,974	1,251,710	1,650,310	2,185,570

EXHIBIT 7 - PROFORMA INCOME STATEMENT					
(dollar amounts in thousands)	31-Dec 2009	31-Dec 2010	31-Dec 2011	31-Dec 2012	31-Dec 2013
Sales					
Overland systems	96,146	132,363	182,223	250,864	345,362
Marine systems	93,563	128,807	177,327	244,124	336,083
Electronic data processing/communication	174,604	240,375	330,921	455,575	627,185
Geophones-Analog	39,934	54,977	75,686	104,196	143,445
Geophones-Digital	39,357	54,182	74,592	102,690	141,372
Analysis and interpretation	181,354	249,668	343,715	473,188	651,432
Net Sales	624,958	860,372	1,184,464	1,630,637	2,244,879
Cost of Goods Sold					
Overland systems	79,092	108,884	149,900	206,365	284,101
Marine systems	76,098	104,763	144,225	198,553	273,346
Electronic data processing/communication	109,834	151,207	208,165	286,578	394,529
Geophones-Analog	33,557	46,197	63,599	87,556	120,537
Geophones-Digital	31,759	43,722	60,192	82,866	114,080
Analysis and interpretation	112,243	154,524	212,731	292,864	403,182
Total Cost of Goods Sold	442,583	609,297	838,812	1,154,782	1,589,775
Gross Profit	182,375	251,075	345,652	475,855	655,104
Operating Expenses					
R & D + Engineering	42,739	54,564	69,661	88,935	113,542
Marketing and sales	40,500	51,706	66,012	84,277	107,595
General and administrative	41,374	52,822	67,437	86,096	109,918
Impairment of long-lived assets	0	0	0	0	0
Depreciation and amortization	18,325	21,491	28,918	38,911	52,358
Less: D&A included in COGS	-7,330	-8,596	-11,567	-15,564	-20,943
Total Operating Expenses	135,608	171,987	220,461	282,655	362,470
Operating Income	46,767	79,088	125,191	193,200	292,634
Interest expense	-11,379	-15,506	-19,633	-25,411	-35,316
Interest income	1,781	4,699	6,468	8,905	12,259
Other Income (Expenses)	0	0	0	0	0
Gain (Loss) disposal of Assets	0	0	0	0	0
Income before Taxes	37,169	68,280	112,026	176,694	269,578
Less: Ops-related Tax					
Current	13,009	23,898	39,209	61,843	94,352
Deferred	0	0	0	0	0
Inc. Before Minority Earnings	24,160	44,382	72,817	114,851	175,226
Cum. Effect of Acct Change;	0	0	0	0	0
Net Income (Loss)	24,160	44,382	72,817	114,851	175,226
Other Comp. Income (Loss)					
Foreign currency gain (loss)	0	0	0	0	0
Total Other Comp. Inc. (Loss)	0	0	0	0	0
Comprehensive Income (Loss)	24,160	44,382	72,817	114,851	175,226

LEHMAN TRIKES: A STORY WITHIN A STORY

Donald C. Looney, Black Hills State University

Annette Ryerson, Black Hill State University

CASE DESCRIPTION

The primary subject matter of this case is strategic alliances. Secondary issues include business strategy, entrepreneurship and marketing. The case explores the dynamics of an alliance between Harley-Davidson and a small, entrepreneurial, niche market company, Lehman Trikes. The case is appropriate for senior level four undergraduate courses or level five graduate classes. The case may be taught in two class hours with 1-2 hours of outside student preparation.

CASE SYNOPSIS

This case analyzes the strategic alliance between Lehman Trikes, a small but rapidly growing leading manufacturer of three-wheeled motorcycles, and Harley-Davidson. The case also examines the strategies chosen by Lehman and Harley to implement the alliance, and simultaneously deal with the worldwide recession of 2008-2009. Lehman Trikes, located in Spearfish, South Dakota, is a publicly owned company trading on the TSX Canadian Venture Exchange. As the world was in the midst of a crippling recession, on July 22, 2008, Harley-Davidson unveiled the new Tri Glide three-wheeled motorcycle at the annual dealer meeting in Las Vegas. At the same meeting, Harley announced that Lehman Trikes would be the exclusive supplier to Harley-Davidson of the Tri Glide. Ron Hutchinson, senior vice president of product development for Harley-Davidson said, "This is a big deal. The three-wheeled market is a market that we believe has been effectively underserved because it has been done in the aftermarket." While the entrance of Harley-Davidson into the trike market would obviously legitimize and add enormous growth opportunities for the three-wheel segment of the motorcycle market, would it profoundly change Lehman's environment and business model? Dan Patterson, then CEO of Lehman Trikes, would later cryptically write of the event in the 2008 Third Quarter Report, "We are truly pleased to have Harley-Davidson as both a competitor and a business associate". Did this somewhat obscure statement reflect his concerns about the new supply agreement? With the active participation of Harley-Davidson in the trike market, would the three-wheeled motorcycle market emerge from a niche market status to become a primary market and entice the market leaders to introduce complete and competitive trike products? Would Lehman Trikes, "The Leader of the Three World," remain able to dominate the trike market? How would Lehman's strategic supply agreement with Harley-Davidson evolve, and will their long term goals be consistent?

In analyzing the case students should focus on several key questions. Would the alliance between Lehman and Harley-Davidson meet both of their strategic goals and what were the benefits to each organization of the alliance? What were the risks a small organization like

Lehman was taking in entering an agreement with a much larger partner versus the rewards they hoped to gain? Was Harley fair in their dealings with Lehman or did they take advantage of their much smaller partner? Historically, Harley limited supply of new product launches. In the midst of a recession, was this the best marketing strategy? And finally, how viable was Lehman's business model?

INSTRUCTOR'S NOTES RECOMMENDATIONS FOR TEACHING APPROACHES

The Lehman Trikes case should be appealing to most business students because of the popularity of Harley-Davidson and the unusual alliance with a small entrepreneurial, niche market company, Lehman Trikes. The instructor is provided with a case that is exciting to the student, yet teaches management strategy, marketing and entrepreneurship. Instructors will find that many of the students are familiar with Harley-Davidson or have aspirations to own one of their motorcycles. The uniqueness of the trike market and the success of a start up like Lehman Trikes should also provide a level of interest from the students. Discussing Lehman Trikes and their agreement with Harley-Davidson should generate a lively discussion amongst students about the two companies' strategies. The Lehman Trikes case provides sufficient financials, thereby giving students the opportunity to practice financial ratio analysis and assess Lehman's and Harley's financial strength. The class discussion can begin with an analysis of the case, followed by a discussion of both companies' strategies. Students should analyze and discuss the relevant questions in the final Epilogue section and conclude with recommendations for each company going forward. Instructors may want to use the following questions to initiate a discussion.

1. Did Harley-Davidson and Lehman Trikes develop what appeared to be a successful strategic alliance which met both of their initial goals?

Students will probably recognize that Harley-Davidson saw the potential of the trike market having a history with the Servi-car and having developed a relationship with Lehman's management. They should also recognize that the supply agreement with Lehman represented a low risk entry into the trike market with minimal investment. By outsourcing the assembly of the Tri Glide line to Lehman, Harley also avoided an expensive and possibly contentious production start-up in their own union factories with a history of union problems. The volume was relatively so low at this stage that it was no doubt cheaper for Harley to have Lehman assemble the trikes than to do so internally. Harley must have been pleased with the relationship as they developed and launched the new Street Glide model for 2010 on the one year anniversary of the agreement. As long as Lehman continued to meet their production quotas for the Tri Glide, Harley should have been satisfied.

For Lehman Trikes, the alliance with Harley has to be seen as fortuitous timing. At a critical stage in the company's history, the agreement satisfied a number of goals. The volume of the Tri Glides was significant and provided Lehman with a critical mass of sales at a time of recession when the non-Harley side of the business was hurting. The alliance with Harley gave Lehman immediate credibility and legitimized the trike market. Harley owners who may have

been interested in a trike but wanted the Harley brand and warranty were a prime target market. Harley's marketing and distribution clout opened up the U.S. dealer network of 684 dealers, the majority of which never carried the Lehman line. With two Harley employees on site at Lehman, Lehman gained from increased knowledge of product design and production systems design.

2. Discuss the benefits to each organization from the strategic alliance.

An option for this question would be to have the instructor divide the class in half and have one side represent Harley-Davidson and the other Lehman Trikes. Writing the benefits on the board can also help assist in answering question three. The goal is to determine if one organization benefits over another or at the expense of the other.

Lehman Trikes benefits: An organization with basically no name recognition was partnering with a prominent name brand like Harley-Davidson. After a thorough examination of the trike market, Harley selected Lehman to manufacture their trikes. Lehman does not have the benefit of having their name on the final Tri-glide product, yet their workmanship is evident in the quality of the product. Lehman has proven their ability to work with a major motorcycle manufacturer, thereby proving to other potential partners that they are capable. To date, their professionalism and manufacturing capabilities have not disappointed Harley. Nonetheless, having settled with their unions, Harley chose to discontinue the alliance, perhaps as a bone to the unions who had given up so much.

Harley-Davidson benefits: Harley-Davidson deepened their product line by offering the Tri Glide to new riders or existing Harley riders. Their strategy falls between a line extension strategy and a brand extension strategy. They are in the same market with a trike, yet they are expanding beyond the two-wheeled motorcycle market. The transition to a Tri Glide can be smooth for those Harley riders who feel they need more stability than their current motorcycle offers. The Harley name on the Tri-Glide has minimized the need for additional product search in the trike market. Loyal customers trust Harley products and will make the switch more easily. Harley also benefited by signing only a one year contract with Lehman. Harley did not make a manufacturing investment for the production of the Tri-Glide. They signed for one year at a time with Lehman, thereby minimizing their risk. Harley also benefited because of the lower cost of labor in South Dakota and the lack of unionization. These are issues that Harley had been dealing with in Wisconsin. Partnering with a non union business that can provide the product at an affordable price also gave Harley-Davidson more pricing flexibility.

3. What risks do smaller organizations like Lehman take when agreeing to partner with larger organizations such as Harley Davidson? (Comes from the Epilogue section)

Instructors should give the students the opportunity to brainstorm on this question. Students should consider the size and demographic profile of the Spearfish, SD community. The purpose of this exercise is to give the students the opportunity to realize that partnership with a larger organization does not come without limitations or risks. Harley-Davidson had signed a one year contract with Lehman. Lehman was taking a risk with regard to enhancing their manufacturing and personnel for essentially a one year contract. The risk was that Lehman prepared for the expansion in production and before they could pay off their expansion while Harley-Davidson had the option not to renew the contract. Being a smaller company, which

became more dependent upon the ‘Harley side’ of the business, Lehman had become more vulnerable.

Lehman also manufactured a product for Harley that had no name recognition for them. Lehman is known among trike enthusiasts as a quality product, yet they are contracting with Harley and receiving no name recognition in front of the customers. Lehman could have been cannibalizing their own future trike market by producing for Harley and not receiving the benefit in front of the customer.

Being in a smaller community like Spearfish, SD the opportunities to hire qualified individuals are limited. Also, with the contract not renewed Lehman faces the threat of having to lay off workers. In a small community, an organization can lose respect among the community for hiring and firing too frequently.

The discussion should lead into two questions that deal with the future of Lehman and Harley, such as; “Would a logical next step have been for Harley be to acquire Lehman?” and “Why did Harley consider producing their own trike?”

Clearly Harley could have acquired Lehman. However, Harley’s new management was in a divestiture mode not an acquisition mode. As part of their “go-forward” business strategy Harley’s new management had decided to focus on the Harley brand and therefore decided to divest the MV Augusta business and discontinue the Buell line. Also the acquisition of Lehman may have caused considerable problems to the union agreement they would have been negotiating at a time when considering the future of their trike business. Part of the union’s concessions was to severely limit the number of job classification in the York factory from sixty down to only five classifications. This would have given Harley’s production management a lot more flexibility in creating assembly teams for their trike.

4. Did Harley do the fair and right thing in terminating the Lehman supply agreement?

The Epilogue leaves Lehman in a difficult situation with the future loss of over half their business by the end of the summer 2010. This may lead students to a discussion of the ethical and fairness issues in the case. The Agreement Lehman signed with Harley was for a yearly contract for the supply of Lehman assembled trikes. Harley owned the brand name Tri-glide, the Harley design and specifications with no residual rights granted to Lehman. Termination (or really nonrenewal) of the contract was perfectly within their legal rights. Lehman knew the risks from the beginning and throughout the contract. Nonrenewal was cited as Lehman’s CEO’s biggest fear. Lehman obviously thought that the legitimization of the trike market, the name recognition they gained as a result of the alliance with Harley, and the sheer volume increase they gained during a major recession was worth the risk. It is the opinion of the authors that Lehman probably would not have survived the recession without the Harley business. Harley was upfront and transparent at all stages of their dealings with Lehman. Harley made a pure business decision which was predictable given the success of the Tri-glide and the major renegotiation of the union contract. And for Lehman it’s not really a zero sum game. They still have gained the legitimacy of not only the trike market but also Lehman as a brand that Harley chose and trusted to build their initial trikes. While Lehman will no doubt have to reduce their

workforce, with the economy improving and consumer confidence returning, they are positioned to survive, a little bruised, but viable.

5. With the strategy of limiting the supply of Tri-glides to the market, was this the best strategy for Harley-Davidson to pursue during these challenging economic times?

A class discussion can be geared toward brand equity and the strategy of limiting product supply. Harley-Davidson has been successful in achieving brand equity. They have progressed through the steps of developing brand awareness, creating strong and favorable brand associations, having positive consumer judgments and finally retaining intense loyalty on the part of consumer brand resonance. With brand equity being achieved, Harley-Davidson stood to be successful with a limited supply offering of the Tri-Glide. Consumers who have had a positive experience with Harley-Davidson will transfer those feelings to other Harley-Davidson products, and ultimately to the Tri-Glide. One of the unique qualities of Harley-Davidson is that they have been successful in limiting the supply of their products in the past. Customers are typically willing to wait to get the Harley-Davidson product they want.

With the decrease in sales of motorcycles averaging 35% in 2009, concern existed as to whether there would be an over abundance of new and used products on the market. With this oversupply of motorcycles, the oversupply of trikes could soon follow.

6. Was Lehman's business model of selling into four segments a viable model or could it have been strengthened?

Before the announcement of Harley terminating the agreement, students will recognize that the revenue growth of 48% in a recession year and a return to profitability certainly indicate a viable model. The model was also low investment with a sales to asset ratio less than three to one. But the weakness of the model was that the only value added by Lehman was assembly of outsourced components and painting. This was easily duplicated by Harley when they decided the market was right for the trike and they got concessions from their unions for the required flexibility in production. The other concern that Lehman realized when entering into the Agreement with Harley was the huge market potential of Harley's 684 dealers and the cache of the Harley brand, but the downside was the risk of becoming overly dependent upon the Harley side of the business. An interesting class discussion on the risks of entrepreneurship should ensue around the basic question of whether Lehman pursued the right strategy in entering into an agreement with Harley or was the risk of becoming overly dependent and eventually losing the business worthwhile. Entering into similar agreements with other major motorcycle manufacturers would have lessened the risk, but Lehman tried to no avail.

ETHICAL ISSUES IN PROFESSIONAL TAX PRACTICE

Richard Powell, Pepperdine University

Cynthia E. Bolt-Lee, The Citadel

CASE DESCRIPTION

The primary subject matter of this case concerns the pressure placed upon today's tax professional by both the client and the firm to minimize tax liabilities through aggressive tax positions. Secondary issues include the competitive environment of professional tax practice, incentives to maximize revenue by retaining old and recruiting new clients, challenges facing the entry-level tax professional, and compliance with Circular 230 and the AICPA's Statement on Standards for Tax Service (SSTS). The case is appropriate for all introductory level tax students at both the undergraduate and graduate level and has a difficulty level of five: appropriate for first year graduate students. The case is designed to be taught in one class period and should require approximately three hours of outside preparation by students.

CASE SYNOPSIS

Students are placed in the role of inexperienced tax practitioners who must deal with aggressive clients wanting to minimize their tax liability. The student must analyze several tax issues, determine the appropriate tax treatment, and address the technical and ethical limits on the tax positions a CPA can take. Students must address numerous sanctions including penalties, malpractice claims, expulsion from the AICPA, loss of a CPA license, and even imprisonment.

As a recent college graduate with an accounting degree, a CPA license, and membership in the AICPA, the student, in a role play, is a recent hire at a regional CPA firm, Burst and Packend. The CPA has spent two years mostly in auditing, has obtained the experience necessary for licensing, but has decided to move into the tax department for a trial run. It is March 2009 and the CPA is meeting, for the first time, John and Mary Smith, who are coming in for an appointment to discuss their return. The supervising partner encourages development of an excellent relationship with the Smiths because they have been good clients who have paid high fees over the years. An audit manager, called upon to help during last year's heavy tax season, prepared their 2007 tax return. The Smiths tend to be aggressive in seeking deductions and minimizing their tax liabilities. They have dropped off various tax documents for review prior to their appointment.

INSTRUCTORS' NOTES RECOMMENDATIONS FOR TEACHING APPROACHES

CPA tax practitioners operate in a highly competitive environment. When employed in aggressive firms, they face strong incentives to maximize professional revenue. They may

confront immense pressure to retain old clients and recruit new ones. At times, these clients may demand that their CPAs utilize aggressive tax positions to minimize tax liabilities. But there are technical and ethical limits on the tax positions a CPA can take. The CPA who oversteps these limits can suffer numerous sanctions including penalties, malpractice claims, expulsion from the AICPA, loss of a CPA license, and even imprisonment.

Recent problems related to aggressive tax shelters illustrate the prevalence of these pressures and sanctions (Kahn, 2003; Halper, 2005.) Large accounting firms have suffered penalties for providing overzealous tax advice. Some tax preparers feel pressured to provide aggressive tax advice because their clients are aware of the low percentage of tax returns subjected to audit. But if tax preparers permit even minor violations of tax law, they can create an atmosphere that is desensitized to unethical conduct.

The market for tax advice is large. Yetmar and Rioux (2004) report estimated expenditures of \$11 billion for professional tax advice in 2002 with 62% of returns receiving professional advice. Their research also reports that approximately one-fourth of all preparers will be assessed a preparer penalty during their careers.

The tax profession has recognized the need for sensitivity to ethics issues. A study of senior level members of the AICPA found that 47% considered their most difficult ethical issue to be “client proposals of tax alteration and tax fraud” (Finn, Chonko & Hunt, 1988.) According to a 1997 survey of members of the AICPA Tax Division, personal moral values and standards, followed by the firm culture and management philosophy, were of greater help to the tax professional in ethical dealings than professional guidelines, although to some extent the fear of losing licensure did affect work-related ethics (Yetmar, Cooper & Frank, 1999.)

In response to a need for effective ethical guidelines, the AICPA adopted new tax practice standards in 2000. The Statements on Standards for Tax Services (SSTS) replaced the more advisory Statement on Responsibilities in Tax Practice. Preface #1 of the SSTS states:

“Practice standards are the hallmark of calling one’s self a professional. Members should fulfill their responsibilities as professionals by instituting and maintaining standards against which their professional performance can be measured. Compliance with professional standards of tax practice also confirms the public’s awareness of the professionalism that is associated with CPAs as well as the AICPA.”

Ethics instruction should be an essential component of today’s tax curriculum, yet it is often overlooked (Grasso & Kaplan, 1998; Finn et al 1988.) Ethics cases are common in the audit and assurance services area, but there is a strong need for ethics cases in tax (Grasso and Kaplan, 1998; Hite & Hasseldine, 2001.)

In addition to the prevalence of ethical issues in the tax setting, ethics issues are commonplace in the general business setting, leading to a call for better ethics education in business schools. The AACSB has gathered numerous articles on ethics education at its ethics education resource center with many of these articles containing relevance for the taxation classroom. The report of the Ethics Education Task Force of AACSB International (2004) stresses this ideal in their introduction: “This report is based on the premise that the time has come for business schools – supported by AACSB – to renew and revitalize their commitment to the centrality of ethical responsibility at both the individual and corporate levels in preparing business leaders for the twenty-first century.” (p.9) The Task Force emphasizes that business

schools must encourage students to develop a better understanding of ethical issues, provide them with tools for recognizing ethical issues, and engage them through analyses of business examples. They further write, “Students especially need to be exposed to cases and types of ethical issues that they are likely to face in the business world.” (p.13)

This teaching case responds to this AACSB recommendation. In this case, students are placed in the role of inexperienced tax practitioners who must deal with two aggressive clients wanting to minimize their tax liability. The students must analyze several tax issues, determine the appropriate tax treatment, and address the ethical ramifications given the most recent IRS and AICPA rulings. The purpose of the case is to improve the student’s ability to deal with technical and ethical issues that can typically arise early in the career of a tax professional and to understand the often tenuous client-practitioner relationship. Educators can use the case in the middle or late stages of an introductory taxation course.

DISCUSSION QUESTIONS

- 1. What are the individual tax issues in this case? List each issue individually, state your position on each issue, and indicate, by general citation, the law that addresses the issue.**

The Smiths have presented numerous tax issues. For 2007, they have neglected to report income from gambling and bartering and they have inappropriately taken several deductions. Several of the issues are repeating in 2008.

For 2007, the Smiths deducted Mary’s tuition as an itemized deduction. Because their adjusted gross income exceeded the limits for the limited education deduction under IRC Section 222 or for any education credits, the only possible deduction for education expenses was under Section 162.

Generally, under section 162, an employee can deduct expenses incurred for education as ordinary and necessary business expenses provided the expenses are for either of two reasons: 1) to maintain or improve existing skills required in the present job; or 2) to meet the express requirements of the employer or the requirements imposed by law to retain his or her employment status. Education expenses are not deductible if they are to meet the minimum educational standards for qualification in the taxpayer’s existing job or to qualify the taxpayer for a new trade or business. Because Mary’s completion of a law degree qualifies her for a new trade or business, her law school tuition was not deductible even if she can demonstrate the courses improve her skills as a marketing executive.

As an AICPA member who is now aware of an error in the 2007 return, you must advise the taxpayers promptly that an error has occurred. (SSTS No. 6) A similar obligation exists under IRS Circular 230. Your advice should include a recommendation for appropriate measures the taxpayer should take regarding their prior year return. In this instance the taxpayers should notify the IRS, file an amended return, and pay any tax liability. However, you are not obligated to inform the IRS of the situation nor may you do so without the permission of the taxpayers, except as provided by law. If the Smiths want you to prepare the 2008 return but have not taken action to correct the 2007 return, you should consider whether to continue your

professional relationship or withdraw from the engagement. If you prepare the 2008 return, you should ensure that the error is not repeated.

The Smiths have taken a deduction for John's home office. Under IRC Section 280A, employees and self-employed individuals are not allowed a deduction for a home office unless the office is used exclusively on a regular basis as either of the following: 1) the principal place of business for the taxpayer; or 2) a place of business used by clients, patients, or customers. Employees must also show that the use is for the convenience of the employer rather than being merely helpful. The principal place of business must be used to conduct administrative or management activities and there must be no other fixed location of the trade or business where the taxpayer conducts these activities.

John cannot take deductions for home office expenses. As an employee, he cannot show that the home office is for the convenience of the employer. In addition, he has a campus office available for preparing his academic research. Also, the personal items such as the home computer and the pullout sofa violate the rule requiring exclusive business use of the office. As discussed above with respect to the law school tuition, you must now take action to alert the taxpayers to the error in the 2007 return and ensure that the error does not repeat on the 2008 return.

John can deduct the cost of paints and other supplies as ordinary and necessary business expenses under Section 162. He can allocate the cost of the camera between business and personal use and deduct the business portion. If John can verify that the travel to study abroad was necessary for his business and any pleasure associated with the trip was incidental, then he can deduct the business travel costs as ordinary and necessary under Section 162.

On the 2007 return, Mary has taken a deduction for mileage in connection with her work. An employee like Mary may deduct unreimbursed employment-related transportation expenses as an itemized deduction from AGI. The burden is on the taxpayer to keep records to support the deduction. (IRC Section 162, 274, and the Cohan rule)

In this instance, Mary is not keeping contemporaneous records of her business mileage and is instead making a year-end estimate. The deduction is therefore invalid.

John Smith has delivered paintings to his neighbor, Brian Westbrook, in return for free daycare services. John believes he has no income from the transactions. But such barter transactions trigger income recognition despite the absence of cash payment. John should be recognizing income equal to the fair market value of the service provided. The Smiths had gambling winnings in 2007 and gambling losses in 2008. Under IRC Section 61, the winnings in 2007 are income and should have been reported on the 2007 tax return. Again, you must alert the taxpayers to the error.

As for the gambling losses in 2008, they can be itemized deductions up to the amount of gambling winnings. (IRC Section 165) The conference cost of \$1,800 is not taxable since John attended an academic conference while in Las Vegas.

The CPA firm has placed an ad saying, "We win when the IRS audits our clients. For peace of mind, come to Burst and Packend." This ad is an ethics violation. A CPA must not seek clients through false, misleading, or deceptive advertising (Rule 502 of the AICPA Code of Professional Conduct).

John Smith would like to arrange for a contingent fee equal to 20% of the refund for 2008. Such an arrangement would be an ethics violation. Tax practitioners are prohibited from charging contingent fees on an original tax return. (Section 10.27 of Circular 230 and Rule 302 of the AICPA Code of Professional Conduct)

The CPA firm's ethics policy should be examined. If an ethics policy is not established at the firm, one should be developed to ensure that firm members are aware of the ethical responsibilities associated with their practice. Undoubtedly, the prior year's return should be amended. The client should be notified, preferably in writing, of the firm's policy for amending returns.

You should inform your supervisor of the errors in 2007 so that the prior year preparer, if still employed with the firm, can be advised and given the opportunity to make appropriate corrections. The possibility exists that the prior year's preparer was not given full information in 2007 or did not ask the appropriate questions regarding income and deductions. Should your supervisor take the position that a 2007 amended return is not necessary due to the possibility of losing the Smiths as a client, you need to examine your personal ethical responsibilities and whether you should continue your employment at the firm.

2. What ethics regulations apply to the tax preparers in this case?

Tax preparers are subject to various statutes, rules, and codes of professional conduct. Raabe, Whittenburg and Sanders (2003) summarize a complex regulatory environment for tax preparers.

All tax practitioners are subject to IRS Circular 230: Regulations Governing the Practice of Attorneys, Certified Public Accountants, Enrolled Agents, Enrolled Actuaries, and Appraisers before the Internal Revenue Service, updated in April 2008 to address ethical practice guidelines for practitioners. The Internal Revenue Code specifies numerous penalties and rules that apply to all tax practitioners. In addition, CPAs who are members of the American Institute of Certified Public Accountants (AICPA) must comply with its Code of Professional Conduct and other rules created by state boards of accountancy. The AICPA's Statements on Standards for Tax Services (SSTS) provide guidelines for member CPAs who prepare tax returns which are very similar to Circular 230 and include sanctions as well.

To enforce taxpayer compliance, Congress has enacted penalties. Criminal penalties can include imprisonment. Civil penalties are of two types: ad valorem penalties and assessable penalties. Ad valorem penalties are additions to tax that are based on a percentage of the delinquent tax. Assessable penalties typically are a flat dollar amount. Civil penalties are imposed when tax statutes are violated without reasonable cause, as a result of negligence or intentional disregard of rules, or through willful disobedience or fraud. Civil penalties can arise for failure to file a tax return, failure to pay tax, failure to pay estimated income taxes, negligent understatement of income tax, substantial understatement of the tax liability, and other instances.

An accuracy related penalty, based on negligent or substantial understatement of income tax liability, amounts to 20 percent of the portion of the tax attributable to negligence or substantial understatement of tax. The penalty applies only if the taxpayer fails to show either a reasonable cause for the underpayment or a good-faith effort to comply with the tax law.

Negligence can include the failure to report gross income, the overstatement of deductions, and the failure to keep adequate records. For IRS fiscal year 2007, civil penalties for negligence (pre-abatement) related to individual income tax filings totaled almost \$15 billion; fraud penalties (pre-abatement) totaled over \$122 million.

Under Section 10.34 of Circular 230, tax practitioners must not sign tax returns if they determine that a position taken on the return does not have a realistic possibility of being sustained if challenged by the IRS unless the position is not frivolous and is accompanied by adequate disclosure. The position needs “a confidence level of at least more likely than not” – essentially a greater than 50% chance. A fairly similar “realistic possibility” standard applies under SSTS No. 1, stating that the AICPA member must have a “good faith belief that the tax return position being recommended has a realistic possibility of being sustained administratively or judicially on its merits, if challenged.” In addition, Rule 501 of the AICPA Code of Professional Conduct states that a CPA must not sign a false document.

EXHIBIT 1 SUMMARY OF ISSUES	
ISSUES	REFERENCE
Tuition Deduction for Law School	IRC Section 162
Home Office Deduction	IRC Section 280A
Transportation Expenses	IRC Section 162
Substantiation of Transportation Expenses	IRC Section 274
Receipt of Taxable Income from Bartering	Treasury Regulation Sec. 1.162
Taxability of Gambling Winnings	IRC Section 61(a) U.S. v Manley S. Sullivan, 6 AFTR 6753, 1 USTC PP 3236 (USSC, 1927)
Deduction of Gambling Losses	IRC Section 165
Advertising	Rule 502 of the AICPA Code of Professional Conduct
Contingent fees	AICPA Code of Conduct: Rule 302 and IRS Circular 230

EPILOGUE

In this teaching case, students are placed in the role of inexperienced tax practitioners who must deal with two aggressive clients who want to minimize their tax liabilities. The students must analyze several tax issues, determine the appropriate tax treatment for each issue, and identify ethical issues. The purpose of the case is to improve the student’s ability to deal with technical and ethical issues that can typically arise early in the career of a tax professional.

The students have a supervisor who encourages them to have an excellent relationship with these long-time clients. Unfortunately, the clients’ 2007 tax return contains underreported taxable income and improper deductions. As a consequence, the clients need to contact the IRS, report the errors, and pay additional tax. The preparer of the 2007 return must determine if the errors were made based upon incomplete information or were in fact professional mistakes that must be corrected for the client at no cost for preparation. Often, when CPA firms discover professional mistakes, they will pay for related penalties but not for the additional tax and interest. The clients may be unhappy and complain to the supervisor. But, despite the wishes of the clients, there are technical and ethical limits on the tax positions a CPA can take. The CPAs

who overstep these limits can suffer numerous sanctions including penalties, malpractice claims, expulsion from the AICPA, loss of a CPA license, and even imprisonment.

If conflict arises with the clients due to professional mistakes in the prior tax return and the denial of deductions for the current return, the CPA can try to minimize the stress by maintaining a highly professional approach. The CPA can carefully explain the nature of each problem, the rules that apply, and the required actions for both tax returns. The explanations can show how careful compliance with tax law is mutually beneficial to both the clients and the CPA.

A CPA can avoid many of these problems by carefully evaluating a CPA firm prior to accepting a job offer. It can be important to avoid employment at a firm that has a reputation for mistakes, ethical lapses, and conflicts with clients.

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APPLE INC.: PRODUCT PORTFOLIO ANALYSIS

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CASE DESCRIPTION

The primary issue in this case involves assessing a company's product line mix relative to two marketing environmental factors and exploring four product line growth strategies using a product portfolio analysis approach. The case provides a history of the Apple Computer Company and overviews its key product lines. An approach to analyzing a company's product portfolio is reviewed and applied to Apple's product lines. Students will be able to see how each Apple product line fits within the portfolio analysis tool and will be asked questions relative to possible strategies for Apple's product portfolio. The case has a difficulty level 2 and is designed to be covered within one (75 minute) class period. The required preparation time is about 2 hours. It is appropriate for marketing principles, marketing strategy, and strategic management classes. The purpose of this case is to illustrate to students one approach to making decisions about a company's line of products and also to stimulate critical thinking in terms of future direction for a company product portfolio.

CASE SYNOPSIS

The Apple Computer Company is arguably one of the most innovative technology companies to emerge in the last three decades. Apple, Inc. is responsible for bringing to market such products as the Macintosh desktop and portable computer, iPod and iTunes, and most recently, the iPhone. The success of the company can be traced to the ingenuity of their founder and CEO, Steven Jobs. This philosophy has always been to create products that consumers will find easy to use and marry innovative technology to work productivity and personal entertainment. Throughout its history, Apple Inc. has accomplished these goals. However, with a growing line of products, a competitive market landscape, and an unpredictable technology lifecycle curve, the company faces challenges as to how to decide which product lines to hold, build, harvest cash, or divest. This case overviews a tool used to analyze a company's product line portfolio and applies it to Apple Inc.'s array of products. Questions for discussion are provided to enable students to use critical thinking skills in applying the case material.

INSTRUCTOR NOTES

CASE OVERVIEW AND RECOMMENDATIONS FOR TEACHING APPROACHES

Students will find the case very interesting and relevant as most of them will have used at least one of Apple's products or a similar product offered by an Apple competitor. Students will combine the facts presented in the case with their own perceptions and experiences with Apple's products to answer the discussion questions. The case enables students to analyze some basic

financial data (e.g., company market share and industry demand forecasts) to identify how each of the Apple product lines (reviewed in the case) fit and are classified within the BCG growth-share matrix (also reviewed in the case). Case discussion questions will then allow the student to identify other marketing factors (e.g., competitor, demand, trends, etc.) that could cause Apple products to be reclassified. The case promotes critical and strategic thinking in that students will be required to make judgments as to how they would decide the future of such Apple products as lines of personal computers, iPod, and iPhone. A unique aspect of this case is that Apple products are so ubiquitous that most students will have experienced the technological innovativeness of the company through personal ownership of an Apple product (or a similar competing company product). This aspect should make the case both relevant and interesting to students.

An approach for teaching this case could require students to read and prepare responses to the case discussion questions via a homework assignment and the class period could be devoted to an instructor led discussion of all of the questions. An alternative approach may include dividing the class into teams or small groups. Each group could address the following discussion questions relative to one Apple product line (e.g., group 1 = iMAC desktop computer, group 2 = iBook portable computer, group 3 = iPod, group 4 = iPhone). Class time could be divided to allow discussion of the questions (within the groups) followed by an instructor facilitated “readout” from each group or group representative. This would allow all students in the class to reap the benefits from the individual group discussions and offer additional comment or insight.

DISCUSSION QUESTIONS WITH SUGGESTED ANSWERS

1. ***How would you classify each of the Apple product lines (desktop computers, portable computers, iPod, and iPhone) according to the BCG Growth-Share Matrix (star, question-mark, cash-cow, or dog). Justify why you placed each product line in its class.***

The BCG Growth/Share matrix is a product portfolio analysis tool that enables firms to classify all of their product lines in a 2 x 2 matrix according to the dimensions; relative market share and market growth rate.

The dimension of relative market share (horizontal axis) is defined by the product line’s market share as compared to its *largest* competitor in the industry. Market growth rate (vertical axis) is a measure of how attractive a particular market is to the firm and is quantified by the annual growth rate (usually expressed as percent growth) for that product line. Given the estimates of relative market share (low-high) and its market growth rate (low-high), a product line can be categorized in one of the four cells illustratively named for the amount of resources generated from and requires from the firm (Grewal and Levy 2010).

Using the data from the tables provided in the case (see Exhibits 2 and 3 below), the Apple product lines can be classified as: desktop computers – dog, portable computers – question mark, iPhone – question mark, iPod – cash cow (see Figure 1 below).

Figure 1: Apple Inc. Product Lines as illustrated using the Boston Consulting Group - Growth Share Matrix Tool.

Market Growth Rate	Relative Market Share	
	High	Low
High	Star High growth and share Profit potential May need heavy investment to hold/sustain position	Question Mark High growth, low share Build into stars or phase out Requires cash to hold
Low	Cash Cow Low growth, high share Established and successful product line Source of harvesting cash for other product lines	Dog Low growth and share Low profit potential Consider divesting product line

 iPod
 iPhone
 iMAC Portable Computers
 iMAC Desktop Computers

Exhibit 2: Top competitors by Product Line 2008-2009 (% share of units sold)

Product Line	2008	2009	Apple's Relative MS
Desktop and Portable Computers			
Apple	8.6	8.8	.34 (8.8/26.2)
Dell	29.9	26.2	
Hewlett Packard	26.0	25.7	
MP3 Players			
Apple	72.0	71.0	6.45 (71.0/11.0)
Scandisk	10.0	11.0	
Microsoft	3.0	4.0	
SmartPhones			
Apple	2.8	14.4	.40 (14.4/36.4)
Nokia	47.4	36.4	
Research in Motion	17.3	19.9	

Sources: Van Buskirk (2009), www.gartner.com^a, www.gartner.com^b, www.gartner.com^c, Hefflinger (2008), Schonfeld (2010).

Exhibit 3: Industry Growth Estimates by Product Line 2008-2010 (in millions of units sold)

Product Line	2008	2009	% Growth ('08-'09)	2010*	% Growth* ('09-'10)	Market Growth Rate
Desktop Computers ^a	133.7	137.6	2.9	109.8	(20.2)	Low
Portable Computers ^b	141.6	168.2	18.8	256.3	52.4	High
MP3 players	11.8	9.9	(16.2%)	9.7	(2.1)	Low
SmartPhone/ related products	139.3	172.4	23.8	250.5	45.3	High

*Projected Sources: www.physorg.com, Southerland (2009), Elmer-Dewitt (2009), Schonfeld (2010), Frost and Sullivan (2009)

The justification for each of the classification was as follows:

The iMAC desktop computer was classified as a “Dog” due to its low relative market share (8.8%) as compared to the industry leader which was Dell (26.2%) and the low market forecast calling for a decline of over 20%. The industry outlook for desktop computer demand was rapidly eroding.

The MAC portable line of computers (or MacBook) can be classified as a “question-mark” due to its relatively low market share (8.8%) as compared to the industry leader which was Dell (26.2%) and the high market forecast for demand and growth potential in the portable computer segment of 52.4%. Seeing that computers are continuing the trend of smaller and more portable, This Apple line has the potential to be built into a “star” (with increasing market share).

The iPod line of products can be classified as a “cash-cow” mainly driven by Apple’s (71%) share of the MP3 market and relative to the next largest competitor (Scandisk with 11%). The project growth rate for standalone MP3 players was negative but with 2010 forecasts (-

2.1%) improving over the 2009 levels (-16%). Most SmartPhones have music playing capability which may contribute the declining demand for standalone MP3 players.

The iPhone can be classified as a “question-mark” due to its relatively low market share (14.4%) as compared to the industry leader which was Nokia (36.4%) and the high market forecast for demand and projected growth rate of the SmartPhone industry (upwards of 45% in 2010). SmartPhones are quickly becoming the portable choice for music, applications, and communication therefore the Apple iPhone has the potential to build into a “star” (with increasing market share).

2. For each of the Apple product lines classified, describe two factors that could cause it to be re-classified (e.g., move from a question-mark to either a star or dog)? For each factor, how would each be re-classified? Justify your answers.

iMac Desktop Computers - The iMac desktop computer line was currently classified as a “dog”, mainly due to low market share in a relatively low projected growth market. Two factors that could impact This product line’s BCG classification was an increase in market share or an increase in projected demand for desktop computers.

An increase in market share (alone) for Apple’s iMac desktop computer line would move it into the “cash cow” classification. An increase in market demand (alone) for desktop computers would move it into the “question market” classification. An (unlikely) increase in both factors (market share and market demand) would make the iMac desktop computer line a “star”. Students may justify their answers by speculating on what changes would need to occur in the competitive marketplace to support the most likely scenario - Apple’s gain in market share (e.g., product failures on the part of large competitors, mergers, etc.) as well as increased consumer demand for desktop computing (e.g., computer use preferences relative to portability, worker office environment, etc.)

iMac Portable Computers - The iMac portable computer line was currently classified as a “question mark”, mainly due to low market share in a relatively high projected growth market. Two factors that could impact this product line’s BCG classification was an increase in market share or a decrease in projected demand for portable computers.

An increase in market share (alone) for Apple’s iMac portable computer line would move it into the “star” classification. A decrease in market demand (alone) for portable computers would move it into the “dog” classification. An (unlikely) change in both factors (increased market share and decreased market demand) would make the iMac portable computer line a “cash cow”. Students may justify their answers by speculating on what changes would need to occur in the competitive marketplace to support the most likely scenario - Apple’s gain in market share (e.g., product failures on the part of large competitors, mergers, etc.) as well as decreasing consumer demand for portable computers (e.g., computer use preferences relative to portability, worker office environment, etc.)

iPod - The iPod line of MP3 player was currently classified as a “cash cow”, mainly due to high market share in a relatively low projected growth market. Two factors that could impact This product line’s BCG classification was a decrease in market share or an increase in projected demand for MP3 players.

A decrease in market share (alone) for Apple's iPod line of products would move it into the "dog" classification. An increase in market demand (alone) for the iPod line would move it into the "star" classification. An (unlikely) change in both factors (decreased market share and increased market demand) would make the iPod a "question mark". Students may justify their answers by speculating on what changes would need to occur in the competitive marketplace to support the most likely scenario - Apple's loss of a very large market share (e.g., competitors focus on a specific market demographic, competitive product improvements, etc.). However, a substantial loss of share would be necessary for the iPod to move from its "cash cow" position.

iPhone - The iPhone was currently classified as a "question mark", mainly due to low market share in a relatively high projected growth market. Two factors that could impact This product line's BCG classification was an increase in market share or a decrease in projected demand for SmartPhones.

An increase in market share (alone) for Apple's iPhone would move it into the "star" classification. A decrease in market demand (alone) for the iPhone would move it into the "dog" classification. An (unlikely) change in both factors (increased market share and decreased market demand) would make the iPhone a "cash cow". Students may justify their answers by speculating on what changes would need to occur in the competitive marketplace to support the most likely scenario - Apple's gain in market share (e.g., relationships with partner companies, mergers, etc.) as well as increased consumer demand for SmartPhones (e.g., desire for all in one communication devices, range and availability of applications, etc.)

3. *What should Apple do to build their question mark product line(s)?*

The two product lines that were "question marks" are the iMac portable computer and the iPhone. The strategy for product lines in this category was to build into stars or phase out. For the iMac portable line of computers, Apple should draw on their loyal base of customers to continue to buy portable "Mac" computers. This can be done by continuing to make portable computers thinner, lighter, and affordable without compromising the functionality and ease of use that attracts and retains Mac users. Apple's main challenge with portable computers was gaining market share of the Windows -based PC user. To overcome This challenge, Apple needs to find a price point and/or incentive program that will attract the PC user to try a Mac upon their next portable computer purchase.

The strategy to build the iPhone into a "star" will be based on increasing market share. The main factor here is the exclusive network relationships (with AT&T for example) which prevent some consumers from buying the iPhone (they may be under a non AT&T contract). Agreements between Apple and other cellular network companies to provide iPhone service will attract a new segment of the market that will increase share.

4. *How should Apple leverage their cash-cow product line(s)?*

Apple's "cash cow" was its iPod line of products. The strategy for product lines in this category was to harvest cash in order to pay for the investments required to build "question marks" and hold "stars". In Apple's case, the cash reaped from the sale of iPods can be used to market the iPhone and iMac portable line of computers. Apple's strategy for the iPod line was to offer various models based on the size, capacity, and functionality needs of its users. As long as Apple

maintains its dominant share (71%) of the MP3 market, it should continue to market, sell, and use the cash from iPod sales to fund the research, development, and marketing efforts of its other product lines.

5. What should Apple do with their dog product-line(s)? What justification can you provide to support keeping it?

According to the BCG classification model, the iMac desktop line of computers was Apple’s “dog”. Due to its low relative market share and the lack of growth and profit potential projected in the desktop computer market, this line was a candidate for product divestiture. Given the move toward personal computing portability, it was unlikely that demand for this product line will increase. Unless Apple can find a way to overcome the challenges inherent with a large embedded base of Windows-based PC users, the iMac desktop computer line, it was difficult to justify keeping it. One alternative was to continue to offer the product line but not invest in research, development, and marketing costs. To minimize support costs, technical support for this product line could be offered online only. The main justification for keeping this line might stem from the opportunity to offer corporate customers desktop computers for their office employees. Under these conditions, profitable corporate contracts could be structured to offer multi-year term agreements for bundled service offerings comprised of both computer/software products and support services.

6. Think of an experience you have had as a consumer of any one Apple or competitor product (e.g., desktop/portable computer, MP3 player, SmartPhone, etc.). Do you agree with the prediction for market growth of this product as described in the case? Why or why not?

For this question, students will draw mainly from their personal experiences. Most students will have either owned or used an iPod or a MacBook laptop computer. Few may own or may have used the new iPhone.

Products Line	Project Growth of Product Line	Agree/Why	Disagree/Why
Desktop computer	Low	<ul style="list-style-type: none"> • Movement toward portability • Laptops becoming more affordable 	<ul style="list-style-type: none"> • Desktops are very affordable • More value for the dollar • Convenience for home or office use
Portable computer	High	<ul style="list-style-type: none"> • Portables becoming smaller, more compact • Increased speed, storage, capacity • Cost effective options • Choices of competitors 	<ul style="list-style-type: none"> • Devices such as SmartPhones, NetTablets function as portable computers
MP3 player	Low	<ul style="list-style-type: none"> • SmartPhones and other handheld communication devices store and play music • Smartphone devices cannibalizing the iPod 	<ul style="list-style-type: none"> • Demographic (younger) only cares about music/video playing capability • Above demographic was primary user for music/video • Smartphone “apps” available via iPod touch • Can utilize iPod touch for internet access • MP3 player affordability
SmartPhone	High	<ul style="list-style-type: none"> • One device for all communication, entertainment, and internet needs • Range of model capabilities suitable for individual needs 	<ul style="list-style-type: none"> • Affordability of SmartPhones. • Limited choices of network providers

For comparison, students may have a MP3 player from a competing company (e.g., Scandisk, Sony, Samsung). Rival PC or laptops may include Dell, HP, Acer (mini laptops). Competitors to the iPhone are Blackberry, Palm, LG, Nokia (among others). As a suggestion for facilitating in-class discussion, the following table could be filled out as students volunteer answers – listed are some possible answers students may offer:

The most interesting point of this discussion was that the perspectives being offered are those of 20-22 year old college students. Therefore, the arguments presented will center primarily on their financial and entertainment concerns. This perspective may be different coming from working professionals whose primary concerns are productivity and convenience.

EPILOGUE

By consistently designing beautiful products that consumers line-up to buy the day it hits stores, Steve Jobs and Apple, Inc. have managed to change expectations about how technology should work. Within the first decade of the new millennium, Jobs and Apple have succeeded in the digital convergence of the personal computer with other consumer electronics devices and for his efforts, Jobs was named Fortune Magazine's "CEO of the decade" (November 5, 2009). However, to continue this trend of innovative product offerings, Jobs and Apple Inc. need to remain out in front of the demand curve by strategically designing and marketing new products to capture the productivity, communication, and entertainment needs of a very loyal customer base.

In January of 2010, Jobs told a crowd of reporters that he wanted to begin the year by introducing a "truly magical and revolutionary product" (Quittner, 2010, p. 34). The result was the birth of the iPad – a single portable device capable of functioning as part laptop computer, part iPod, and part iPhone. The iPad works like a giant iPod touch, weighing only 1.5 pounds, with a 10 inch screen and starting at an affordable \$499. Jobs described it as "way better than a laptop, way better than a SmartPhone ... it feels like your typical Apple product: smooth, sleek, a slice of the future" (Quittner, 2010, p. 35). Analysts estimate that Apple could sell 6 million iPads in 2010; that would surpass sales of the iPhone in its first year (Grossman, 2010). Furthermore, industry experts suggest that upward of 10.5 million traditional and next generation tablet computers will be shipped in 2010 (www.gartner.com^d). The impact to Apple's bottom line was expected to be \$2.5 billion in new revenues in 2010 (Lyons, 2010).

With the visionary Steve Jobs in charge, Apple's future remains bright. Annual revenues (2010) are projected to be \$54 billion, which was an expected fiscal increase of nearly 50 percent (Lyons, 2010). What will be Steve Jobs' curtain call to this? If the last 10 years are any indication, consumers of electronic devices have only seen "the tip of the iceberg".

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FLOATING ISLAND INTERNATIONAL

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CASE DESCRIPTION

This case is about a small entrepreneurial firm, Floating Island International (FII), that used principles of biomimicry to develop a new product and, potentially, a new industry. The founder, Bruce Kania, invented BioHavens, which are literally floating islands and can be used to help clean water and create riparian habitat. The primary issue in this case is how to develop an appropriate 'blue ocean' strategy to establish this new technology as a vehicle for wastewater treatment and water remediation. Secondary issues include challenges of proving the technology across a variety of applications; being a small entrepreneur; developing appropriate marketing channels; protecting intellectual property; and reaching a global market. This case is intended for undergraduates and MBA students in strategy, entrepreneurship and international business courses, and courses with a focus on environmental sustainability. This case is designed to be taught in three class hours, and students would benefit by an additional six hours of outside preparation.

CASE SYNOPSIS

Floating Island International (FII) explores the challenges faced by a Montana entrepreneur who used principles of biomimicry to invent BioHavens, a potential water treatment technology. A BioHaven floating island is a man-made ecosystem which mimics natural wetlands, and can be used to help clean water and create riparian habitat. After four years of operation, his small company had produced and deployed over 3,000 islands and had established a network of 8 licensees, including 2 outside the US. BioHavens were being used in a variety of ways and settings, but to date the dominant applications were small scale and largely ornamental or aesthetic. However, the potential to use BioHavens as a vehicle for wastewater treatment and water remediation was immense, particularly in smaller communities and/or areas with limited infrastructure. FII had obtained some money for research and field applications, but the islands were a new technology and data documenting their water quality performance was far from complete. Many potential clients weren't interested in buying a technology whose effectiveness was not thoroughly documented. Water treatment represented totally new markets for FII, a 'blue ocean' scenario, and the company and its licensees were unsure how to best proceed. The case encourages students to consider the possibility of a solutions-based business model as one way of moving FII ahead, and to address the challenges of prospering in new markets.

INSTRUCTORS' NOTE RECOMMENDATIONS FOR TEACHING APPROACHES

The teaching objective is twofold:

1. To provide insight into an small entrepreneurial company using biomimicry to develop and nurture a new technology;
2. To engage students in the challenges of successfully bringing a unproven technology to new markets ('blue oceans'), relying in part on solutions-based thinking.

In preparation for case analysis we suggest that students read Lovins, Lovins and Hawken, "A Road Map for Natural Capitalism," Harvard Business Review, May-June 1999; summary material on biomimicry, such as Matt Vella, "Using Nature as a Design Guide," Business Week Feb. 11, 2008 (accessed online at [www. Businessweek.com](http://www.businessweek.com)); and Kim, W.C., Mauborgne, R. "Blue Ocean Strategy: From Theory to Practice," California Management Review, Vol. 47, No. 3 (2005), pp. 105-21.

DISCUSSION QUESTIONS

1. What are the major challenges (financial, organizational, intellectual property) facing FII in their attempt to commercialize their product? How can FII overcome these challenges?

a.) Financial. The financial information included in the case indicates that the firm is not yet profitable but is being financed by its founder's other money making endeavors. FII has had some success in attracting outside funding to help support research on BioHaven efficacy, but these funds are limited and inadequate to meet on-going R&D requirements. The company could seek outside money through New Venture Funds or Angel Investors. It might also be a good time for Bruce to sell to a large corporation that could take the company to the next level. Licensing is a slow revenue generator and may stifle growth in the long run.

b.) Organizational. FII has only a few employees and is not well positioned for supporting growth. Bruce is an inventor, and that is where his attention and interest are focused. On the other hand, FII is building a network of licensees who are an integral part of the organization. Many of the traditional organizational functions (notably marketing and production) are effectively 'outsourced' to the growing licensee network, thus reducing the need for a large organizational staff at FII itself.

c) Intellectual Property Rights. FII currently has a number of patents related to BioHavens pending, but protecting and defending these will be an ongoing concern, particularly in an international context. FII is only beginning to seriously consider foreign expansion, and the opportunities and challenges of protecting patents in international markets is a major concern for Bruce.

FII needs to make sure that it meets the patent requirements of every market that it is operating in, regardless of the level of intellectual property-rights enforcement. However, the best defense of its intellectual property is product innovation coupled with the company's ability to prove the efficacy of the product to potential customers – particularly government entities.

The ability to provide credible studies which back up its claims will go a long way toward protecting the business's intellectual property in the marketplace.

2. FII and several licensees believe that BioHavens have significant potential as a water quality treatment technology. What are the major opportunities and challenges facing FII in terms of this application and market?

One important realization is that FII has developed a product that represents an innovative approach to enhancing water quality. The last third of the case essentially focuses on this issue. Floating Island has the potential to revolutionize wastewater treatment, pollution control, and water management practices both in the U.S. and overseas. The technology is relatively easy to produce, transport, and deploy. It is 'scalable' and can be applied in a variety of situations. It is particularly well suited for a variety of applications, particularly in rural areas with limited infrastructure. There is data that demonstrates it has water cleaning properties and helps reduce levels of specific nutrients, including copper, zinc, nitrates and Phosphorus.

Opportunities: The stricter EPA standards for wastewater effluent that are pending represent a challenge for rural communities and a terrific opportunity for BioHavens. Traditional methods of treating wastewater (additional treatment ponds; filtering mechanisms; chemicals; etc.) represent significant capital investments, particularly for small communities. The successful introduction of BioHavens as a treatment option to help polish the effluent to meet the new EPA standards would provide a cost effective, ecologically friendly solution for these communities and a great opportunity for FII.

It is significant that there are no directly competing products for BioHavens; in fact, there is nothing quite like them. In essence FII is in the process of creating a new industrial segment, and is literally creating a 'blue ocean'. As Kim and Mauborgne note in their article, blue ocean strategists hold a 'reconstructionist' view of markets, and create new industries and new 'rules of the game.' The process of doing this, however, is relatively uncharted territory.

The principles embodied in natural capitalism also provide strategic direction in this case, specifically the focus on a solutions-based model. In the wastewater industry, potential customers (small communities) are not interested in the aesthetic properties of BioHavens, or even in owning a floating island. Rather, they want the ecological services that BioHavens can provide: the ability to remove or reduce specific nutrients and meet new EPA standards. Instead of selling BioHavens, FII licensees could sell the "clean-up" service provided by the floating islands.

Using these insights, FII's strategy could be to at least initially provide BioHavens to rural communities on a modified lease or pay for performance basis. Nutrient levels in wastewater settling ponds with BioHavens would be monitored on an on-going basis by the municipalities, and FII would be paid on the basis of the reduction in unwanted nutrients, and/or the ongoing maintenance of desired water quality measures. This approach would provide the communities with the ecological service they require, and also help FII gather the data to prove the efficacy of BioHavens in a variety of field settings.

Challenges: There are several major challenges facing FII.

1. There are obvious risks in the pay for performance approach discussed above. Developing the exact parameters for the appropriately sized BioHaven to maximize efficient

uptake while minimizing scale (and cost) may take time to refine. In the short term FII may provide more ‘island’ than a particular situation requires (thus increasing their costs), or not enough to completely polish the water. Determining the appropriate pricing for the services of the BioHaven will also require careful calculation.

The advantages of this approach are significant, particularly in the short run. Pay for performance clearly reduces the risk for potential clients in terms of trying the new technology. FII will reap the benefits from entering a new market, gain critical experience and exposure, gather performance data, and be able to position BioHavens as a BMP option for the EPA in the future. With over 400 potential sites in rural communities that will require additional wastewater treatment in Montana alone, the potential local market is large enough to target, but small enough for FII and its Headwater FI licensee to manage in the next several years. In fact, this is just the strategy FII – and Headwaters FI – have chosen to pursue.

2. Biohavens remain a largely ‘unproven’ and relatively unknown technology. For example, FII cannot yet say that, given a wastewater lagoon with particular characteristics, they can guarantee that this configuration of a BioHaven will definitely solve the problem. FII does have research and evidence documenting aspects of effectiveness, but they need more field studies and/or data to be able to document performance for potential clients. Given this level of uncertainty, municipalities or other government entities are unlikely to be willing to purchase a BioHaven. And the EPA will not endorse it as a proven technology, an endorsement that would be very beneficial.

3. In addition to Water Quality, what are some of the potential markets for FII?

Floating Island’s initial success has been in the man-made garden (ornamental) pond market, but BioHavens clearly have potential in a variety of other markets. Given the broad potential applications, developing a strategic focus is an immediate challenge. The Floating Island website (www.floatingislandinternational.com) lists over 25 categories of potential applications. Bruce Kania, as an inventor, has a broad and expansive vision about the possibilities embodied in BioHavens. Because there are so many potential applications, one challenge is deciding where the firm should focus its R&D efforts.

The following chart can be used to help students understand which markets have the most potential, both in economic terms and in terms of the vision Bruce has for the environment. We suggest that instructors sketch out the first rows and then invite students to come up with opportunities and constraints.

Teaching Note Figure 1						
Market	Water Quality	Wildlife Habitat	Beautification	Structures	Restoration	Futuristic
Examples	Sewage Storm water Rivers, Lakes, Streams Golf Courses Zoos	Protected species Waterfowl attraction Fish spawning Goose Magnets	Waterscapes Gardens Hiding unsightly areas	Foundation for docks, houses, bridges or walkways	Wetlands Bayous Stabilizing banks Levee control Erosion control Cutbank Creation	Deadzone restoration Creating new floating communities
Opportunities	New EPA regulations in US create strong market opportunities The islands are a simple, elegant, and environmentally appealing way to address water quality issues. Potentially lower cost solution compared to traditional approaches	Already making inroads in this market. Product fits well with each application.	BioHavens can be easily constructed to suit a variety of applications. Easy to build, deploy at this scale.	Relatively unexplored	Relatively unexplored	Unexplored
Constraints	Entrenched Methods of Water treatment already exist Unproven technology New technology, not widely known	Somewhat limited revenue potential (many potential customers non-profits) Cost of Biohaven	Basic ornamental market in US and Canada already under license	Market potential unknown Design, production, deployment more complex: costs of 'failure' high Mechanical evaluation data from Alden Labs will be critical to moving forward	Market potential unknown Design, production, deployment more complex; costs of 'failure' high Mechanical evaluation data from Alden Labs will be critical to moving forward	Need considerable additional R&D; Long term prospect at best

FOREIGN DIRECT INVESTMENT IN ARGENTINA AND URUGUAY

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CASE DESCRIPTION

The primary subject matter of this case concerns the financial analysis of real estate investments both for apartments in an urban area (Buenos Aires, Argentina) and raw developable land in a rural setting (Colonia Province, Uruguay). A strong secondary focus is on international aspects of business including language and cultural differences, human resource management problems and ethical concerns.

The case is best suited for a graduate level course in Real Estate Finance, though if the financial analysis aspects are deleted or minimized, it could be used in a junior or senior level class in International Business. The case is designed to be taught in two class hours and is expected to require four hours of outside preparation by students.

CASE SYNOPSIS

Two German professors travel from Ulm to Buenos Aires to investigate potential real estate investments for their consulting client. Their colleague, a real estate professor in an Argentine university, assists by finding students to help them. The case deals with the problems the professors endure and the adventures they experience in their search for data necessary to help their client make informed investment decisions. This case is unusual for U.S. students in that the perspective they must take is that of a German rather than an American.

INSTRUCTOR'S NOTES

RECOMMENDATION FOR TEACHING APPROACHES

This case study has been tested in our home university both in a graduate elective course in Real Estate Finance typically taken by second year MBAs and in a required undergraduate course in International Business typically taken by third year undergraduate students. It is believed that students in our university are most comfortable using directed questions, as shown at the end of the case. Perhaps better students might benefit from both deciding which questions to ask and what the appropriate answers are? If so, case questions could be deleted from the material presented to students.

For undergraduate students in International Business questions 3, 4 and 5 were removed. Those students were then additionally asked to translate all case words shown in Spanish and German into English. Typically they used an on-line dictionary such as available on Google for

this assignment. They were also asked to write a 500 word essay on the economic history of Argentina and of Uruguay. Here the CIA World Fact Book seemed useful.

This case is a combination factual and fictional experiences, designed to combine realism with the content necessary for a business school case. As such, inclusion of references and an epilogue are inappropriate.

SUGGESTED CASE QUESTIONS

Each question is printed in italics and then answered as we believe most appropriate. Certainly, some disagreement on the best answer to any question is possible. Good luck!

Question 1. Real estate students need to be comfortable with maps, even in the days of Mapquest and the GPS systems. Get a map of Buenos Aires on-line (try www.allaboutar.com) and locate the following: Avenida Santa Fe, Recoleta, Oblisco, Palermo, Avenida Las Heras, Avenida Liberador, San Telmo, Puerto Madero Avenida 9th Julio, Casa Rosada, Congreso, Avenida de Mayo, Lezama Park and Malabia. You may exclude three of your choice.

1. All of the requested locations can be found at the suggested web site, “www.allaboutar.com.” An overview map is shown below as a guide for finding the locations requested. Each district shown can be searched for the required locations.



Overall distance about 10 KM wide by about 3 ½ KM tall. The orientation (strangely) is top = west, right side = north.

Question 2. Drs. Bayern and Rodemann seem to be having substantial problems with Jose and Eva. What is your theory on the reason? What could they do to mitigate that problem?

2. There are many possibilities to explain why Eva and Jose failed to deliver the quality of service expected by Drs. Bayern and Rodemann. Possibilities include: (1) they are incompetent, (2) they are lazy, (3) they are bashful, or (4) their culture treats “time” differently than the Germans expect. Another possibility and the one we think is most likely is that the students and the Germans have a serious communication problem, and the Germans have done nothing to correct it.

At the first sign of trouble, the professors should have done everything possible to find out what problem caused the students to fail to deliver as expected. The students need to know that they can speak freely and openly with the Germans about any unexpected problems they face. It is the German's responsibility, as both mature adults and as professors use to dealing with students, to assure that lines of communication remain open and any problems are solved quickly. Our students insist that the Germans' lack of cell phones was a crucial mistake

Question 3. Table 1 gives rental and purchase information for apartments in Buenos Aires. Use the income capitalization approach, where $NOI \div \text{capitalization rate} = \text{estimated value}$. Do so for each location and number of bedroom combinations. The commission to rent apartments is 10% of effective gross income. You may assume that Table 1 includes all expenses necessary to calculate NOI and you may round to the nearest euro.

(HINT: You must calculate the NOI of each option, and then use an assumed 8% capitalization rate to compute "value." The lower the recorded selling price (in Table 1) compared to your calculated value, the better the bargain.)

For purposes of this question, answer the following:

- Which area / # of bedrooms combination is the best value?
- Which areas, if there is more than one, should the investors focus on and why?
- Table 1 provides information on the standard deviation for each input variable.

Which two are most important? How might the investor use this information?

3A. The economic analysis shown below clearly show that the Recoleta two bedroom flat is the best value with our estimate of value being 31.4% above market value.

	District - # Bedrooms		
	Recoleta -2	Recoleta -3	Recoleta -4
Gross Income	19200	20640	22344
Vacancy	-3456	-5573	-6927
Effective Gross	15744	15607	15417
Income (EGI)			
Commission	-1574	-1561	-1542
Utilities	-120	-180	-240
Other Op. Exp.	-600	-756	-840
NOI	13450	13110	12795
Est. Value ($\frac{NOI}{K}$)	168,125	163,875	159,942
Mean Market Value	128,000	146,000	179,000
Est. as % of Market	31.40%	12.20%	-10.70%

TABLE 2			
	District - # Bedrooms		
	Barrio Norte -2	Barrio Norte -3	Barrio Norte -4
Gross Income	18,000	18,960	19,404
- Vacancy	-4680	-5878	-7956
Effective Gross	13,320	12,122	11,448
Income (EGI)			
- Commission	-1332	-1212	-1145
- Utilities	-120	-180	-240
- Other Op. Exp.	-540	-588	-756
NOI	11328	10142	9307
Est. Value ($\frac{NOI}{K}$)	141,600	126,775	116,338
Mean Market Value	112,000	129,000	142,000
Est. as % of Market	26.40%	-1.70%	-18.10%

TABLE 3			
	District - # Bedrooms		
	Palermo -2	Palermo -3	Palermo -4
Gross Income	17400	18240	19212
- Vacancy	-4002	-3101	-5764
Effective Gross	13398	15139	13448
Income (EGI)			
- Commission	-1340	-1514	-1345
- Utilities	-120	-180	-240
- Other Op. Exp.	-540	-624	-768
NOI	11398	12821	11095
Est. Value ($\frac{NOI}{K}$)	142,475	160,263	138,688
Mean Market Value	122,000	137,000	153,000
Est. as % of Market	16.80%	17.00%	-9.40%

3B. Recall that all economics are based on mean values. Given that Barrio Norte -2 at 26.4% above, Palermo -3 at 17.0% above, Palermo -2 at 16.8% above and Recoleta -3 at 12.2% above market values are all likely places for investors to focus. Since property samples have variation in each area, it is possible that some properties in areas with an estimated value below average market price will also be attractive. Many such properties can probably be found in Barrio Norte -3 (-1.7%). Likelihood is a function of the size of the negative estimate of value compared to mean market value.

3C. The standard deviation of rent per month and selling price would be most important. The possibility of a “high” rent combined with a “low” selling price would be most powerful in generating a very profitably investment.

Question 4. A two-bedroom apartment in Recoleta seems to be the market favorite. Calculate the IRR of an investment in the average such apartment over a 5-year investment

time horizon. You may assume that inflation (affecting the usual income statement terms) is 4% per year, depreciation is 5% per year straight line to zero salvage value on the entire purchase price, the tax rate is 40% on ordinary income and on depreciation recapture; 25% on capital gain, the apartment will appreciate 8% per year. Calculate the IRR both using a 50% L/V ratio for a 7%, 20 year loan and assuming 100% equity financing.

4. The following financial analysis calculates the IRRs as requested. Using 50% leverage the IRR is 17.95%. With all equity the IRR falls to 11.71%, below the Pensin Plan's hurdle rate of 12% on equity.

Recoleta -2: 50% L/V					
	YR 1	YR 2	YR 3	YR 4	YR 5
NOI	13450	13988	14548	15129	15735
- Debt Serv	-5954	-5954	-5954	-5954	-5954
BTCF	7496	8034	8594	9175	9781
NOI	13450	13988	14548	15129	15735
- Interest	-4432	-4322	-4202	-4077	-3941
-Depreciation	-6400	-6400	-6400	-6400	-6400
Taxable Inc.	2618	3266	3944	4652	5394
Tax (Savings @ 40%)	1047	1306	1578	1861	2158
BTCF	7496	8034	8594	9175	9781
- Tax	-1047	-1306	-1578	-1861	-2158
ATCF	6448	6728	7016	7314	7623

Recoleta -2: 0% L/V					
	YR 1	YR 2	YR 3	YR 4	YR 5
NOI	13450	13988	14548	15129	15735
-Debt Serv.	0	0	0	0	0
BTCF	13450	13988	14548	15129	15735
NOI	13450	13988	14548	15129	15735
- Interest	0	0	0	0	0
-Depreciation	-6400	-6400	-6400	-6400	-6400
Taxable Inc	7050	7588	8148	8729	9335
Tax	2820	3035	3259	3492	3734
BTCF	13450	13988	14548	15129	15735
- Tax	-2820	-3035	-3259	-3492	-3734
ATCF	10630	10953	11289	11637	12001

Year of Sale	50% LV	0% LV
Sales Price	188,074	188,074
- Brokers Fee (6%)	- 11,284	- 11,284
- Mortgage Balance	- 55,204	- 0
BTCF	121,586	176,790
Depreciation Recapture	32,000	32,000
Tax @ 40%	12,800	12,800
Other Capital Gain	48,790	48,790
Tax @ 25%	12,198	12,198
BTCF	121,586	176,790
- Tax @ 40%	-12,800	-12,800
- Tax @ 25%	-12,198	-12,198
	96,588	151,792

Cash Flows	YR 0	YR 1	YR 2	YR 3	YR 4	YR 5	YR5 Sale
Recoleta - 2 (50% L/V)	(64,000)	6,448	6,728	7,016	7,314	7,623	96,588
IRR = 17.95%	NPV@12% K = 15,895 euros						
Cash Flows	YR 0	YR 1	YR 2	YR 3	YR 4	YR 5	YR5 Sale
Recoleta - 2 (0% L/V)	(128,000)	10,630	10,953	11,289	11,637	12001	151,792
IRR = 11.71%	NPV@12% K = (1,406) euros						

Question 5. Table 2 gives partially unprocessed data on Uruguayan raw land. Recall that Dr. Rodemann has developed a model to estimate the price per hectare for large tracts of developable land based on the characteristics shown in Table 2. The model in equation form is as follows:

$$\text{Value} = 874 + 3.35 \times (\text{Sum B} / \text{Sum A} - \text{Sum C} / \text{Sum A} \times K) \times D \times E \times F \times G \times H$$

(where value is calculated in euros per hectare and multiplicative coefficients D through H are as defined on Table 3 from Rodemann's model.)

For purposes of Dr. Rodemann's valuation equation Sum A, Sum B and Sum C are simply the sums shown under each column A, B and C in Table 2. The value of K is assumed to be 8% in this case. The multiplicative factors D through H are based on the size weighted mean values calculated from the data in columns D through H adjusted by their economic impact as shown in Table 3. For example, the 5.94 shown beneath column D in Table 2 is the weighted average "shape" variable, weighted by the size of the property shown in Column A. To calculate 5.94 multiply 10 times 0.9 and add it to 10 times 6.1 and add it to 6 times 6.0, etc. Dividing the nine term sum by the total size (32 hectares) yields 5.94%. Table 3 is then applied to calculate the economic impact of the weight-averaged "shape" variable. As Table 3 shows, Column D values in the range 3.01 to 6 have a 20% value reduction factor, i.e. a D value of 0.80. That number (0.80) is then put into Dr. Rodemann's equation for value. Students must calculate weight averages for columns E through H and interpret them using Table 3.

a) Calculate the hectare size weighted mean for variable E, F, G and H listed in Table 2. Combine that information with the coefficient values shown in Table 3 to estimate the value of a large tract of raw land in the Colonia area using Dr. Rodemann's model.

b) Pick two variables (D through H) and discuss why Rodemann's coefficients from Table 3 make sense or do not.

5A. The size weighted means from data in Table 2 and the economic impact of each variable as described in Table 3 are shown below:

Variable	Column	Size-Weighted Mean	Valuation Co-efficient
Shape	D	5.94	0.80
Distance from River	E	1.77	0.52
Distance from Colonia	F	4.03	0.80
Access	G	7.51	1.00
Condition	H	0.38	0.983

Applying these factors in Dr. Rodemann's valuation equation yields an estimated value of a large tract of land to be 6406 € / hectare or about \$4150 / acre, as shown below:

$$\text{Value} = 874 + 3.35 \times \left(7197 - \frac{154.53}{.08}\right) \times 0.80 \times 0.52 \times 0.80 \times 1.00 \times .983 = 6406 \text{ €/hectare}$$

5B. Students are asked to discuss only two of the variables below:

Column D describes the “shape” of the property on a scale of 0 to 10 with 10 being a square and other value relating to other less optimal shapes. Values between 6 and 10 are “acceptable” and are assigned a factor of 1. Values between 3 and 6 reduce property values by 20%, thus a 0.8 factor is assigned. Values between 0 and 3 severely depress the market value by 40% thus a 0.6 factor is assigned.

Column E describes distance from the river (or other pertinent location) where large scale development is planned. Values between 0 and 0.3 KM are acceptable and are assigned a factor of 1. As distance from the river increases, coefficient value declines, as shown in Table 3, such that at 5KM or more value is reduced by 63% and an 0.37 factor is assigned.

Column F shows distance from Colonia, Uruguay (or in the model any secondary pertinent location.) This time a close sample property will likely have a high value based on proximity, but large scale development will want to be away from the location. Table 3 shows that values need substantial reduction if they are close and small upward revisions if they are farther away.

Column G shows access to the property. Good access is expected and has a 1 factor assigned. Poorer access is penalized either 5% or 10% as shown in Exhibit 3.

Column H describes whether the property is clear or wooded. If wooded, it must be cleared. Clearing is estimated to cost 5% of value. The factors assigned in Table 3 take this into account.

Question 6. Ethical issues are always a concern in business school cases. In this case Drs. Bayern and Rodemann seem to constantly be ordering alcoholic beverages and breaking for happy hour. Is this ethical behavior?

On another ethical issue, Dr. Bayern said, “Not a peso for that madchen!” He implied that he did not plan to pay Eva, since, in his view at least she provided essentially no services. Is his behavior ethical?

6. Even though the use of alcohol is no longer politically correct, beer, wine and spirits are all legal products. The professors have violated no laws (such as underage drinking or DUI) by using the product. Therefore we support their right to happy hour! There is no alcohol related ethical problem identified in the case.

Regarding paying Eva, clearly she delivered little if any value to the professors though apparently she spent some time and effort trying and perhaps had bad luck. The answer depends on whether you consider the students to be employees of the professors or independent contractors. Employees are paid for their time regardless of the value of the results. Though, of course, if they continually fail to deliver value they will be fired. Independent contractors are paid only if they deliver the promised work, independent of how hard they try. The students are on a one-time assignment. We suggest they are most like independent contractors. Therefore, Dr. Bayern’s refusal to pay Eva is ethical.

Question 7. There are nine “issues” listed {{1}} to {{9}} in the cases. Write a short answer for each question below:

- **{{1}} Though not politically correct, why does Bayern laugh?**

Many high ranking Nazis escaped to South America at the end of World War II. Argentina was a favorite destination. Rodemann was hinting that native German speakers might be old Nazis.

- **{{2}} What does BASF stand for?**

BASF originally stood for Badische Anilin und Soda Fabrik (Baden Aniline and Soda Factory). Today, the four letters are a registered trademark and this German company is listed on the Frankfurt Stock Exchange. It is one of the world’s largest chemical companies

- **{{3}} What exactly is “Mendoza merlot”?**

Mendoza is a major city in Western Argentina near the Andes. It is the center of fruit production and viniculture. Most of the best Argentine wine comes from Mendoza. Merlot is a variety of both grapes and a type of red wine made from those grapes.

- **{{4}} What are 75 pesos and 75 euros worth in American money?**

As of today (1/19/10) there are 3.80 Argentine pesos per dollar and 0.699 euros per dollar. Therefore 75 pesos is about \$19.74 and 75 euros is about \$107.30.

- **{{5}} What are “Clarín” and “La Nación”? Do they exist? Show proof if, yes.**

“Clarín” and “La Nación” are both large Buenos Aires newspapers. Links to their respective web-sites follow: <http://www.clarin.com> and <http://www.lanacion.com.ar>

- **{{6}} What does the expression “U\$S” mean?**

The term “U\$S” is the way Argentines write the U.S. Dollar. They use the symbol “\$” to indicate Argentine Pesos.

- **{{7}} What is the “secret” ingredient in the risotto?**

Since the name of the restaurant means “snail” in English. A snail product of some form seems to be a likely candidate for the secret ingredient in the risotto.

- **{{8}} How did the expression, “reading him the riot act,” originate?**

Quoting “World Wide Words”(at <http://www.worldwidewords.org/qa/qa-real.htm>)

“These days, it’s just a figurative expression meaning to give an individual or a group a severe scolding or caution, or to announce that some unruly behaviour must cease. But originally it was a deadly serious injunction to a rioting crowd to disperse.

The Riot Act was passed by the British government in 1714 and came into force in 1715. This was the period of the Catholic Jacobite riots, when mobs opposed to the new Hanoverian king, George I, were attacking the meeting houses of dissenting groups. There was a very real threat of invasion by supporters of the deposed Stuart kings — as actually happened later that year and also in 1745. The government feared uprisings, and passed a draconian law making it a felony if a group of more than twelve persons refused to disperse more than an hour after magistrates had told them to do so. To invoke the law, the magistrates had to read the proclamation contained in the Act aloud to the mob, something that often required more courage than they could summon up.”

- **{{9}} Jose could not write a receipt. Write one for him.**

We propose that the following would do nicely.

To: Herr Doctor Gunthar Rodemann

From: Paco Sanchez

Date: XX/XX/XXXX

Re: Receipt for Payment of Services Provided

Today you paid me 75 Argentine pesos as full payment for all services and expenses that I provided you in connection with your work on real estate in Colonia Province, Uruguay.

WOMEN CONSUMERS IN THE CHINA COSMETIC SURGERY MARKET

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CASE DESCRIPTION

The case is designed for a marketing research course or a general marketing management course. It has the difficulty level of 5 (appropriate for first year graduate level) and 6 (appropriate for second year graduate level).

The major issues discussed in the case include:

- *Judgment on how income influences purchase intention and price sensitivity*
- *Judgment on how age and marriage status affect consumers' interest in the cosmetic surgery*
- *Recommendations on marketing communication strategy*
- *Judgment on the effectiveness of advertisement*
- *The case is designed to be taught in 2 class hours and does not require outside preparation.*

CASE SYNOPSIS

The case is about a Korean businessman who has conducted a market research in Shanghai before he builds up a cosmetic surgery clinic. The survey has investigated many consumer parameters. Therefore the first task for students is to learn how to analyze the relationship between marketing variables, such as consumers' purchase intention, demographics, price sensitivity, and so on. More importantly, students should be able to identify the business implications behind the data. This case is deliberately kept sufficiently simple to direct students' attention to the use of research findings, not to the intricacies of research design and execution. Information in the tables is displayed in a way that reflects how research is often presented in practice, in less than optimal ways, forcing students to come to an independent interpretation, including some recalculation of the data. Therefore, this case is suitable for a marketing research course, or for a general marketing course.

INSTRUCTOR'S NOTES

TEACHING OBJECTIVES

This case is designed to direct students to learn how to analyze the data collected in a market survey. This case is deliberately kept sufficiently simple to direct students' attention to the use of research findings, not to the intricacies of research design and execution. The case is well suited for a marketing homework assignment.

The case can be studied to achieve the following objectives:

- Students should learn how to analyze the relationship between marketing variables, such as consumers' purchase intention, demographics, price sensitivity, and so on.
- Students should be able to identify the key characters of the group of interest by comparing it to the whole sample population.
- Students should grasp the correct way to understand tables and figures.
- Students should learn how to explain the facts and identify implications of the facts.

QUESTIONS

Q1. According to Tables 2 and 3, what can you tell between consumers' income and their purchase intention and price sensitivity?

Income (RMB)	Frequency	Percentage
0-500	19	1.42
501-1,000	140	10.46
1,001-2,500	429	32.04
2,501-5,000	508	37.94
5,001-10,000	209	15.61
10,001+	34	2.54
Total	1,339	100

Income \ Price	Below 2000		2000 – 3000		3000 – 4000		4000 above		Total
-500									19
501-1,000	21	65.6%	9	28.1%	2	6.3%	0	0%	32
1,001-2,500	70	57.9%	29	24.0%	16	13.2%	6	4.9%	121
2,501-5,000	38	24.8%	44	28.8%	41	26.8%	30	19.6%	153
5,001-10,000	15	20.8%	19	26.4%	20	27.8%	18	25.0%	72
10,001 +	3	18.8%	4	25.0%	5	31.2%	4	25.0%	16
Total	150	38.1%	103	26.1%	82	20.8%	59	15.0%	394

There are actually two questions in Q1. The first is about consumers' income and their purchase intention of the cosmetic surgery, and the second is about consumers' income and their price sensitivity. In the case, Table 2 gives the income distribution of all respondents, while Table 3 contains the information of income distribution of potential users. Now all the data have been incorporated into the following table (See Table A). As for the first question in Q1, we conclude that consumers' income does influence their purchase intention.

Some students may argue that people with 1,000-5,000RMB income are mostly like to try the surgery, as suggested by the large number of potential users in these two income categories. However, this is due to the large percentage of the two categories in the whole sample population. Actually, as indicated in Table A, consumer categories with 5000 RMB above monthly income have higher proportion of potential users than other income categories.

Income (RMB)	Frequency of Potential User	Frequency of the Whole Sample	%
0-500	0	19	0
501-1,000	32	140	22.86
1,001-2,500	121	429	28.21
2,501-5,000	153	508	30.12
5,001-10,000	72	209	34.44
10,001+	16	34	47.06
Total	394	1,339	100.0

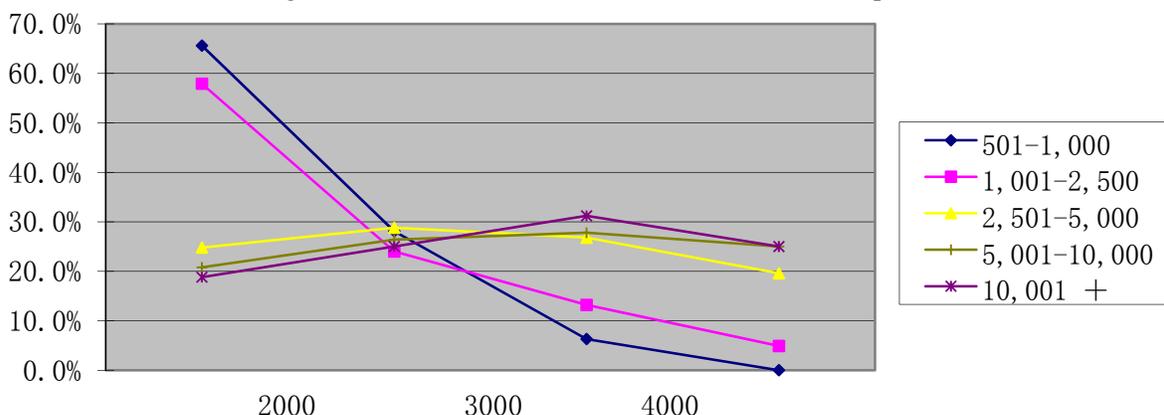
In the main text of the case, we have given a cross-table (Table 3) which details the distribution of potential users in different price ranges in numbers and percentage. Therefore, the distribution of every income group across the four price categories will reflect how sensitive a certain income group is to the price. With a careful look at Table B and Figure A, we can conclude that:

Consumer income does influence how much consumers are willing to pay for the laser surgery.

Once consumers' incomes are above 2,500RMB, they are relatively insensitive to the price and there is no substantial difference in price sensitivity across income groups.

Income	Price		2000 – 3000		3000 – 4000		4000 above		Total	
	Below 2000									
-500										19
501-1,000	21	65.6%	9	28.1%	2	6.3%	0	0%	32	100.0%
1,001-2,500	70	57.9%	29	24.0%	16	13.2%	6	4.9%	121	100.0%
2,501-5,000	38	24.8%	44	28.8%	41	26.8%	30	19.6%	153	100.0%
5,001-10,000	15	20.8%	19	26.4%	20	27.8%	18	25.0%	72	100.0%
10,001 +	3	18.8%	4	25.0%	5	31.2%	4	25.0%	16	100.0%
Total	150	38.1%	103	26.1%	82	20.8%	59	15.0%	394	100.0%

Figure A. Choice Distributions of Five Income Groups



Q2. According to Tables 1 and 4, how does age and marital status affect consumers' interest in cosmetic surgery?

Table 1
The Distribution of All Respondents and Potential Users for Laser Resurfacing Among Five Age Groups

Age	Number of Potential Users	Percentage	Number of Respondents	Percentage
Group A (18 – 22)	82	20.8%	264	19.8%
Group B (23 – 27)	74	18.8%	276	20.6%
Group C (28 – 32)	76	19.3%	275	20.5%
Group D (33 – 37)	80	20.3%	263	19.6%
Group E (38 – 42)	82	20.8%	261	19.5%
Total	394	100.0%	1,339	100.0%

Table 4
The Distribution of All Respondents and Potential Users across Five Groups of Different Marital Status

	Number of Potential Users	Percentage	Number of Respondents	Percentage
Single, without a partner	105	26.6%	313	23.4%
Single, in relation with a partner	60	15.2%	206	15.4%
Married without a Child	115	29.2%	500	37.3%
Married with a child	110	27.9%	305	22.8%
Divorced or Widow	4	1.1%	15	1.1%
Total	394	100.0%	1,339	100.0%

Table C
Age Distribution of Potential Users and the Whole Sample

Age	Potential User	Whole Sample	%
Group A (18 – 22)	82	264	31.1
Group B (23 – 27)	74	276	26.8
Group C (28 – 32)	76	275	27.6
Group D (33 – 37)	80	263	30.4
Group E (38 – 42)	82	261	31.4
Total	394	1,339	29.4

As we can observe in Table C, the potential user is quite evenly distributed among the five age groups. Therefore, we conclude that age does not affect consumer interest to try this cosmetic surgery.

Judging by Table 4 in the case, some students may conclude that women married without children are more likely to try the cosmetic surgery as indicated by the highest percentage of this group in potential users ($115/394=29.2\%$). However, this is because the highest percentage of this group in the whole sample population ($500/1339=37.3\%$). As a matter of fact, smart students should look at the numbers in a different way. It is helpful if students could calculate the percentage of potential users in every group as shown in the table above. If we merge the data from “single without a partner” and “single in relation with a partner” into a category named “unmarried in total”, we could find that the interest towards the laser surgery of this category is

higher than married women as indicated by the percentage 31.8% vs. 28.0%. Therefore we conclude that marriage status affects women's interest to try the laser surgery.

Marriage Status	Potential User	Whole Sample	% (row)
Single, without a partner	105	313	33.5
Single, in relation with a partner	60	206	29.1
(Unmarried in total)	(165)	(519)	(31.8)
Married, without a child	115	500	23.0
Married, with a child	110	305	36.1
(Married in total)	(225)	(805)	(28.0)
Divorced or Widowed	4	15	26.7
Total	394	1339	29.4

However, a further look into the data of married and unmarried women will gain more information. The user percentage of married women without a child is 23.0% which is much lower than that of married women with a child which is 36.1%. This indicates that having a child will strongly affect women's interest towards the laser surgery. For the unmarried women, those who have a partner show less interest towards the laser surgery than those who do not have a partner. This is partly due to that the former group is less worried about their appearance since they have already had a partner. Finally, for divorced or widowed women, their small number in the sample population makes them negligible in the study.

Q3. According to the findings in Table 5, what would you recommend Mr. Li for the communication strategy (how to design the ad)?

Questions	Group A	Group B	Group C	Group D	Group E
1. A woman should try to be beautiful.	4.04	4.11	4.13	4.05	4.08
2. Enjoying life is more important than health.	2.70	2.74	2.80	2.88	2.94
3. I like changes in my life.	3.84	3.71	3.67	3.70	3.74
4. I think health is more important than wealth.	3.65	4.08	4.17	4.15	4.22
5. I attach more importance on career than	3.17	3.15	3.12	3.27	3.31
6. I believe a woman should rely on herself.	2.97	3.04	2.92	3.30	3.51

Table 5 in the case contains six questions on several aspects of life, including attitudes on beauty, health, wealth, career, family, and independence. Based on Table 5, we can draw the following conclusions and implications.

All age groups strongly agree that a woman should try to be beautiful, and therefore beauty should certainly be the most important appeal of cosmetic surgery.

These results suggest that associating the cosmetic surgery with trying to be beautiful, with change, and with health will work well across age groups and respondents. But we can see from the responses to item 6 that associations with being a strong and independent woman should be avoided. Therefore, "I try to be beautiful, that's why I choose XXX cosmetic surgery"

would, for example, be a better slogan than “I make my own choices and I choose XXX cosmetic surgery.”

Q4. Which advertisement is the best and why?

Dimensions	Ad A	Ad B	Ad C
1. Visually stimulating and eye catching	4.1	3.1	3.5
2. Nice Appearance of people in ad	3.9	3.5	3.7
3. I am more interested in laser resurfacing by this clinic after seeing this ad.	3.1	3.4	3.0
4. Strong information content	3.2	3.6	3.2
5. I know key features of the surgery after seeing it.	3.1	3.6	3.2
6. In general, I like this ad.	3.8	3.3	3.1
Total	21.2	20.6	19.7

This question is designed to teach students how to compare advertisements, what key criteria to use in evaluating an advertisement, and what factors to consider in developing an advertisement.

Seven questions were asked to compare the three ads on five dimensions: aesthetic appeal (questions 1 and 2), information availability (questions 4 and 5), attitude towards the ad (question 6), and attitude towards the product (question 3)

Ad. A has the highest score on the dimension of aesthetic appeal and attitude towards the ad, due to nice pictures of beautiful models in the ad. Besides, it also has the highest overall score. Therefore, some students may think ad A is the best advertisement. However, on the dimension of attitude towards the product and information availability, ad B has the highest score. Smart students may have realized that although respondents like ad A the most, they are not very interested in the product after seeing this advertisement. In contrast, people generally are more interested in the product after seeing ad B. This is mainly due to that ad B contains detailed information regarding the cosmetic surgery.

The results suggest that for a new product which involves high risk, it doesn't matter whether the message points are presented in a likable or unlikable manner as long as the points are accepted by the target audience. Mr. Li should concentrate on loading the copy with convincing claims to reduce the typically high perceived risk. The target audience has to accept the ad's main benefit claims but does not have to like the ad itself. When the basis of the brand attitude is information, whether people like the way the information is presented is a less important consideration.

Q5. What recommendations do you have for Mr. Li?

Shanghai is a big city with some 15 million people. Mr. Li probably should concentrate his marketing spending rather than try to reach the whole market. Since his clinic will be a Korean-owned clinic and Korea has a good reputation in the cosmetic surgery field, it should be possible for him to appeal successfully to the 10,000 plus income category. Mr. Li should concentrate his resources, use advertisements providing detailed information and emphasizing beauty, and charge prices higher than average. Among the high income group, Mr. Li should find ways to concentrate on those who are married with a child, and then his marketing money will be especially well spent.

DETERMINING THE VALUE OF THE COCA COLA COMPANY – A CASE ANALYSIS

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CASE DESCRIPTION

The primary subject matter of this case concerns finance related topics and uses actual financial data to assess the rationale for why and when various models can be used to determine the stock price performance of the Coca Cola Company. Secondary issues examined include a determination of the value of the company using the discounted cash flow model. The case enables students to apply their knowledge of the principles of finance and accounting to a real world example. It is specifically designed to enhance, among other things, students' understanding of the selection of appropriate financial techniques and to apply those methods to a specific company, in this case the Coca Cola Company.

The case has difficulty levels of three, four, and five. The content is appropriate for the both an undergraduate principles of finance course taken primarily by students at the junior or senior level (levels three and four) as well as for first-year graduate students (level five). The case is designed to be completed primarily outside of class as group work with limited discussion in an in-class setting. Outside preparation time is expected to be three to four hours for students who have adequate background in the topics included. In-class discussion may range from thirty minutes to one hour.

CASE SYNOPSIS

Nicki James, a CFO of a wealth fund management advisory group, had been successful in solving the financial woes of her clients for a number of years. During that time, she had also dabbled in some investing of her own and was always looking for new opportunities. Therefore it was no surprise that ideas randomly came to her as one did on that fall day in 2009 as she was sipping from her can of Classic Coca Cola. Coke, as many referred to the product, had been a part of her life ever since her early childhood. Thus the well-established nature of the company along with the new prospects in sight for the organization inspired her to instruct her assistant and recent MBA graduate, Sarah Mills, to perform some financial analysis on her behalf. Could Coca Cola stock be the financial goldmine that both Nicki and her clients had always sought? With a little research and a few calculations, Nicki and Sarah were determined to find out!

INSTRUCTOR'S NOTES INTRODUCTION

This case focuses on finance related topics and uses actual financial data to assess the rationale for why and when various models can be used to determine the stock price performance of the Coca Cola Company. This case further examines the value of the company using the discounted cash flow model. It enables students to apply their knowledge of the principles of finance and accounting to a real world example.

The case was originally developed as a graduate course project and was updated for publication purposes. Various online financial sources were used in the development and data specific to the Coca Cola Company was applied to various financial models that are often taught in undergraduate and graduate courses.

Ideally, the case should be assigned as a group activity either inside or outside of class but preferably outside of class. Students should be instructed to carefully read through the case narrative and to analyze all of the tables provided. After fully understanding the case, students should begin to answer the case questions based on knowledge that they have obtained through their various finance and accounting courses. We suggest that all of the questions be assigned but you may assign those questions you deem most appropriate for specific class purposes. Along with a case write-up, you may also choose to ask students to prepare a presentation for in-class discussion.

While the answers presented in these instructor's notes represent what we deem to be the most appropriate responses, students' answers likely will vary. We suggest that you always require students to provide justification for their responses and evaluate such responses based on such reasoning.

CASE OVERVIEW

The case narrative introduces the main characters and some of the current events affecting the Coca Cola Company. In addition to the narrative, the company's income statement, balance sheet, and free cash flows for the last five years are presented in the tables that follow the case along with information regarding the company's outstanding bond issues, historical dividends, and treasury and growth rates among other pertinent items.

Most of the data contained in the cases must be utilized by students in attempting to answer the case questions. However, there is some additional, non-essential data that has been included as well so that students will be required to sift through the numbers and use only what is needed. While the balance sheet and income statement serve as good references and are used to an extent, the most important tables are Tables 3, 4, 5, 7, and 8. Additionally, advise students that they will need to use a financial calculator or spreadsheet in determining the cost of debt for the various bond issues. A small amount of outside research may be required for question #10. Direct students to access a comparative chart for the Coca Cola Company and its competitors as listed on Yahoo Finance and use that as well as other competitor data to answer the question.

DISCUSSION QUESTIONS AND SOLUTIONS

1. Mention and provide rationale for when and why various financial models can be used to determine the value of the Coca Cola Company stock.

Sarah may use, among others, the following valuation models:

* Zero growth or earnings capitalization model: This model is used for companies that do not pay dividends and when all earnings are assumed to be paid out as dividends. This model is not an appropriate model to be used since the Coca Cola Company pays dividends and actually ploughs back, or retains, a portion of its earnings. Looking at earnings per share, dividends, and revenues, the company has been continuously growing over the past five years and will likely continue to do so in the future.

* Constant growth model: The company's sales, earnings and annual dividends have been growing steadily. Based on the data provided, this model appears to be an appropriate model to be considered. However, the growth patterns are not constant across the various metrics.

* Variable growth model: This model appears to be the most appropriate dividend valuation model since it takes into account the variations in dividends and earnings over the past five years. One can assess the lower and upper bounds of the discounted future dividend cash flow streams under various growth assumptions using a sensitivity analysis.

* Capital asset pricing model: This is an alternative valuation model that explicitly accounts for market risk and can be used to assess the expected return on the Coca Cola Company stock.

* Price/earnings multiple model: This model provides an accurate assessment of the price of stock provided the company's operations are fairly aligned with its competitors in the industry, i.e., the company is not considerably under- or over- performing from the industry benchmark.

* Free cash flow model: As an alternative, the value of the entire firm can also be assessed using projected free cash flow streams. The value of the firm is the discounted value of the free cash flows generated over the life of the firm. The market value of the stock can be determined by subtracting the market value of debt from the market value of the firm.

2. Determine the market value of debt and equity and the composition of the capital structure of the company.

Book Value of Bonds (In millions of dollars)	# of Bonds Outstanding	Price per Bond	Market Value of Bonds (In millions of dollars)
\$1,748	1,748,000	\$1,098	\$1,919
\$1,339	1,339,000	\$1,038	\$1,390
\$897	897,000	\$1,040	\$933
\$500	500,000	\$1,045	\$522
\$116	116,000	\$1,169	\$136
\$510	510,000	\$923.20	\$471
\$5,110			\$5,371

Market Value of Equity (In millions of dollars):

Shares Outstanding	2,310
x Price per Share	<u>x \$56.54</u>
	\$130,607

Market Value of Debt (In millions of dollars):

Long-Term Debt at Market Value (Bonds Outstanding)	\$5,371	3.95%
Total Market Value of Equity	<u>\$130,607</u>	<u>96.05%</u>
Total Market Value of Financing (in millions of dollars)	\$135,978	100.00%

3. Determine the cost of equity using the capital asset pricing model (CAPM), where $R_f = 4.28\%$, $\beta = 0.62$, and $R_M = \text{S\&P 500 daily return compounded daily}$.

$$R_M = [(1.0003)^{365} - 1] = 11.57\%$$

$$k_e = 4.58\% + 0.62(11.57\% - 4.58\%) = 8.914\%$$

4. Determine the before- and after-tax cost of debt given the various bond issues, current prices, coupon rates and an appropriate tax rate. (Hint: Use the market value of each bond issue, determine the yield to maturity, the proportion of each issue and the weighted average of the yields).

Yield to Maturities (before tax) are determined using a financial calculator (the equation is provided below). Students may also use spreadsheets to determine the yield.

$$B_0 = I(\text{PVOAIF}_{n=?, kd=?}) + 1,000(\text{PVIF}_{n=?, kd=?})$$

where: I = Coupon payment

PVOAIF = present value ordinary annuity interest factor

PVIF = present value interest factor

n = number of periods

k_d = discount rate (YTM)

B_0 = current price of bond

LT Debt	Market Value of Bonds (In millions of dollars)	Proportion of Bonds	Current Price	Years Remaining (n)	YTM	Cost of Debt (before tax) (kd)
Coca Cola, 5.35%	\$1,919	35.73%	\$1,098	8	3.90%	1.39%
Coca Cola, 4.875%	\$1,390	25.88%	\$1,038	9.25	4.37%	1.13%
Coca Cola, 3.625%	\$933	17.37%	\$1,040	4.25	2.62%	0.46%
Coca Cola, 5.75%	\$522	9.73%	\$1,045	1.25	2.07%	0.20%
Coca Cola, 7.375%	\$136	2.52%	\$1,169	83.75	6.30%	0.16%
Coca Cola, 5.30%	\$471	8.77%	\$923.20	9	6.45%	0.57%
	\$5,371					3.91%

The Coca Cola Company carries interest bearing debts with different maturities. We assume these loans will be refinanced or rolled over at current yields upon maturity

The average tax rates for the past five years and the current year are calculated below. One can use the overall average of 24.65% or the recent tax rate of 29.89% (rounded to 30%). We consider the latter to be the most appropriate. The after-tax cost of debt under each scenario is calculated immediately after the table presented below.

Table 3A				
Income Tax Rate Calculations				
	Income Tax (In millions of dollars)	÷	Taxable Income (In millions of dollars)	Average Tax
2004	\$1,375	÷	\$6,222	22.10%
2005	\$1,818	÷	\$6,690	27.17%
2006	\$1,498	÷	\$6,578	22.77%
2007	\$1,892	÷	\$7,873	24.03%
2008	\$1,632	÷	\$7,439	21.94%
2009	\$2,040	÷	\$6,824	29.89%
			<i>Overall Average Rate</i>	24.65%

After-tax cost of debt:

Using the average rate: $k_d (1 - t) \rightarrow 3.91\% (1 - .2516) = 2.926\%$

Using most recent (2009) rate: $k_d (1 - t) \rightarrow 3.91\% (1 - .30) = 2.737\%$

5. **Using the appropriate market value proportions, the after-tax cost of debt calculated in question #4 and the cost of equity from question #3, determine the weighted average cost of capital (WACC).**

$$WACC = (1 - T_C) r_{debt} [D / (D+E)] + r_{equity} [E / (D + E)]$$

WACC based on current tax rate:

$$WACC = 2.737\% (0.0395) + 8.914\% (0.9605) = 8.67\%$$

Note: Even if the average tax rate for the six-year period is used, it will not significantly alter the value of WACC since the cost of long-term debt is such a small proportion of the firm's capital structure.

6. **Determine the sustainable growth rate and interpret your result.**

Sustainable Growth Rate = Return on Equity (ROE) x Plowback Ratio

$$\text{Return on Equity (2009)} = \frac{\text{Net Income}}{\text{Average Equity}} = \frac{\$6,824}{\$22,636} = 0.3015$$

$$\text{Plowback Ratio} = 1 - \text{Payout Ratio} = 1 - 0.56 = 0.44$$

$$\text{Sustainable Growth Rate} = 0.3015 \times 0.44 = 0.13266 = 13.27\%$$

13.27% is the maximum that the Coca Cola Company can grow its earnings and dividends without changing its target capital structure and raising outside equity. Considering the growth rates estimated by financial analysts and the historical growth rates, 13.27% is on the high side.

7. **Determine the value of the entire company using the discounted free cash flow model and the weighted average cost of capital calculated in question #5. Provide rationale for the assumptions that you use in projecting the future free cash flow streams and the**

rate at which they are expected to grow. Based on your results and using the current stock price of \$56.54 as your benchmark, assess whether the stock is over- or undervalued.

If we use the historical growth rate of 7.9 percent, the lowest growth estimate, for the projected free cash flows for the next five years, an average industry growth rate of 5% thereafter, and a discount rate (WACC) of 8.67%, we arrive at an estimated price today of \$71.70. The result suggests that the current price of the stock is undervalued. Based on this finding, Sarah may very well recommend that it is worth buying at the current price.

	2009	2010	2011	2012	2013	2014	Terminal Value Beyond 2014
CF	\$6,193	\$6,682	\$7,210	\$7,780	\$8,394	\$9,057	\$259,138
Discounted CF		\$6,149	\$6,106	\$6,062	\$6,019	\$5,977	170,995
Value of Company							170,995
Cost of Debt at Market Value							5,371
Cost of Equity (Value of Company Less Cost of Debt)							165,624
# of Shares Outstanding							2,310
Value per Share							\$71.70

On the other hand, if we use a growth rate of 8.5 percent, the highest growth estimate by Reuters for the projected free cash flows for the next 5 years, a growth rate of 5 percent (the average industry growth rate) thereafter, and a discount rate (WACC) of 8.67 percent, we come up with an estimated price today of \$73.78. The result suggests that the current price of the stock is undervalued as well. Again, based on this finding, Sarah may very well recommend that it is worth buying at the current price. We therefore conclude that the Coca Cola Company's stock deserves a higher premium to reflect its potential.

	2009	2010	2011	2012	2013	2014	Terminal Value Beyond 2014
CF	\$6,193	\$6,719	\$7,291	\$7,910	\$8,583	\$9,312	\$266,424
Discounted CF		\$6,183	\$6,174	\$6,164	\$6,154	\$6,145	175,802
Value of Company							175,802
Cost of Debt at Market Value							5,371
Cost of Equity (Value of Company Less Cost of Debt)							170,431
# of Shares Outstanding							2,310
Value per Share							\$73.78

One could also use the sustainable growth rate of 13.27 percent but it is significantly too high and may not be a realistic estimate of the company's future growth potential.

8. What will the price of the Coca Cola Company stock be like if the zero growth, constant growth, and variable growth models are used? In using the zero growth model, assume all earnings are paid out as dividends. Based on your findings, comment on the appropriateness of each of the valuation models.

$$P_{2009} \text{ with no growth and a } .0867 \text{ discount rate} = \frac{\text{EPS}_1}{r} = \frac{\$2.93}{.0867} = \$33.79$$

$$P_{2009} \text{ with using a 5\% industry growth rate of } = \frac{\text{DIV}_0(1+g)}{r-g} = \frac{1.64(1.05)}{.0867-.05} = \$46.92$$

$$P_{2009} \text{ with using a 6.0\%** average growth rate} = \frac{\text{DIV}_0(1+g)}{r-g} = \frac{1.64(1.05)}{.0867-.06} = \$64.49$$

**The 6 percent growth rate is slightly above the industry average but considerably below the lowest growth estimate of 7.9% by analysts.

Since the company has been growing steadily and is the leader in the industry, the zero growth is certainly not the right model to use. The value of the stock varies greatly depending on the growth assumptions used under the constant dividend discount model. Given the lowest growth rate of 7.9% and above for the company, a 6% growth rate appears reasonable. In that case, the current price may be substantially undervalued and may not fully reflect the long term growth potential of the company.

P_{2009} with variable growth

Projected price of stock using 5-year compound dividend growth rate of 7.9% for the first five years and a growth of 5% thereafter discounted at 8.67% yields the following result:

	2009	2010	2011	2012	2013	2014	Terminal Value Beyond 2014
Dividends	\$1.64	\$1.77	\$1.91	\$2.06	\$2.22	\$2.40	\$68.62
Discounted Dividends		\$1.63	\$1.62	\$1.61	\$1.59	\$1.58	\$45.28
Sum of Discounted Dividends / Value of each share							\$53.31

Projected price of stock using 5-year compound dividend growth rate of 8.5% for the first five years and a growth of 5% thereafter discounted at 8.67% yields the following result:

	2009	2010	2011	2012	2013	2014	Terminal Value Beyond 2014
Dividends	\$1.64	\$1.78	\$1.93	\$2.09	\$2.27	\$2.47	\$70.55
Discounted Dividends		\$1.64	\$1.63	\$1.63	\$1.63	\$1.63	\$46.56
Sum of Discounted Dividends / Value of each share							\$54.72

The variable growth model may be the most appropriate model given the different growth estimates and the non constant growth in historical earnings and dividends. Students can come up with their own assumptions within the bounds of the growth estimates provided in Table 8 to

determine whether Coca Cola's stock price is under- or overvalued. Given the assumptions we have laid out, the \$53.31 price we have calculated is just slightly below the trading price as of December 31, 2009 of \$56.54. The same holds true for the \$54.72 value obtained using a 5-year growth rate of 8.5%.

9. Using the company's current earnings per share and the industry P/E multiple, estimate the value per share. Comment on whether this model is the appropriate model to consider.

$$P_0 = \text{EPS (The Coca Cola Company)} \times \text{P/E multiple (Industry)}$$

$$P_{2009} = \$2.93 \times 17.23 = \$50.48$$

Based on this model, the value of each share is only \$50.48 compared with the current selling price as of December 31, 2009, of \$56.54. This model would have been justified if the stock price performance of the company mirrored that of the industry benchmark. The Coca Cola Company's growth potential appears to exceed that of the industry, however. As a result, the estimated price may not accurately reflect the value of the stock.

10. How does the company's Coca Cola's stock price performance fare compared to its peers over the past five years.



Source: Yahoo Finance

On average, the Coca Cola Company has normally performed better than the market, the S&P500, and Pepsi. Until mid-2008, the company's performance was almost exactly aligned with that of the Dr. Pepper Snapple Group but the latter has fared better in 2009. The Nestle Company, which produces products other than beverages and is well diversified, has consistently outperformed Coca Cola.

TRANSFORMING THE TEXAS PLANT

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CASE DESCRIPTION

The primary subject matter of this case is organizational transformation, along with the leadership and management theories that are necessary for success. The setting is a Texas plant that builds good products but has many personnel and operations problems that need to be resolved rapidly if it is to be competitive in the short run and survive in the long run. The case has a difficulty level of three to six depending on the assignments. Therefore, it could be used in junior- or senior-level undergraduate courses or first year graduate courses in leadership, management, organizational behavior, high performance teams, and organizational transformation.

INSTRUCTORS' NOTES

CASE OBJECTIVES

The teaching objectives for this case are: (1) To facilitate discussions about the leadership and management concepts that are required in organizational transformation initiatives; (2) To help students understand that changes must become an integral part of the system of an organization if they are to exist long term; (3) To help students learn how and why people must be involved in order for them to deliberately positively impact organizational transformation from a process and systems perspective; and (4) To help students understand that there are tools such as Force Field Analysis that can be used in organizational transformation.

David, the vice president and top person at the Texas Plant, hired Paula as an organizational development (OD) manager without first discussing with his leadership team that the plant needed an OD manager for organizational transformation. Harvey, the HR manager, was particularly angry over this situation because Paula would report to him but do what David assigned her to do. Paula went to work immediately and began the organizational transformation process, also without involving Harvey or other members of David's executive leadership team. Harvey engaged Joe, the plant manager, to help him negatively impact Paula's transformation efforts.

Eventually, Paula reported to David, but Harvey had taken all but one of her employees. So Paula was frustrated that she could not achieve more success. After three years, Paula left the Texas Plant. Soon thereafter, David transferred to another plant within the company. With the changes achieved by David and Paula, the Texas Plant had become the best plant in the company. However, after David and Paula left, the numerous changes that they had made began to revert to the "old ways." The Texas Plant then became the worst plant in the company.

COURSES AND LEVELS

This case could be used in junior- or senior-level undergraduate courses or first year graduate courses in leadership, management, organizational behavior, high performance teams, and organizational transformation.

CASE DISCUSSION QUESTIONS AND ANSWERS

1. **Should Paula resign?** Answer: If David leaves the situation as it is (i.e., Paula has one direct report; and Harvey and Joe are still able to use their power to thwart Paula's attempts to help David transform the Plant), then Paula should resign. Her staying will not benefit her or the Plant.

If Paula submits her resignation, should David accept it, or should he ask her to continue in her position at the Texas Plant? What is best for the Texas Plant? What is best for Paula? Answer: David should accept her resignation unless he is willing to function as a transformational leader and ensure the positive participation of all who are on his leadership team. This would be best for the Texas Plant and for Paula.

What actions could David take to ensure success for the organizational transformation effort if Paula stays? Answer: David should remove Joe and Harvey from their positions or limit their power. He should return her 11 direct reports to her.

What actions should David take to ensure success for the organizational transformation effort if Paula leaves? Answer: Whether or not Paula leaves, the best solution would be to remove Joe and Harvey from their positions. Their replacements should be knowledgeable about, and experienced in, organizational transformation (Bass, 1990; Choi, 2006; Eldrod & Tippett, 2002; Humphreys & Einstein, 2003, 2004; Loup & Koller, 2005). Their leadership styles should be compatible with David's leadership style.

2. **Discuss David's (the VP's) actions from the viewpoint of various leadership and management theories related to roles and responsibilities, organizational transformation, power, empowerment, high performance teams, trust, etc.** Answer: If David expected his executive leadership team to be a high performance team (and to function as transformational leaders who were involved in transforming the organization), he should have included them in the decisions relating to the need for an organizational development expert and the hiring of the OD manager (Bass, 1985, 1990; Humphreys & Einstein, 2003; Katzenbach, 1997; Tichy & Ulrich, 1984). David and his leadership team should have discussed the roles and responsibilities of the OD manager and the extent to which she was empowered to make decisions and take action without first getting approval. He should have hired the OD manager at the executive team level and had her report to him. An HR director would have typically been heavily involved in the design and implementation of an organizational transformation initiative. If Harvey had proven himself untrustworthy and/or not capable of being involved in such an initiative, he should not have been HR director.

What were the positive and negative results of David's actions? Answer – **Positive** results were: The organizational changes happened fast because the OD manager was empowered to make decisions and take actions without waiting for approval. Members of the “old guard” were forced to confront change and at least minimally participate in the effort.

Negative results were: David allowed members of his executive leadership team (i.e., Harvey and Joe) to make negative impact on the plant and on the organizational transformation efforts. As a result, the changes were not made an integral part of the system for the long-term operation of the plant.

What should David have done differently? Answer: Organizational transformation should have been an integral part of strategic and tactical plans and the execution of those plans (Beer & Einstadt, 2000; Porter, 1985; Pryor, Anderson, Toombs, & Humphreys, 2007). It should not have been something that was given to one person (the new OD manager) as a job requirement. It should have been part of all managers' and non-managers' jobs. In the strategic plan, David and his leadership team should have developed and promoted the organization's common vision, mission, goals and objectives, strategies and tactics, and measurements of achievement (key performance indicators). The tactical action plans should have included communication and training plans so that all employees would understand the level and type of change that would be required and their respective roles and responsibilities. Perhaps David should have designated coaches and mentors to assist others with the transformation efforts.

David should have discussed with his leadership team why an organizational development person was needed, and he should have asked for their input. This is a matter of professional protocol and respect. In addition, by including his team members in the decision making process, David would have had more “buy-in” and cooperation from them when the OD manager came on board. David should have hired Paula at the executive leadership team level and had her report directly to him. David's desire to be a Power Leader was never fully realized because he let the Power Mongers (Harvey and Joe) disrupt the organizational transformation efforts (Pryor, Humphreys, Anderson & Taneja, 2009). He should have decided earlier how to stop Harvey's and Joe's negative impact on the plant and the organizational transformation efforts. He should have refused to let Harvey have 11 of Paula's people. He knew that she could not do the same organizational transformation job with 1/12 as many people. Also David should have involved his leadership team in planning for organizational transformation based on the contingency that he or any one of them might leave.

David and his leadership team should have learned and applied motivation theories as well as how to build high performance teams and a culture that supports organizational transformation (Cummings & Worley, 2009; Humphreys & Langford, 2008; Katzenbach & Smith, 1993; Stogdill, 1959).

3. Discuss Paula's (the OD manager's) actions from the viewpoint of various leadership and management theories related to roles and responsibilities, organizational transformation, power, empowerment, teams, trust, etc. Answer: Paula understood (and used) theories relating to organizational transformation, empowerment, etc. (Block, 1987; Burns, 1996; Cummings & Worley, 2009; Humphreys & Einstein, 2004). However, she violated some critical components of those theories. While David empowered Paula to make decisions and

take actions, she reported to Harvey. She basically ignored Harvey and certainly did not treat him like he was her supervisor. She did not attempt to get buy-in from him or other members of the leadership team before she made decisions and took actions. Paula left prematurely.

What were the positive and negative results of the Paula's actions? Answer: She made changes occur by directly confronting the needs of the plant at the highest level (the leadership team) and vertically and horizontally throughout the plant. If she and David had stayed with the plant longer, they could have made the changes a part of the long-term survival of the plant. As it was, her leaving helped expedite the end of the changes and reverting back to the old ways and the old culture.

What should Paula have done differently? Answer: Paula should have asked David to make her position report directly to him so that she would be a peer with the members of David's leadership team. She should have communicated more (and better) with members of the leadership team and involved them in the decisions and actions that were required for organizational transformation (Lewis, Stephens & Weir, 2006). She should have made them part of the change process (Higgs & Rowland, 2005; Loup & Koller, 2005). Paula was a change agent, not the vice president. She should have sent out messages over David's signature indicating required changes in processes, systems, etc. Paula should have challenged Harvey when he took 11 of her people. She should have asked David to have the HR director move the 11 people with her when she was moved to report to David.

4. **Discuss Harvey's (the HR Director's) actions from the viewpoint of various leadership and management theories related to roles and responsibilities, organizational transformation, power, empowerment, teams, trust, and organizational politics.** Answer: It is possible that Harvey had shown himself not to be trustworthy or capable in some areas since David did not include him in any of the decisions relating to the organizational transformation effort, including the hiring of Paula, the OD manager (Humphreys & Einstein, 2004; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Another possibility is that David was aware of the negative results of Harvey's engaging in organizational politics with Joe, et al (Ferris & Kacmar, 1992; Ferris, Dwight, Galang, Zhou, Kacmar, & Howard, 1996; Miller, Rutherford, & Kolodinsky, 2008; Sussman, Adams, Kuzmits, & Raho, 2002).

What were the positive and negative results of Harvey's actions? Answer: There were no positive results. Harvey spent a lot of time blaming, whining, threatening, and taking other negative actions. The results were dramatic. David and Paula had to spend a lot of their time trying to counteract his negative actions. Paula left prematurely. Organizational changes were short term primarily because Harvey and Joe spent their time fighting Paula AND David.

What should Harvey have done differently? Answer: As HR director, Harvey knew that the organizational transformation initiative would work better if the OD manager reported directly to David. He should have made that happen when Paula was hired. Harvey should have stepped up to the challenges presented by the organizational transformation initiative. He should have offered to help David and Paula with the design and implementation of changes. He should not have solicited Joe's help in rejecting Paula and her efforts. He and Joe should have been loyal to David, their boss, and to the initiatives to improve the plant.

5. **Discuss specific leadership and management concepts relating to this case, including, but not limited to, transformational leadership, change management, organizational transformation, organizational politics, roles and responsibilities, unity of command, strategic management, and high performance teams.** Answer: Students should research each of the terms and provide answers based on their research. References should be utilized. A reference list is provided. It is not all inclusive, but it is an excellent starting point for students conducting research on various leadership and management topics.

GENERAL DISCUSSION

This case can be used to teach leadership and management concepts which would be required for organizational transformation to be successful. Organizational transformation is a strategy so it should be integrated into the organization's strategic plan, and tactical action plans should be developed (Beer & Eisenstat, 2000; Pryor, Anderson, Toombs, & Humphreys, 2007). Even in a situation where transformation is required, roles and responsibilities should be clearly defined. In addition to the previously mentioned problems, there were clearly communication issues as well as structural, chain of command, and unity of command issues (Fayol, 1949, 1955). The leadership team, particularly those reporting directly to a vice president should have all been briefed in advance in terms of the new OD Manager's level of empowerment. In fact, the best scenario would have been that the members of the executive leadership team would agree on the need for organizational transformation and the need to hire someone to assist with it. The new OD Manager was hired to be a change agent. When the change/transformation is going to be organization-wide, the change agent should report to the top person in the organization. So Paula should have reported to David from the beginning. Harvey could have been an advocate for the transformation if this issue had been handled correctly.

However, David apparently did not trust all members of the leadership team (particularly Harvey), so he did not adequately inform them or include them in decisions. Trust is essential if an organization is going to positively transform and continue its transformation over the long term (Cummings & Worley, 2009; Humphreys & Langford; Loup & Koller, 2005). The transformation was so dependent on David and Paula that when both of them left, the organization reverted to its old ways and became the worst plant in the company. Organizational transformation should be achieved by changing systems and involving the people who manage the systems in the transformation efforts. That way, those people will buy into the changes and help them succeed over the long term.

Harvey was clearly aligned with Joe, the Plant Manager, not David, Joe's boss. As a result, they not only did not implement David's ideas, they actively fought against the implementation. There were obvious needs for team building at the executive leadership team level and perhaps vertically throughout the departments and lower level organizational units in the plant (Katzenbach, 1997). It will be difficult to re-energize the organizational transformation effort, but it will be necessary for this plant to survive.

Power leaders perpetuate the constructive use of power (Pryor, Humphreys, Anderson & Taneja, 2009). They use their power for positive purposes and service to others—their employees, their organizations, their communities, their nations, their churches, and society in

general. David wanted to be a Power Leader, and he had the capability to be one. He cared about the management and non-management people in the plant, and he wanted the best for all of them. Also David liked what Paula had accomplished and he supported her initiatives. However, he never directly confronted Harvey. David could have stopped Harvey at any point, but he did not. David's failure to exercise his own power allowed Harvey to continue to threaten Paula and misuse and abuse power. As a result, Paula resigned. As Paula left, she encouraged David to take control of his plant, to put a stop to the negatives things that Harvey and Joe were doing to counteract David's positive leadership.

EPILOGUE

Two weeks after Paula left, David sent the Joe, the Plant Manager back to corporate. However, it was six more years before Harvey was forced to leave. David transferred to a plant in another state, and the Texas plant went from best to worst in the company. The corporate Human Resources vice president came down, stayed a week at the plant, fired Harvey, and put an interim HR Director in place. Whether the Texas plant will ever be the best again is not known at this time. What is known is that Harvey, someone whom Paula believed to be a power monger, is gone from the plant. Perhaps now, Power Leaders will step up and use power in positive ways.

STUDENT ASSIGNMENTS

1. Students should conduct research and answer the case questions, citing references. A reference list is provided. It is not all inclusive, but it is an excellent starting point for students conducting research on various leadership and management topics.
2. In teams of 3 to 5 people, students should also do the following:
 - a. Develop a list of what needs to be done to re-energize the organizational transformation effort.
 - b. Develop a force field analysis chart on the situation as described for the Texas Plant at the end of the case. The teacher can teach force field analysis or ask students to individually (or as a team) conduct research on force field analysis as well as other strategic and tactical tools that may be used in organizational transformation initiatives. When you know your current situation (A) and you want to change to another situation or desired state (B), Force Field Analysis can be used to determine existing forces in the environment which can assist or inhibit as you try to move from A to B. see Source :Mildred Golden Pryor, J. Chris White, and Leslie A. Toombs (2007, 1998). Strategic Quality Management: A Strategic Systems Approach to Continuous Improvement. USA: Cengage Learning (South-Western Publishing).

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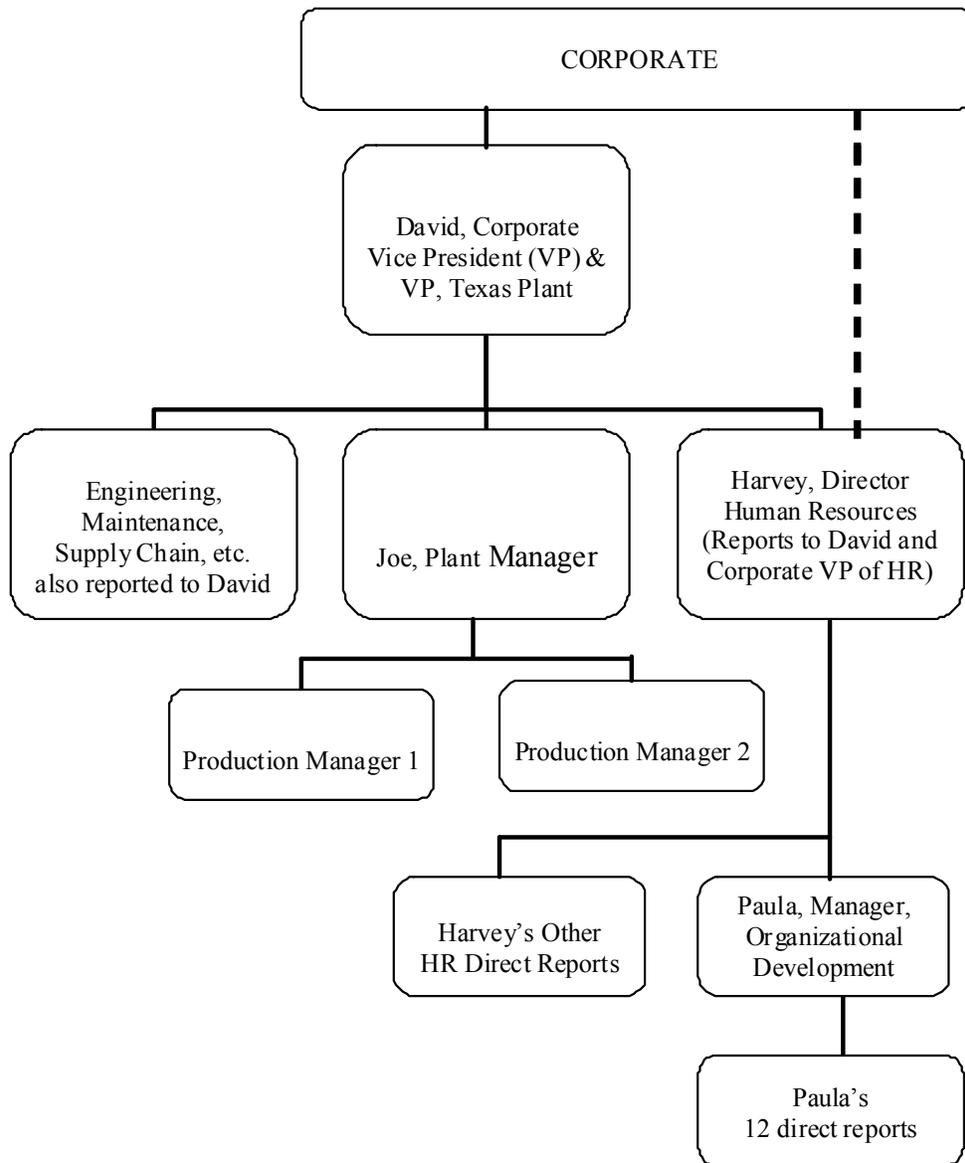
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APPENDIX B

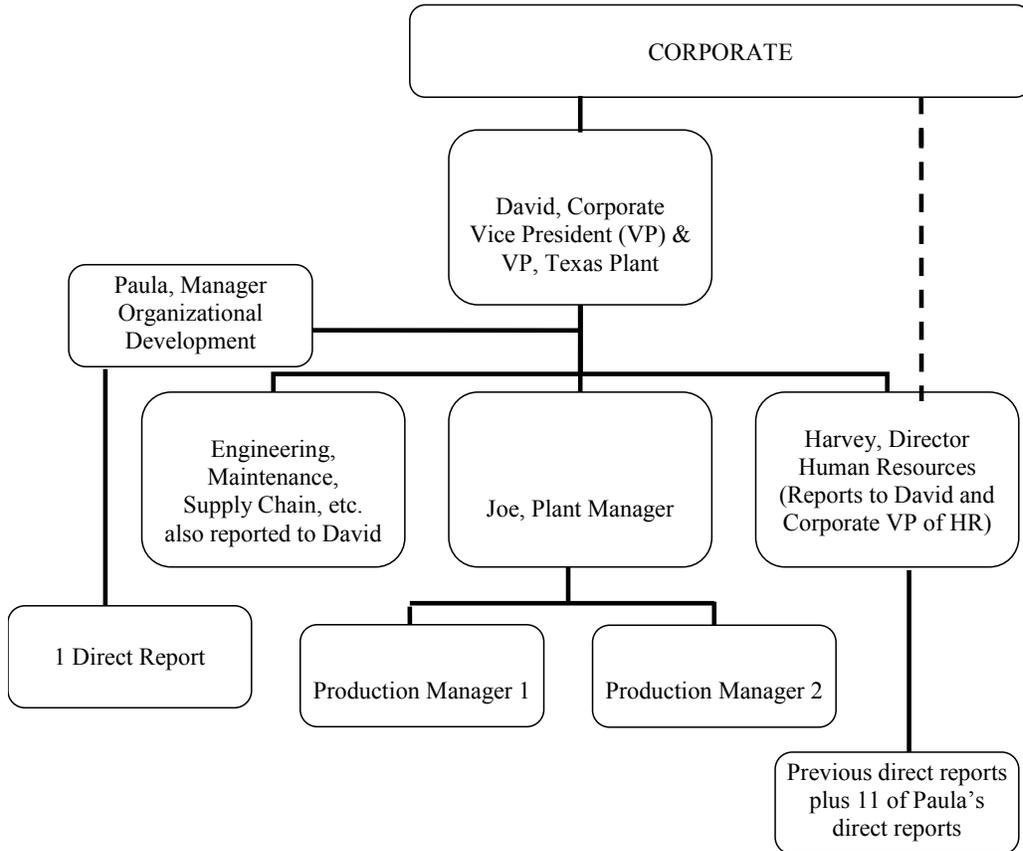
Chart 1 – The Texas Plant Organizational Chart
Paula Reports to Harvey, HR Director



|

APPENDIX C

Chart 2 – The Texas Plant Revised Organizational Chart
Paula Reports to David, Vice President



CHANGING AUDITORS—THE CASE OF CALLAWAY GOLF COMPANY AND ITS FOUR DIFFERENT AUDITORS IN ONE YEAR

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CASE DESCRIPTION

This case examines a proposed new auditor who is considering accepting a new audit client. The student then searches the professional literature regarding auditor changes. In particular, students are required to research Generally Accepted Auditing Standards (GAAS) regarding changing auditors and the Securities and Exchange Commission (SEC) form 8-K disclosure rules for auditor changes.

The case is appropriate for senior level and graduate level auditing courses. The difficulty level of this case is 3 to 5. The case is expected to require three hours of outside preparation and is designed to be taught in one class period. The suggested final product of this case is a short memo where the student evaluates the possible reasons why a company may change auditors as well as the required responses from the auditor when a change in auditors occurs. The case also works well as a discussion vehicle to discuss auditor changes.

This case exposes students to a real-world situation derived from Callaway Golf Company's (Callaway) 8-K filing, which documents a disagreement between Callaway and their auditor. (Additional information is taken from Callaway's 10-K and 12B-25 filings.)

CASE SYNOPSIS

What circumstances induced a well known NYSE traded company to employ four different auditors in the span of approximately one year? The principal event in this case is a disagreement between Callaway and the auditing firm of KPMG Peat Marwick (KPMG) over the interpretation of and accounting treatment for certain transactions. Although most companies and auditors go to great efforts to keep any accounting dispute private, both Callaway and the previous auditor in this case made the details of their dispute public, providing the public with interesting details on a dispute between a company and its auditor and how accounting standards are often open to different interpretations.

INSTRUCTORS' NOTES RECOMMENDED TEACHING APPROACHES

The case works well if the instructor provides some historical background for why Callaway chose to switch from their first auditor (PricewaterhouseCoopers). Begin the discussion with the fact that in the early 2000's there were a series of large-scale accounting frauds and audit failures in the United States. This led to a widespread belief that auditors may have lost their independence and objectivity. Some companies began to change auditors voluntarily in an effort to bring in an auditor that did not have a close relationship with management. Companies felt that a new auditor would be more independent and objective. This was the case with Callaway. The first auditor change that led to the multiple auditor changes was a voluntary auditor change started by the company in an effort to strengthen the company's corporate governance. At this point ask the class how they believe the market would view a company's voluntary auditor change in this circumstance. Most students believe that the market would view this type of change as positive.

Since Callaway's second auditor was Arthur Andersen, the students normally find it interesting to discuss a little about the Arthur Andersen case involving Enron and how this case led to the demise of Arthur Andersen.

It is important to note that historically it has been uncommon for a company to change its auditor. However, due to complaints regarding poor audit quality and the passing of the Sarbanes-Oxley Act (2002), auditor changes have become more common. Since 2002 6,500 companies have changed auditors, which represents just over half of the public companies in the United States (Grothe & Weirich, 2007).

This case has been tested and found to work well as an assignment (memo) that students prepare outside of class and then bring their memo to class to use in a discussion format. Questions that the student can be asked to address in the assigned memo are detailed in the following section along with suggested answers to the questions. The case is also sufficiently succinct to be presented by a professor in one class section and used as a discussion vehicle for teaching auditor changes.

KEY ISSUES FOR DISCUSSION/STUDENT ASSIGNMENT

1. **What are some of the reasons a company may change auditors?**

Companies are free to change auditors at anytime with no specific reason required. Possible reasons that companies may change auditors are:

- Companies may be dissatisfied with audit quality because they believe the audit firm's staff is inexperienced or incompetent or provides poor customer service. Some auditors have acquired specialized industry knowledge and a company might change to an industry specialist.
- Companies are always looking for way to cut costs. The company may be able to obtain lower audit fees by changing auditors.

- A company might switch auditors if it disagrees with an accounting treatment that the auditor is requiring.
- If a company has grown so large that the current auditor cannot effectively audit them, the company might switch to a larger auditor.
- Callaway switched from PricewaterhouseCoopers LLP (PWC) who had been the company's auditor since Callaway's IPO, in June 2001 because Callaway's audit committee believed that having a new auditor would enhance the auditor's independence.
- Subsequently in March 2002, Callaway dismissed Arthur Andersen due to concerns about the future of Arthur Andersen.
- In December 2002, KPMG was dismissed due to a disagreement over the warranty liability accounting treatment.

2. **Why would a company feel that a new auditor might be more independent than the company's current auditor with whom the company has a long-term relationship?**

Auditors must be independent and exercise professional skepticism when auditing a client. Over time the level of an auditor's independence and professional skepticism can be weakened due to the ongoing relationship with the client. Some efforts to minimize the risk of decreased independence were made with the Sarbanes-Oxley act that requires mandatory auditor partner rotation. The instructor may wish to discuss with students that some countries require mandatory audit firm rotation. PricewaterhouseCoopers LLP had been Callaway's auditor since Callaway's IPO.

3. **Callaway dismissed KPMG regarding a disagreement over an accounting estimate. What do the auditing standards require of an auditor regarding auditing an estimate?**

Auditing Estimates in the financial statements is covered by the Public Company Accounting Oversight Board's (PCAOB) interim auditing standards section AU 342, Auditing Accounting Estimates (available at www.pcaob.org), for non-public companies the relevant guidance is found in Statement on Auditing Standard No. 57). AU 342 requires the auditor to evaluate the reasonableness of the accounting estimate. The reasonableness of the estimate can be audited by using one or more of the following steps:

- Review and test the process used by management to develop the estimate.
- Develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate.
- Review subsequent events or transactions occurring prior to the date of the auditor's report (AU 342, par. 10).

4. **What is the relevant section of GAAS that discusses a change in auditors? What does GAAS require of the new auditor when there is a change in auditors?**

The auditing standards have specific guidance regarding the steps an auditor must take when there is a change in auditors. Section AU 315 of the PCAOB's interim auditing standards, Communications Between Predecessor and Successor Auditors (available at www.pcaob.org),

for non-public companies the relevant standard is Statement on Auditing Standard No. 84, sets guidelines for the required communication between predecessor and successor auditors. As AU 315 states,

“...inquiry of the predecessor auditor is a necessary procedure because the predecessor auditor may be able to provide information that will assist the successor auditor in determining whether to accept the engagement...”

AU 315 facilitates the communication of this essential information by requiring “specific and reasonable inquiries” of the predecessor in matters that may affect the successor’s decision to accept the engagement. Specifically, the successor auditor must inquire as to:

- Information that may bear on the integrity of management.
- Disagreements with management as to accounting principles, auditing procedures, or other significant matters.
- Communications to audit committees or other equivalent authority and responsibility regarding fraud, illegal acts by clients, and internal control related matters.
- The predecessor auditor’s understanding about the reason for the change of auditors (AU 315).

5. What is a Form 8-K. What is its purpose? What are the rules regarding 8-K’s when there is a change of auditors?

A Form 8-K is required whenever current events affecting a company occur and are too material to wait till the end of the financial reporting period. The purpose of an 8-K is to provide useful information to investors and creditors on a timely basis. When a public company decides to change its auditor, it must file a Form 8-K with the SEC. The Form 8-K has to be filed within 4 days after a company changes its auditors, or it risks SEC sanctions. The appointment of a new auditor and the firing of the old one are separate events that have to be reported on separate 8-Ks even if they occur at the same time. The company must state the reasons for the dismissal of their previous auditors. Once the auditor responds to the 8-K filed by the company, the company files another 8-K with the auditors’ responses attached to it. According to SEC Regulation S-K, Item 304(a) the following information must be reported on the Form 8-K:

- Whether the accountant resigned, declined to stand for reelection or was discharged (one of these must be specifically stated in the filing);
- The date of resignation or discharge;
- Whether the decision was recommended or approved by the Board of Directors or a committee thereof;
- Whether the accountant had issued a report in the last two fiscal years containing a disclaimer or adverse opinion, or that was qualified or modified. A modified opinion includes an opinion that expresses substantial doubt about a company’s ability to continue as a going concern;

- Whether in connection with audits of the two most recent years through the date of resignation or discharge there were any disagreements with the former accountant on any matter which, if not resolved to the satisfaction of the accountant, would have caused the accountant to make reference in its report to the matter. Among other items specified in S-K 304(a)(1)(iv), the filing should describe the subject matter of any such disagreement. Disagreements required to be reported include both those resolved to the satisfaction of the accountant and those not resolved to the satisfaction of the accountant.
- If there were any reportable events described under S-K 304(a)(1)(v) during the two most recent years and any interim period preceding the former accountant's resignation or discharge, provide the disclosures required by S-K 304(a)(1)(iv). If the event led to a disagreement, then it should be reported as described under Section 4510.2(e) and need not be repeated.

The instructor may find it useful to look up the Callaway 8-K dated December 12, 2002 on the SEC website to present in class which contains the following quote. It appears that Callaway and KPMG tried to reconcile their differences, even consulting with SEC on the matter, before KPMG was dismissed.

"In the third quarter of 2002 the Company completed a review of its warranty reserves, and concluded that a reduction of approximately \$17 million was warranted. This non-cash adjustment would result in an increase to the Company's income in the period in which the adjustment is taken. While KPMG did not object to the magnitude of the reduction, management and KPMG could not agree on the proper period or periods in which to record the adjustment. Management believed that the reduction was the result of a current change in the estimation process, and that therefore the entire reduction should be reflected in the third quarter. KPMG ultimately advised the Company that a substantial portion of the reduction related to periods prior to 2002, and the Company's financial statements for prior periods should be restated for a correction of an error to reflect the warranty reserve based upon the best information available to the Company at the time those prior period financial statements were prepared. Despite lengthy discussions between management and KPMG, including consultation with the staff of the Securities and Exchange Commission, management and KPMG could not reach agreement on a proper accounting treatment" (p. 2).

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ALIBABA: CHANGING THE WAY BUSINESS IS CONDUCTED IN THE INFORMATION ECONOMY

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Gideon Falk, Purdue University Calumet
Lori Feldman, Purdue University Calumet
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CASE DESCRIPTION

The primary subject matter of this case concerns the changing nature of international business. Secondary issues examined include unique business strategy and issues of corporate governance. The case is written at a difficulty level of three, appropriate for junior level courses. The case is designed to be taught in one class hour and is expected to require six hours of outside preparation by students.

CASE SYNOPSIS

The Chinese company, Alibaba, is changing the way global business is conducted. This fast growing B2B company has benefited from the explosion in information technology and has developed a unique business model. This case examines Alibaba's success and how the company is unique from most Western companies. With the explosive growth of Alibaba in China, the company is now ready to expand to the rest of the world.

INSTRUCTORS' NOTES RECOMMENDATIONS FOR TEACHING APPROACH

This case explores the activities, values, and strategy of the Alibaba Group - an impressive and rapidly growing Chinese company. Alibaba and its founder, Jack Ma, seek to change the way business is conducted and to improve the competitiveness of small and medium sized businesses worldwide. While the company is Chinese in origin, it has expanded into a number of other countries with its unique approach to business. The case is diverse enough to be of value to many different types of courses.

Teaching Objectives and Target Audience

This case has a number of objectives, including introducing readers to a unique Chinese business. The case examines an innovative company, business model, and set of corporate values that are instructive in developing a more global view of business. With the rise of Chinese businesses in the world, the case seeks to have readers explore the differences in approaches

found between this organization and the typical approaches found in the West. In addition, the case seeks to have readers think critically about the future of international business and how different cultural values may change global strategies.

The case is written primarily for an undergraduate audience; however, it could have usefulness in some graduate courses as well. This case is perhaps most useful in courses covering international business issues (i.e., international business, international management and international marketing); courses in strategic management; and courses in e-commerce and B2B. While the case is primarily targeted toward the audience in an introductory international business course, it would be a good supplement to many courses that touch upon global business issues and information technology.

Teaching Approach and Strategy

This case can be used in a number of different ways. The case is appropriate for general class discussion, group project assignments, or as individual homework. While a number of approaches are appropriate for the case, it is probably most useful when students have the opportunity to discuss their analysis in an open forum. The case addresses questions that are best explored through interaction with individuals having differing viewpoints. A discussion of the appropriate ranking of organizational stakeholders, for example, can lead to a rich exchange of ideas.

Since the company is evolving rapidly, it might be useful to have students research any changes that have occurred since the case was written. An investigation of changes could provide additional discussion and learning opportunities.

While the authors have provided discussion questions thought to be most important to the case, users should feel free to add any additional questions they think would be helpful to students in the courses they are teaching. Students in various courses may benefit from different questions, especially those in courses that are more technology-oriented.

ANALYSIS

Possible answers to the discussion questions can be found below. While these are the recommendations of the case writers, they are not intended to be the definitive answers to questions.

1. What do you think of Jack Ma's priority list which places shareholders last? Do you think this approach will work if he seeks capital outside of China? Explain.

The approach of Ma is quite unique, especially from a Western perspective. Maximizing the value of the firm and increasing shareholder wealth are standard objectives of most companies. This approach is influenced by cultural values. While Ma and the Alibaba Group seek to increase the success of the firm and its market capitalization, it is a long-term perspective that makes the difference in the priority ranking. Chinese culture has historically had a long-term perspective, or long-term orientation (LTO) according to Hofstede. When Ma says that he wants “shareholders” and not “share traders” he is emphasizing the fact that investors should be in it for

the long-term if they associate with the Alibaba Group. It could be reasoned that by putting customers first and employees second in the priority list, the company will prosper and shareholders will be long-term beneficiaries. While reducing membership fees during difficult economic times may decrease short-term profitability, the long-term effect of such a move may be quite different.

If Ma eventually seeks capital outside of China (trading on the Hong Kong exchange does attract some outside investors) he will face some resistance to his approach. Western investors, who have a short-term orientation and concern themselves with daily price valuation, may not appreciate Ma's long-term thinking. As the company continues to develop and mature, a longer track record will emerge, which may change the mind of some investors.

2. What are the unique components of Alibaba's business model/strategy?

Alibaba has several unique aspects to its business model/strategy. The following list represents some of those unique aspects, which can be explored in more detail through classroom discussion.

- A. Company goal: Facilitate export by medium and small businesses, especially Chinese firms, in order to provide more jobs to the Chinese people. Ma's focus is on helping smaller firms that do not have the resources to promote their products.
- B. Focus on and facilitate B2B transactions
- C. Use of IT to expedite international trade
- D. A collection of inter-related firms
- E. Long term perspective
- F. Put the customer before the shareholders
- G. Stakeholder philosophy: customers, employees, shareholders
- H. Intimate knowledge and understanding of the Chinese market

3. Many successful companies have controversial or provocative names such as Caterpillar, Gap, Virgin, and Yahoo. In what way is the name Alibaba controversial? How does this name advance Alibaba Group's strategy?

The name Alibaba is controversial because it connotes some negative images. The idea of thieves, killing, and deception are interwoven into the 18th century tale of "Alibaba and the Forty Thieves". Consumers doing business with Ma's company view these negative images in a positive way. The name is a provocation because customers do not take the name literally. This happens because the name maps to the positioning point of the brand. The negative images associated with the name give it greater depth. By using a slice of the connotative images associated with the word "Alibaba", and mapping that slice to a portion of the company's positioning, the word becomes redefined. So now, when customers hear the name Alibaba they think of gold, caves, opportunity, and a smart woodcutter who helped his village. The gold, of course, is symbolic of the money to be made when doing business through Alibaba.com. The cave (the place where the gold was hidden in the original tale) is a metaphor for untapped B2B opportunities available to small and medium size businesses registered with Alibaba. The

woodcutter becomes a symbol for businesses that see opportunities to make money using the power of networking afforded by this Chinese B2B organization.

The provocative name Ma selected for his firm advances the corporate strategy of the Alibaba Group because it is not a typical Chinese name. But it is one known to people from many cultures and is nearly globally identifiable. Most people have heard and can spell the name. They associate it with the tale. Any negative power connected with the word Alibaba (because of its connection to thieves) is forgotten because people do not interpret the word literally. The connection between gold and Alibaba, as well as the village woodcutter who seizes the gold, symbolize the core activities of Jack Ma's firm. The name is provocative for a company engaged in bringing businesses together because it is not linear or obvious, i.e., it does not include words such as "networking" or "connections". Alibaba is a folk tale character who works hard to help his village, just like the Alibaba Group that helps make fortunes for its registered members. Consumers do not usually deconstruct names in a literal or a negative way. Rather, they interpret them in a context defined by the brand. Caterpillar, for example, is an effective name in the earth-moving equipment industry because the name is a provocation. The company name is not "Elephant" or "Bull" or anything else that is obvious. Caterpillars are tiny insects that are easily squashed and weak by nature. Yet Caterpillar, as a company name, is one of the most engaging in the earth-moving industry.

4. How would you assess Alibaba Group's reaction to Google's conflict with the Chinese government over its censoring of search engine results?

Google considered closing its China offices following the cyber attacks by hackers in China. This is significant because it set off an alarm to an Internet-connected public that is the world's largest at 384 million people. Google hopes that it can persuade the Chinese government to agree to changes that would enable its website in China to show uncensored search results. At present, Beijing requires Internet traffic to pass through gateways that are controlled by the government. Those gateways block access to material deemed pornographic or subversive by the Chinese government. Google's China-based site excludes from its search-engine results any foreign websites to which access is blocked by the government.

Alibaba sharply criticized Yahoo when it said that it is "aligned with Google" in condemning the cyber attacks experienced by Google and 34 other companies by hackers in China. Yahoo supported Google in its conflict with the Chinese government because of its owners' Western values. Alibaba, an e-commerce B2B company, in which Yahoo owns a 40% share, stated that Yahoo's position was reckless and based on insufficient facts. The position of the Chinese government is clear. They want to control information disseminated over the Internet. This amounts to censorship. Google does not want its search results censored by the Chinese government or anyone for that matter.

In 1999 Yahoo was one of the first foreign Internet companies to become established in China. This was in part due to the friendship between Jerry Yang, co-founder of Yahoo, and Jack Ma. The relationship enabled Yahoo to experience accelerated growth in China. In 2005 Yahoo paid \$1 billion and handed over its Chinese operations to Alibaba in return for a near 40% equity stake in the company. Yahoo benefited from this investment in that Alibaba Group, which owns Alibaba.com, has a current net worth of several billion dollars.

Among other things, Yahoo is concerned with its image when it comes to protecting client privacy. Yahoo's management suffered public backlash over its decision to hand over information to the Chinese government that resulted in the imprisonment of Shi Tao and another dissident. Mr. Yang personally apologized to the families of Shi Tao and the other person for Yahoo's providing personal email information to Beijing. The late Tom Lantos, a congressman from California, sharply criticized Yahoo's management saying "while technologically and financially you are giants, morally you are pygmies." Yahoo did not want a repetition of this public relations disaster and it aligned itself with Google against the Chinese government on the issue of censorship.

Alibaba, wanting to do business in China, and interested in appeasing bureaucrats in Beijing, took issue with the position of Yahoo and Google on the matter of censorship. When queried, Alibaba clearly stated that it would cooperate with the Chinese government in any future conflicts. Jack Ma's position is that he is not a political group. He is a businessman. The Google issue has strained relations between Yahoo and Alibaba. Where the relationship will go in the future is unclear. Had Alibaba supported Yahoo, it would likely be out of business in China.

5. Do you think the future of international business will change as more people become familiar with the Alibaba business model? Explain.

As technology improves, it makes it easier to communicate and to conduct business internationally. The ability to communicate with foreign suppliers in real time, to remotely view their operations, and to receive product samples quickly can change the way international business has traditionally been conducted. For example, it is conceivable that the importance of trade shows and foreign plant visits may be reduced as technology continues to improve. With the assurances provided by Alibaba concerning the reliability of its suppliers and the ability of buyers to remotely assess their potential business partners, more international business may be conducted through the Internet than in person. Alibaba's approach, with its emphasis on SMEs also has the potential to level the playing field internationally. Companies that previously had little opportunity to engage in international business activity now have an international storefront and can offer their goods to the world. The overall changes in trade practices associated with the Alibaba model may be more virtual international business interactions and a far greater field of international players.

A SYSTEMS ANALYSIS, DESIGN, AND DEVELOPMENT CASE STUDY: WILLIAMS BROS. APPLIANCES INVENTORY & POINT-OF-SALE SYSTEM

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CASE DESCRIPTION

The primary subject matter of this case is Systems Analysis, Design, and Development. For Systems Analysis and Design students, this case provides a realistic, and fairly common, scenario that will require developing process and data models as well as user interface designs for the client. Furthermore, students in a Systems Development capstone course can use this scenario to develop an entire application from the ground up. The case has a difficulty level between three and four, appropriate for junior and senior level students. As a Systems Analysis and Design project, it will require approximately 12-15 hours to complete, outside of the normal course time to discuss process modeling, data modeling, and user interface design. As a Systems Development capstone project, it will require approximately 20-25 hours to complete. Students can examine Interview Notes and realistic document images. Teaching notes are also provided, with a proposed solution using UML.

CASE SYNOPSIS

Dr. Thomas Waggoner, an information systems professor at the local university, has just received a phone call from his friend, Ted Williams, co-owner with his brother Will of Williams Bros. Appliances in River Falls, Iowa. Ted is extremely frustrated with their current slow, manual method of processing sales and tracking inventory, and is afraid that they are losing sales because of it. Ted explains what he needs and Dr. Waggoner thinks that this will be a great project for his students. He makes an appointment with Ted to get a better understanding of the initial requirements. He then begins organizing the students in his Systems Analysis and Design class and his capstone class in System Development to see if they can develop a solution for the Williams Bros'.

TEACHING NOTES CASE PURPOSE/OBJECTIVES

The purpose of this case study is to provide an opportunity for students to apply systems analysis and design theory and modeling techniques in a semi-realistic environment. Furthermore, it offers students in a system development course an opportunity to experience a

situation very similar to what they might see in a consulting engagement. The interview notes and supporting documents provided in the case offer an added sense of reality.

METHODOLOGY

This case is based on the author's own consulting experiences. The system was developed for an appliance store very similar to the one discussed, the names and identifying information having been changed. This particular consulting engagement offers students a small but realistic opportunity to analyze, design, and develop an inventory and point of sale system for an organization that should be somewhat familiar to them. This case study has been used by the author in a systems analysis and design course with great success.

TEACHING SUGGESTIONS

This case is designed to be a major project for the semester. In my systems development courses a group of 4-5 students would work on a project of this size for most of the semester, with the requirement that it had to be completed in order to receive credit for the class. This type of course is typically the capstone for graduating seniors, and as such they would have taken systems analysis and design, programming, and database courses. For a systems analysis and design course, the project could be introduced around mid-semester, after process and data modeling have been discussed, and assigned to a small group of students to complete. Once the topic of interface design has been presented, the students could proceed to incorporate these concepts into the project. This case is most appropriate at the undergraduate level, but could certainly be applied in a graduate-level systems analysis and design course.

For both the systems analysis and design course and the systems development course, an additional requirement could be to develop an initial project plan, schedule, and budget to incorporate project management techniques. A good suggestion is then to have the students record their actual time spent working on various tasks on a prepared time sheet, and on a regular basis compare the actual progress against the plan. At the completion of the project the students could include an assessment of the variances in their pre- or post-implementation review. This review is very useful to the students in that it gives them an opportunity to think back over the project, critique the work that was done, identify things that went well and which they can apply to subsequent projects, and also identify areas where problems occur in order to analyze the causes and hopefully prevent their reoccurrence. Items often discussed include group dynamics, scheduling issues, work assignments, tools used, etc.

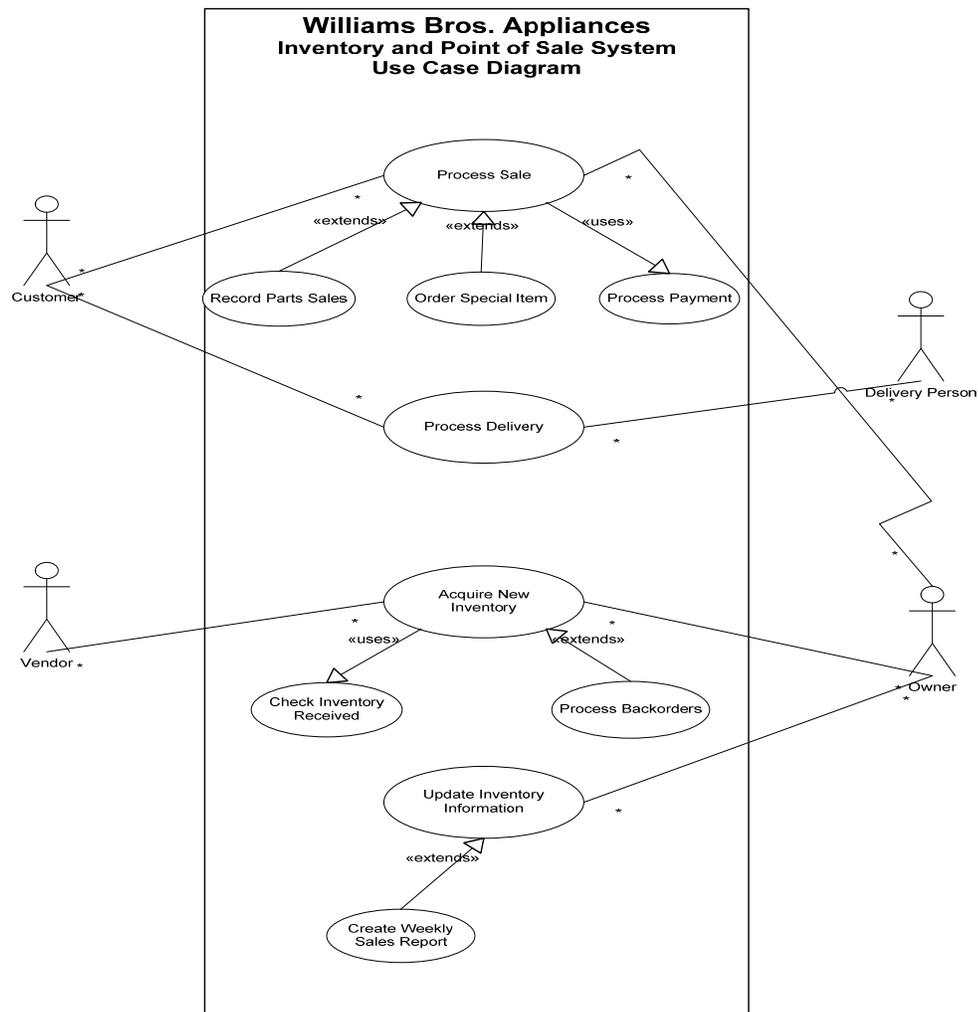
For instructors of the systems development course in particular, two significant personal requirements are strong technical skills and good project management ability. Most likely, there will be several different projects being worked on by various groups; the instructor must have the ability to act as a program manager over the projects, and must be able to help solve the technical issues as they arise.

PROPOSED SOLUTION

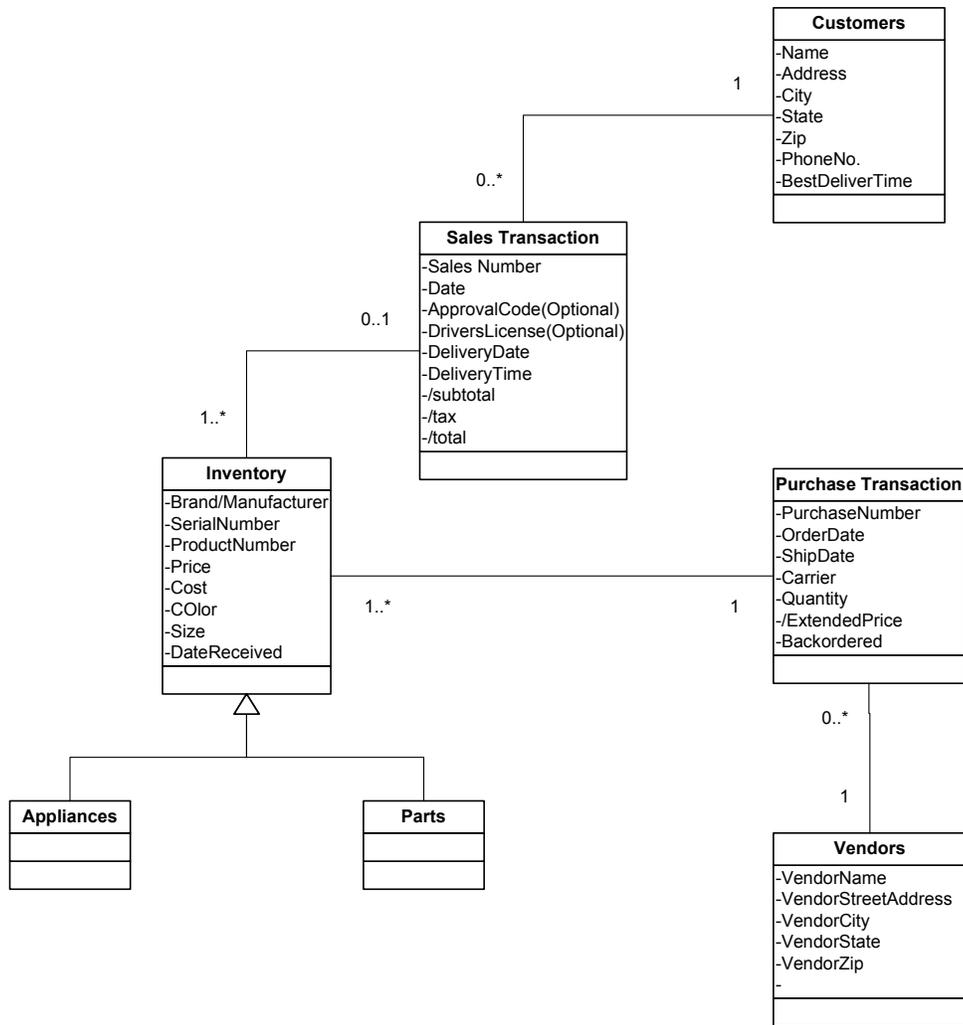
The suggested solution provided is for an object-oriented approach, but can be modified for a traditional approach to systems analysis and design. Suggested Use Case Diagram, Class Diagram, and example User Interface designs are provided below.

CONCLUSION

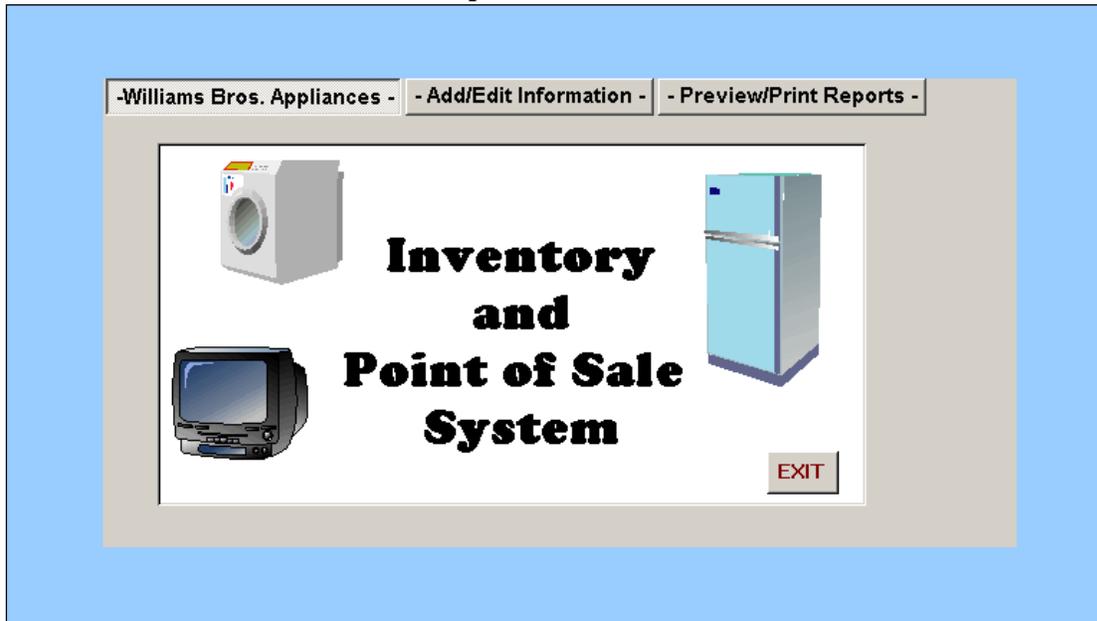
This case study offers students a unique opportunity to apply the concepts and techniques learned in systems analysis and design to a realistic and reasonably-sized project. For systems development students it provides the opportunity to completely develop a working system for a relatively common environment while still offering challenges that require drawing on skills learned in analysis and design, database, and programming courses.



Williams Bros. Appliances
Inventory and Point of Sale System
Class Diagram



Example Screen: Main Menu



Example Screen: Enter/Edit Inventory Information

The screenshot displays a window titled 'Williams Bros. Appliances Enter/Update Inventory'. The form contains the following fields and values:

- Date Received: 08/09/2009
- Invoice Number: 321456
- Model Number: FR12345
- Serial Number: 4654987654
- Lookup Key: FR12345 - 4654987654
- Brand/Manufacturer: Frigidaire
- Description: Refrigerator
- Cost: \$650.00
- Selling Price: \$750.00
- Date Sold: 8/9/2009
- Layaway?: No
- Sold Today?: (button)

Navigation buttons at the bottom include: Add Inventory, Next Item, Previous Item, Find Item, and EXIT. The status bar at the very bottom shows 'Record: 1 of 3' and 'No Filter'.

Example Screen: Enter/Edit Customer Information

**Williams Bro's. Appliances
Customer Information**

First Name: Last Name:

Street Address: Phone:

City: State: ZIP:

Nontaxable? Credit Limit:

Comments:

Add Customer **Next Customer** **Previous Customer** **Find Customer** **EXIT**

Record: 1 of 2 No Filter Search

Example Screen: Enter/Edit Sales

Williams Bros. Appliances Invoice No. 1
1410 Commercial Street Sale Date: 10/14/09
River Falls, Iowa 52333 (319) 555-APPL

INVOICE

Customer [Add New Customer](#) [Edit Customer Info](#)

Name: **Payment Details**
Address: 1144 South Street **Payment Type:**
River Falls, IA 52333- **Credit Limit** \$0.00 **Exp. Date:**
Nontaxable **Name on Card:**

Appliance Sales **Parts Sales** **Total Sales**

Select	Model Number	Serial Number	Brand/Manuf.	Description	Selling Price
<input type="checkbox"/>	FR12345	4654987654	Frigidaire	Refrigerator	\$750.00

of Items: 1 **Subtotal Appliances:** #Error

Record: 1 of 9 No Filter Search

Record New Sale **Print Invoice** **Close Sales Invoice**

Record: 1 of 9 No Filter Search

THE INVESTMENT

Henry Elrod, University of the Incarnate Word

CASE DESCRIPTION

The primary subject matter of this case concerns viatical settlements. This case may be used as a student assignment in a variety of college classes: (a) individual income tax, (b) tax research, (c) financial principles, (d) investments, (e) insurance, (f) fraud examination, or (g) an ethics class. Its primary use is intended to be in a graduate or senior capstone in which the students would be expected to examine the case from all perspectives: tax, investment, fraud, and ethics. The case should take the best students two or three hours of analysis and two hours of writing and editing to prepare if the response is a graded paper, but it could be discussed in a class cold—without any prior preparation by the students other than reading through the case—as it deals with relatively simple investment, tax, and ethical ideas with which most students have some basic familiarity. For each possible use, the case offers many teaching points that an instructor may use to lead the discussion. Difficulty level is rated four to five.

CASE SYNOPSIS

Nita Beth and her husband David are middle-America, middle class college graduates with some sophistication in investing. They are confronted by the need to invest for the future, and the opportunity to make an investment with high potential returns. Jacob is dying, and needs cash for his medical expenses. He has life insurance, but how can he get the cash he needs now? A viatical settlement transaction may be the answer for these people. Or, is it?

INSTRUCTOR'S NOTES THE INVESTMENT

The epilogue to the case is that, as happened in many viatical settlement investments, the seller Jacob got the \$70,000 he needed, but more important, he got the benefit of great advances in the treatment of HIV/AIDS, and is still living over a decade later. The investors, David and Nita Beth, ultimately lost their investment, as the viatical settlement pool was unable to continue paying the premiums on the policies purchased for the investors, let the policies lapse, and failed.

Students should consider the information following in their analysis of this case. Here are optional discussion questions:

1. Do you think David and Nita Beth should make this investment? Why, or why not?
2. Should Jacob sell his insurance? Who is affected by his decision? What other alternatives should he investigate?

3. Prepare a presentation or report to support your answers to 1 and 2. Consider the investment from the point of view of the seller as well as the buyer, and report on the tax, insurance, investment, and ethical aspects of the transaction, and how these aspects support your recommendation for David and Beth, and for Jacob.
4. David and Beth were introduced to the investment by advisors who were not investment professionals (a life insurance agent and his next door neighbor, a real estate agent. What steps could they have taken to improve their chance of getting sound professional investment advice?

TAX.

Students should discover that the proceeds of the death benefit of a life insurance policy are not taxable income to the beneficiary. They should also discover that there are restrictions on the investments that can be made in an IRA or 401-K that may cause the income from the viatical settlement investment to lose its character and become taxable income. Whether the benefit is taxable to the buyer upon the death of the insured depends on the status of the viatical settlement provider under IRS Reg. § 101(g)(2)(B) and the status of the insured under IRS Reg. § 101(g)(4)(A) and IRS Reg. § 101(g)(4)(B). Revenue Ruling 2002-82 explains the requirements that viatical settlement providers who own the life insurance contracts from which death benefits are paid, and that the insured who sells the contract, must meet to enjoy the exclusion from income of the proceeds of the sale and the proceeds of the policy upon the death of the insured. Generally, under Section 101(a)(1) of the Health Insurance Portability and Accountability Act of 1996, the amounts received under a life insurance contract by reason of the death of the insured are excluded from gross income (IRS, 2002).

Normally, the sales price paid to the insured selling the policy is considered a death benefit under the policy for tax purposes if the seller is certified by a Doctor to have 24 months or less time to live, i.e., the seller must be terminally ill (APLA, 2008). For those only chronically ill, where death might occur in five years or less, for instance, the payment to the seller can be taxable, depending on the type of policy and the relationship of the settlement payment to the cash value and death benefit before and after the transaction. The relationship of the total premiums paid to the cash value and to the death benefit before and after the transaction, will determine whether the income from a life settlement for a chronically ill seller is taxed at capital gains rates or as ordinary income, or both.

The seller should also consider whether the receipt of a lump sum settlement, which will count as income whether taxable or not, might affect their eligibility for SSI and/or Medicaid payments (APLA, 2008).

FINANCIAL AND INVESTMENT.

Once invested in viatical settlements such as the one Nita Beth and David bought, investors cannot easily get their cash investment back. Viatical settlements are not considered liquid investments, as there is no functioning market for these products, and the syndicator or

pool manager may be unwilling or unable to buy an interest back. From an investment perspective, students should be expected to understand the fundamentals of how life insurance works, and be able to select an appropriate discount rate to use in the present value calculation. The important issue is the time to the maturity of the policy. Students could use health statistics on various cancers and HIV/AIDS to estimate probabilities for survival periods of less than five years, six to ten years, and so on, and use these probabilities to estimate a probability weighted time to maturity to use in the present value calculations. Students can also attempt to add or subtract from the basic discount rate to account for various extraneous risks, such as the risk that a cure will be found, the risk of suicide (in which the policy would not pay in the first two years) and so on. (See also section on investment advice.)

FRAUD.

Sophisticated investors should be aware of the possibility of fraud. Sources such as the American Association of Retired Persons (AARP, 2002), and the National Association of Insurance Commissioners (NAIC, 2004) have useful viatical settlement anti-fraud information available on the Internet. Typical frauds might resemble Ponzi schemes, where skeptical diligence with respect to the existence of and terms of the insurance policies and diligence with respect to the financial and ethical history of the promoter would serve an investor well. The AARP web page was set up to provide information to members about the pitfalls of investing in viatical settlements. The chief problems they described included (a) improved medical care that extends the lives of the insureds, (b) the potential for fraud in that the insured and/or the policy might not exist, (c) the policy may have been sold to others, (d) the viatical settlement company may go out of business or otherwise fail to pay the premiums, and (e) that the insured's heirs may contest the changes to the policy beneficiary.

The insured has to die to generate the insurance death benefit, and even then, several things may happen that could reduce or eliminate the payout. First, as an investor through a pool arrangement, you do not know the names of the insureds, and you do not have any first hand information about them or their insurance policies, as you have to rely on the pool syndicator. Are they really sick? Are the policies as advertised? Do the insureds actually exist? The policy interests may have been sold to too many investors. There is great potential for fraud in these arrangements.

INSURANCE.

In a principles class, the case could be used as the starting point for discussion of the terms of various life insurance products, and for an understanding of the economic model of the insurance industry. Additionally, the NAIC has a model Viatical Settlements Act that could be incorporated (NAIC, 2004). The insurance issues are not clear. Is a viatical settlement an insurance product? The answer depends on where the transaction takes place. States regulate their own insurance industries, and there are substantive differences from state to state. Certain tax treatments require the settlement company to be licensed by the state with jurisdiction, but

only if the state requires a license to deal in viatical settlements ("Health Insurance Portability and Accountability Act," 1996).

RISK ANALYSIS.

Another consideration in any investment is an evaluation of the relationship of potential reward to the apparent risk involved in the investment. Risk is perhaps widely misunderstood, and the term is used in every day conversation. People talk of a risky foreign policy, the risk of catching the flu, and the risk associated with securities as though the term meant the same thing in every context. With regard to investments and securities risk is the standard deviation of all the probable or expected returns over a given period of time, or as Sharpe (2005) put it, the uncertainty associated with the end value of an investment. If the distribution of returns is normal (a condition facilitated by a large number of trials), an investment will offer a range of returns for which the moderate returns are numerous and the extreme returns are few. Thus, investments that entail a potential for a very high reward will include a potential for complete or nearly complete loss, leading to the more common observation that if it sounds too good to be true, it probably is. By definition, investments with high potential reward are high-risk.

OTHER CONSIDERATIONS.

Assuming there is no fraud in the investment scheme, there are still problems that can arise, that students should consider. For instance, the insured's relatives who were the original beneficiaries of the policies may not be aware of the sales of the insurance policies, and they may contest the sales, claiming the death benefits for themselves. Another problem is that the tax treatment expected may not be available. David rolled over his police retirement account to an IRA, but IRC 408(a)(3) says IRA funds may not be invested in insurance contracts. Even worse, it is possible that the insurance company could go out of business before the insured dies. Most states have guaranty funds to help policyholders when insurance companies fail, but they may not pay one hundred cents on the dollar.

For older investors, the insured may out-live the investor. Even if that does not happen, investors like David and Nita Beth should have considered that advances in medicine, as have occurred in the treatment of HIV/AIDS, may come along that increase the lives of the insured, who like Jacob, may still be alive today. This delay in the payout of the investment may reduce the anticipated return to a much lower figure than anticipated. Worse for the investor, the pool may have to pay the life insurance premiums far longer than anticipated, and the pool may run out of money and fail.

ETHICAL CONSIDERATIONS.

Trinkaas and Giacalone (2002) discussed the ethical aspects of viatical settlements, as opposed to an economic analysis of the transactions in which the ownership of a life insurance policy is transferred to an investor who does not have a traditional insurable interest in the insured. They raise three important issues. First, as noted, the viatical settlement transfers the life

policy to an owner without an insurable interest in the insured, thus creating a conflict of interest. For the investment to be successful, the new owner must hope for the early demise of the insured, contra to the interests of the insured and the interests of the insurance underwriter. Second, the transaction creates a situation contra to public policy that ethical investors should avoid: they are making money off the ill health and ultimate death of the other party to the transaction. This should certainly be distasteful to most investors. Third, the transaction invariably occurs at a time of great stress in the lives of the terminally ill patients who are the typical sellers of the policies, so the playing field is not level. Ethical buyers should take great care here as well.

Sandel (1998) discussed the moral aspect of viatical settlements, citing the view that making money from the death of another is a moral outrage and contra to sound public policy. For those who might point out that many industries profit from the misfortune of others, such as the life insurance industry itself, he noted that in a life insurance contract the insurance company makes more money in direct proportion, rather than in inverse proportion, to the length of life of the insured. In a viatical settlement the investor (in Sandel's example) paid \$50,000 for a \$100,000 death benefit policy insuring the life of an AIDS patient who had been given only a couple of years to live. If the patient died within a year, the investor would earn a 100% return on his capital investment. If the patient lived for two years, the return to the investor was reduced to a 50% annual rate. Thus, the investor's interest in the viatical settlement transaction was contra to the interest of the insured, whereas the insurance company's interest was congruent with that of the insured.

INVESTMENT ADVICE.

Nita Beth and David were advised by a life insurance agent who had brought them the check from the life insurance policy, and his friend Tom, who was a part-time real estate broker and part-time investment advisor. While they were appropriately licensed and may have been fine professionals in their primary fields, probably they were not the best source for financial planning and investment advice that the Sandovals could have used. The choice of investment advisor, even for reasonably sophisticated investors, is nonetheless critical to effective investment decisions and financial planning.

There are numerous sources of advice on how to pick an investment advisor, including the Securities and Exchange Commission (2010), the Certified Financial Planner Board of Standards (2010), and the National Association of Personal Financial Advisors (2010). Generally, they advocate asking potential investment advisors (a) to produce their financial planning credentials, (b) about their experience financial advising, (c) what services they offer, and (d) how they are compensated. They also suggest meeting the advisors face to face, asking whether they have ever been disciplined by any regulatory body, and asking the advisor to explain their investment and financial planning philosophies, strategies, and overall approaches.

Although the case, as presented, does not contain evidence to support conclusions, it appears that had Nita Beth and David asked their insurance agent's friend Tom these simple types of questions, they might have determined that his compensation came directly from the products he recommended to them, and that he had no particular qualifications by training,

experience, or licensure to qualify him to act as an investment advisor. Finally, some discussion of the philosophy and approach to investing and the character of the viatical settlement as an investment, may well have revealed to the Sandoval family that the idea of the investment suggested, although legal, was at least contra to sound public policy, if not abhorrent to ethical investors.

CONCLUSION.

There is no “right answer” to this case. There is no mathematical solution that can be worked to produce a neat financial or investment solution. The tax issues are murky, depending on the facts of each situation. The potential for fraud is mixed into all aspects of the case. Even the insurance issues are not clear. Thus, the case reflects the hard reality of business. The exercise of business judgment is based on experience and education, and it requires critical thinking and the empathy to see situations from the point of view of another. The case can be expected to draw interest in the classroom, and to raise arguments with some emotional content, as well as to challenge the analytical ability of the students given the myriad of issues that are included.

In the situation described, as happened in many viatical settlement investments in the 1990s, the seller Jacob got the money and the benefit of great advances in the treatment of HIV/AIDS, and is still living over a decade later. The investors, David and Nita Beth, ultimately lost their investment capital, as the viatical settlement pool was unable to continue paying the premiums on the policies purchased for the investors, and ultimately failed.

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