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# FINANCIAL AID FRAUD IN A NONPROFIT UNIVERSITY: WHERE WERE THE INTERNAL CONTROLS?

**James Rasalam, Valdosta State University**
**Raymond J Elson, Valdosta State University**
**Casey J Colson, Valdosta State University**

## INSTRUCTORS' NOTES

## CASE DESCRIPTION

*The primary subject matter of this case concerns ethical decision making.  The case has a difficulty level of four, appropriate for senior level.  The case is designed to be taught in one class period of approximately 50 -75 minutes and is expected to require 2-3 hours of outside preparation by students.*

## CASE SYNOPSIS

*Internal control failures within a nonprofit university's financial aid office resulted in the misappropriation of approximately $1 million in grants over a ten-year period. These grants were earmarked for needs-based students but were diverted by office employees to their own accounts and used for personal expenses. Although the problem was identified and reported to the university's president, no action or public disclosure was made for at least two years. A whistleblower notified an online newspaper of the fraud, and it was subsequently reported to university constituents. The university created an action plan to prevent such an incident from occurring in the future and terminated all employees involved in the fraud. The events described in this case are based on a real-world situation as reported in various newspaper and online sources.*

## RECOMMENDATIONS FOR TEACHING APPROACHES

The objective of this case is to help students understand the importance of ethical decision making and utilize critical thinking skills to assess the ethical failures in a nonprofit organization. The case is appropriate for an undergraduate level course with an ethical or fraud awareness component.  Some natural courses include fraud examination, internal and external accounting, and government and nonprofit accounting. The events described in this case are based on real-world situations as reported in various newspaper and online sources.

The case is designed to be taught in one class hour and is expected to require approximately two-three hours of outside preparation by students. No advanced preparation time, other than

reading the case, is required by the instructor. The case can be completed on an individual basis, or as a team-based project. The group size, grading scale, and assigned points are at the specific instructor's discretion. If the case is used as an in-class activity, the students should read the case prior to attending class and the discussion questions should be answered in class. It should take approximately one hour to complete the discussion.

### Learning Outcomes

Students will be able to:

1. Utilize the fraud triangle to examine a fraudulent situation and its aftermath
2. Understand the importance of creating an effective ethical culture or environment within an organization

## DISCUSSION QUESTIONS AND ANSWERS

The student should be able to answer the following (which should help the President in the meeting with the leadership team):

1. *What is the main problem facing the decision maker?*

   The President needs to understand the dynamics within the organization's culture which created the opportunity for the multiple fraud to occur without timely detection.  The President, and by extension the leadership team, must implement measures to reduce fraud risks to an acceptable level.

2. *What kind of problem is this?*

   The problem stems from the lack of ethical decision making as supported by the fraud triangle. The case noted multiple situations in which decisions were made to benefit university employees and not the organization.  For instance, all employees in the Office of Financial Aid had access to the recording functions within the software, and there was no independent review of transactions executed by such individuals.

3.  *What are the key variables for this sort of problem and who is the expert who says so?*

The theory of the fraud triangle developed by Cressey (Crumbley et al, 2018) addresses fraud related issues. Accordingly, there are three components – pressure or perceived un-shareable financial needs, perceived opportunity, and rationalization.   Fraud generally occurs at the intersection of the three components as shown below.

Pre

Rationa

Op
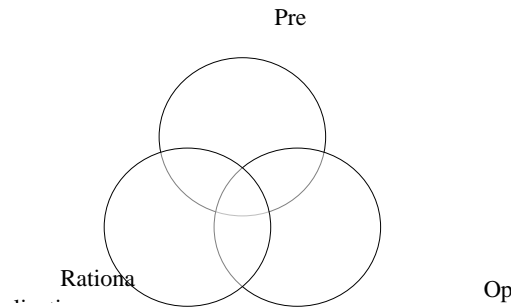
4.  *What are the facts from the case relating to each of the key variables?*

a)  Pressure is often the perception of a need and it does not matter whether the motivation makes sense to others or is based in reality.  This perceived need motivates the fraudsters and can stem from a variety of sources such as a desire to gain acceptance (social pressure), a shortage of resources to provide for a need (health problems, familial need, or debt relief), greed, or many other motivators

The pressure facing all the fraudsters is not clearly stated in the case.  However, one employee's motivation appeared to be driven by social factors. He embezzled $429,612 over a three-year period and allegedly used the funds to finance an extravagant lifestyle.

b)  Opportunity is an environment or temporary circumstance that allows for fraud to be committed, typically with little perceived chance of getting caught or penalized. Windows of opportunity exist for wrongdoing when companies have poor internal controls, weak processes and procedures, unauthorized or unchecked access to assets by employees, or a lack of management review and oversight (Tessier, 2013).

In terms of the case, poor internal controls and a lack of management review and oversight all contributed to the fraud.  For instance, there was no segregation of duties in the financial aid office (i.e., employees could initiate, approve, and disperse awards) Also, there was no reconciliation performed between awarded and approved financial aid amounts.  Finally, since six employees spanning two departments were

involved in the embezzlement, collusion - an internal control limitation - may have been a contributing factor.

c) Rationalization focuses on how the person is internally justifying the fraud. Specific rationalizations are not provided in the case, but the answer might simply be that the individuals believed that they deserved those funds.

5. *What are the alternative solutions available to prevent such fraud from reoccurring?*

In terms of the fraud triangle, organizations are not able to effectively impact two components – pressure and rationalization, since they are more internally driven (or personal). However, organizations can implement measures to reduce the opportunity available for fraudsters to commit fraud.

Potential measures the university could implement include:
a) Establish separation of duties within the financial aid office so that different employees initiative, approve, and disperse funds.
b) Implement an annual ethics and compliance training program for all employees
c) Strengthen the ethics hotline process
d) Perform a reconciliation at least annually between the awarded and approved financial aid amounts
e) Ensure that all financial aid awards are approved by management personnel separate from the financial aid office
f) Establish access controls in the financial aid software

6. *Which solution (or solutions) do you recommend, and the reasons why you feel that solution (or those solutions) should be implemented?*

In looking at the previous response, Item a would be costly since it involves the employment of at least two additional employees and is not the best cost-benefit solution. Item b is generally not effective since employees approach such training as a "check the box" exercise without any intent of operationalizing the material. Item c might involve the hiring of a third party to monitor the hotline. Employees often don't believe that their hotline calls are kept confidential and/or addressed so might not take advantage of this option. Again, this might not be the best cost-benefit solution for the university.

Therefore, the recommended solutions are items d-f. These items are consistent with the measures proposed by the university administration in the case. Collectively, these measures should improve internal controls by addressing some of opportunities for fraud as noted in 4 above. Specifically, the reconciliation of financial aid and the approval of awards will address management review and oversight of the financial aid process. Also, access controls in the financial aid software will limit employees access to assets.

7. *What are the negatives associated with your chosen solution (from question 6)? Why is it still a good solution?*

The organization will need to train management personnel in other departments to perform new tasks. This will create a learning curve while at the same time create resentment in the financial aid office since some of its function will be shifted to other departments. Employees will need to adjust to the financial aid software since their existing access will change. This might create anxiety on employees and a sense of unease since they might believe that management does not trust them. The proposed changes represent a seismic shift in the university, especially in the financial aid office. Therefore, university administration must ensure that the rational is clearly communicated to employees. Although negative aspects exist, the solution is good for addressing the organization's internal control deficiencies.

## DISCLAIMER

This critical incident and teaching note were prepared by the authors and are intended to be used for class discussion rather than determining either effective or ineffective handling of the situation. The events described in this case are based on real-world situations as reported in various public sources.

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# CYBERSECURITY AND MANAGEMENT'S ETHICAL RESPONSIBILITIES: THE CASE OF EQUIFAX AND UBER

**James Rasalam, Valdosta State University**
**Raymond J. Elson, Valdosta State University**

## INSTRUCTORS' NOTES

## CASE DESCRIPTION

*The primary subject matter of this case concerns ethical decision making. The case has a difficulty level of four, appropriate for senior level. The case is designed to be taught in one class period of approximately 50 -75 minutes and is expected to require 2-3 hours of outside preparation by students.*

## CASE SYNOPSIS

*Protecting sensitive customer data and company information has proven to be problematic for some companies. As a result, companies across all industries must be alert to security vulnerabilities that leave them exposed to hackers. This is best illustrated by Equifax, a credit reporting bureau, and Uber, a ride-sharing company, that disclosed data breaches to the public in 2017. These cyber-attacks were far-reaching, with the Equifax breach affecting approximately 145 million customers and the Uber attack affecting 57 million customers and drivers. Management of both companies delayed notifying the public of the data breach on a timely basis and corporate executives may have benefited financially from this inaction. This raises the question as to management's ethical responsibility after experiencing a cyber-attack.*

*The case study focuses on the actions taken by company management to address the respective data breaches. It does not address steps that could be taken by the companies to reduce cybersecurity risk. Students are asked to use the normative, deontological, and consequentialism ethical theories to assess managements' responses to the cyberattacks.*

## RECOMMENDATIONS FOR TEACHING APPROACHES

The objective of the case is to help students understand the importance of ethical decision making and the consequences when an organization takes inappropriate actions. The case is especially important considering increased cybersecurity threats faced by organizations and the need for management to take timely and appropriate action. The case is flexible and can be used at the undergraduate or graduate level in any course that has an ethical component. Some natural courses include internal and external auditing, risk management, and information security.

The case can be completed either as an individual or team-based projects or as an in-class or out-of-class graded assignment. The group size, grading scale, and assigned points are at the specific instructor's discretion. If the case is used as an in-class activity, the students should read the case prior to attending class and the discussion questions should be answered in class.

Depending on usage, instructors should ensure that a discussion of the ethical theories of virtue, duty, and consequentialists occurs prior to the case completion.

**Learning Outcomes**

Students will be able to:
1.  Understand the normative, deontological, and consequentialist ethical theories.
2.  Use the theories to assess managements' responses to cybersecurity threats.

**Case Implementation and Effectiveness**

The case was class tested in an undergraduate auditing class in fall 2018 (n=36). Starting this fall, students in this course completed several "ethics on action" assignments, including becoming members of the Student Center for the Public Trust (Ethics) Chapter sponsored by the National Association of State Boards of Accountancy (NASBA).

The case was assigned as a group project (groups of four members) and students had a lecture on ethics and ethical theories prior to answering the discussion questions. Students also had the opportunity to research ethical theories on the internet.

The students reported that it took approximately 2-3 hours to complete the assignment. This was inclusive of readings on the ethical theories, the actual reading of the case on an individual basis, and the group meeting(s) to formulate cohesive solutions to the discussion questions.

Overall, the students found the case interesting, easy to read, and thought it was appropriate for classroom use. Furthermore, they noted that the case was useful in helping them understand the referenced ethical theories. The students also supported the use of the case to demonstrate ethical theories in future semesters.

The case was also class tested in spring 2019 in an undergraduate auditing class and students provided the feedback noted below.

| Scale: Strongly Agree (5) to Strongly Disagree (1) | n=19 |
|---|---|
| | Mean |
| This case helped me to learn new information | 4.7 |
| This case caused me to think critically about the issues presented. | 4.7 |
| The case presented a topic that was worthwhile to discuss | 4.7 |
| The case content was interesting to me | 4.4 |
| The instructions and background information in the case was clear | 4.5 |
| This case was a positive learning experience | 4.6 |
| The case requirements were appropriate for the material presented in the case | 4.5 |
| Class discussion of this case improved my understanding of the case content | 4.6 |
| Class discussion of this case caused additional critical thinking | 4.7 |

As noted above, the spring 2019 students provided overall positive feedback on the case; this is consistent with the feedback received from the fall semester students.

## DISCUSSION QUESTIONS AND ANSWERS

Students should be able to:
1. *Use the normative, deontological, and consequentialism ethical theories to evaluate managements' responses to the respective cyberattacks.*
2.

   [**Note to Students**:   The table provided in Appendix A should be used to formulate responses   Information on ethical theories can be found in the ethics chapter of an auditing textbook or on the Internet. One suggestion is https://owlcation.com]

   See Appendix A

3. *Comment on which organization responded to the cyber-attack in a more ethical manner (based on Appendix A).*

   The answer is not as unambiguous since it depends on the ethical theory utilized.  The analysis in Appendix A suggests that both company management acted in an unethically in their responses to the cyber-attack, based on the normative and deontological ethical theories. However, Equifax but not Uber acted ethically under the consequentialism theory. As noted in the table, Equifax's cost-benefit assessment deemed 40 days an appropriate time to implement controls before disclosing the data breach to the public.

## EPILOGUE

Equifax

After a review of the security transactions, the SEC charged Equifax's chief information officer with insider trading. Due to the nature and extent of the breach, the CEO and two executive officers either resigned or retired from their positions and were replaced (Popken, 2017). The former CEO also apologized for the data breach and the subsequent response and will receive a pension valued at $18.4 million (Puzzanghera, 2017).

As a means of providing a remedy to consumers, including those whose information was not stolen, Equifax's management created a relief package that would be freely provided to all who requested it. The relief package provides monitoring of consumer credit files across all three credit bureaus, access to Equifax credit files, the ability to lock the Equifax credit file, an insurance policy to cover out-of-pocket costs associated with identity theft; and dark web scans for consumers' social security numbers (Hendry, 2017). Equifax's former CEO believes that due to the benefits gained from the services within the relief package, there will be better protection for consumers.

Uber

In 2017, a new CEO was chosen to lead the company to change the organization's culture. Under the prior leadership, one of the Company's values was to "toe-step" or to not be concerned about offending others.  This value has been changed under the new leadership to simply "doing the right thing. Period" (Isaac, 2017).

In April 2018, the company reached a settlement with the US Federal Trade Commission (FTC) in which it agreed to 20 years of cybersecurity audits.  Uber is now required to provide the FTC with bug bounty reports related to all vulnerabilities concerning customer data, and all reports

from third-party audits.  The company will be subject to civil penalties if it fails to notify the FTC of future incidents involving unauthorized access to consumer information. In September 2018, Uber agreed to pay $148 million to various states in connection with the data breach and the subsequent cover-up.

      Uber began trading on the New York Stock Exchange as a public company in May 2019.

## DISCLAIMER

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## Appendix A

|  |  | Evaluation of Management's Ethical Response | |
| --- | --- | --- | --- |
| **Ethical Theories** | **Brief Summary of the Theory** | **Equifax** | **Uber** |
| (a) Normative or virtue-based (Aristotle) | Emphasizes the importance of developing good habits of mind and character. These are often formed when young and includes wisdom, courage, honesty, temperance, and justice. | Equifax waited 40 days before notifying the public of its data breach. During this time frame (before the public notice), certain executives sold company shares thus achieving financial gains. One of the executives was referred to the Securities and Exchange Commission (SEC) for prosecution. These actions are not examples of a company being virtuous or "doing the right thing." Thus Equifax is unethical under the Normative theory. | Uber's management delayed public notification of the cyber-attack for approximately one year. It also paid hackers who signed a non-disclosure agreement to keep the breach private. These actions suggest a "cover-up" on management's part. As such, management is not ethical under this theory. |
| (b) Deontological or duty- based (Kant) | The morality of an action should be based on whether the action itself is right or wrong under a series of rules For instance, we should always treat people with dignity. | Equifax is in the credit reporting industry and has a duty to protect the confidential data in its files. Executive management was informed of a vulnerability in its storage software two months before the cyber-attack. Management accepted this risk and elected not to patch the system but instead periodically monitor the problem. By failing to address this | Uber delayed the reporting of its data breach to the public and authorities for approximately 11 months. The company hid the information by paying the hackers who signed a non-disclosure agreement to keep the cyber-attack private. Uber failed in its duty to report such cyberattack in a timely manner so that the affected parties could take |

| | | issue in a timely manner, *Equifax violated its duty* and placed millions of customer personal information at risk. | appropriate action to protect their personal information. |
|---|---|---|---|
| (c) Consequentialism | Moral conduct is determined solely by a cost-benefit analysis of an action's consequences. Therefore, an action is morally right if the consequences of that action are more favorable than unfavorable. | Management's cost/benefit analysis suggests that 40 days was a reasonable time to wait before disclosing the cyber-attack. This time allowed management the opportunity to assess the severity of the breach and to take appropriate action to address the security vulnerability. Management also notified the FBI of its breach. Equifax investigated the executives who sold stocks during this period and exonerated most from insider trading. However, one executive was reported to the SEC for prosecution. Equifax's actions were more favorable than unfavorable and so it acted in an ethical manner under this theory. | Uber management paid hackers who also signed non-disclosure agreements to maintain the secrecy of its cyber-attack. The payments were made in violation of existing FBI protocol. Management failed to disclose the cyber-attack to its own board in a timely manner. It also waited approximately a year before disclosing the data breach to the public. Uber's management appears to be more concerned about protecting its own interests and not the interest of its stakeholders. As a result, its actions are unethical under this theory. |

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# COFFEE-INFUSED COKE? YES PLEASE!

## Ahmed Maamoun, University of Minnesota Duluth

## INSTRUCTORS' NOTES

### CASE DESCRIPTION

The subject of coffee on its own boasts many different avenues for study and discussion. But when coffee is combined with the multi-national beverage corporation Coke, topics and options to approach a case become innumerable. Instructors will have plenty of opportunities to engage students and boost participation. This case is ideal for a junior or senior class on branding, marketing strategy, retailing, green marketing, or principles of marketing. It is designed to stimulate discussion about marketing and growth strategies, globalization, merges and acquisitions, positioning, and retail footprint. This case is an excellent vehicle for demonstrating how a single growth decision by a major player can send shockwaves through an entire industry. The case is designed to be taught in a 60-75 minute class, and is expected to require 3 hours of outside preparation by students.

### CASE SYNOPSIS

Coffee is a majestic beverage that can quite possibly connect the world together. The Coca-Cola Company is the world's largest beverage corporation, offering over 500 brands to consumers in 200 countries. However, Coca-Cola has not had a hot drink in its product mix, nor has it had a major retail footprint. With the growth in coffee and hot beverages, the company felt that the timing was right for it to make a thoughtful and significant investment in that category. In August 2018, Coca-Cola paid £3.9 or $5.1 billion to buy the U.K.-based coffee company, Costa, giving Coke its entry into the hot drink market. The obvious objective is to tap into the coffee market – mostly with the aim of debuting new products, as sales of carbonated soft drinks (CSD) are down while coffee is up.

Costa Coffee has almost 4,000 stores (approximately 2,500 in England and 1,500 in Europe, Asia, and Africa). Additionally, the company owns and operates 8,000-plus fresh espresso-based vending machines, called Costa Express (mostly in Europe). The U.S. is the largest coffee market in the world, and Americans drink 450 million cups of coffee daily. Costa does not have any stores in the U.S., and the brand is not known to American consumers. However, the surprise acquisition has sent shockwaves throughout the global coffee industry. Costa's sale to Coca-Cola could be viewed as a direct challenge to the dominance of Starbucks in the global arena that includes the U.S. Costa has more U.K. stores than Starbucks and has been growing globally at a phenomenal rate. Add Coca-Cola's might and reach to the equation, and we may see fierce "Coffee Wars" soon. The coffee battle has just begun because of Coke's unquenched thirst for staying the number 1 beverage company in the world. Coffee-infused Coke sold all over the globe (including the United States) is almost a reality at this point.

## SUGGESTED TEACHING STRATEGY

To many people, drinking coffee is a daily ritual. Instructors won't have any issues getting a discussion going. If the case is taught in green or social marketing, the instructor could start the case discussion by asking questions like: "I cannot start my morning without a cup of Joe. Do you drink coffee every day?" "If you drink coffee, do you know where it comes from or the kinds of labor used to produce it?" "Does it make a difference in your decisions about whether or not to purchase the coffee?" "Besides coffee, what other commodities that are not produced in the U.S. do you use frequently?" "How does coffee tie the world together?" "Are you willing to pay more for a sustainable cup of coffee?"

The author has noticed that many students are not aware of or do not pay a lot of attention to the origination of the beans that were used to produce the cup of coffee they drink at home or at a café. Were the beans grown in Brazil, Colombia, Ethiopia, or Vietnam? In sustainability or social marketing classes, instructors may bring up *National Geographic's* "Beyond the Bean" website, and depending on unfilled class time, show a video or two from the "stories" section. An intriguing discussion topic is whether coffee is a sustainable product. About 25 million families produce coffee in roughly 20 countries. Arguably, international coffee bean prices are historically low and unsustainable. Even fair trade prices are not sufficient to cover growers' production costs, let alone provide enough for growers to make a living for themselves and their families. If the case is used in a general marketing or branding class, the instructor could start the case discussion by listing some brands and asking students whether each brand is owned by Coca-Cola.

1) Dasani
2) Mountain Dew
3) Tostitos
4) Gatorade
5) Powerade
6) Georgia Coffee
7) Snapple

Unless the students are using the Internet and looking up answers, it is highly improbable they would get all seven answers correct. This becomes a perfect segue to talk about branding and product lines. Showing a one-minute video about the Costa purchase and/or bringing up the Costa Coffee website will naturally divert the discussion to topics like growth strategies, retail footprint, and brand extensions.

Bringing up the "Cola Wars" tends to liven up the discussion. Coca-Cola's competition with Pepsi is global. As with many corporations, there is frequent confrontation with competitors in nation after nation. The world's great rivalries and duopolies, for instance, Ford and Toyota, Boeing and Air Bus, Caterpillar and Komatsu, FedEx and UPS, MasterCard and Visa, and—perhaps most iconic of all—Coca-Cola and Pepsi, seem somewhat enigmatic. If a firm moves into a nation that is not currently served by its rivals, those rivals invariably follow to prevent their competitor from gaining an advantage. Asking students to speculate what Pepsi's next move might be in response to the Costa acquisition or the prospects of "Coffee Wars" with Starbucks and McDonald's will foster intriguing discussions.

Since this is a descriptive case with real companies and industries, the instructor may ask students to go online after the discussion is over and find updates on the coffee industry, Coke, Costa, Pepsi, and Starbucks. With this playing out with major corporations in real time, genuine excitement should be felt by the class to see what Coca-Cola does with Costa and what Pepsi does with SodaStream. Note that as the case ages, there might be a discrepancy between the information in the case and the information available online.

This case can be used in a class with a timeframe of 60 to 75 minutes (see Table 1).

**Table 1. Teaching Plan Based on a 75-Minute Session**

| | |
|---|---|
| Case Overview | 10 minutes |
| Discussion of threats and opportunities in the coffee industry | 15 minutes |
| Evaluation of Coke's growth strategies | 15 minutes |
| Discussion of pros and cons of mergers and acquisitions | 10 minutes |
| Debating which company will dominate the coffee market in the future | 20 minutes |
| Update on the case | 5 minutes |

## DISCUSSION QUESTIONS AND SUGGESTED ANSWERS

### 1. Why has coffee become popular in the United States?

Coffee is arguably the most popular beverage in the world, with more than 400 billion cups consumed each year. More than 450 million cups of coffee are consumed only in the United States daily. In 2018, 64 percent of Americans drank a cup of coffee every day, up from 62 percent in 2017. Two industry breakthroughs occurred in the early 2000s when coffeehouses like Starbucks and Caribou, and new technologies like Keurig pods slowly became an integral part of the American coffee culture. Starbucks Corporation began in 1971 with one store in Seattle, Washington. Three entrepreneurs—Gordon Bowker, Jerry Baldwin, and Zev Siegl—founded the business. They named it after a character from Herman Melville's classic novel *Moby Dick* who was obsessed with coffee, and they developed the now iconic mermaid logo. Starbucks originally sold bulk tea and specialty coffee beans by the pound. The business's idea for coffee bars started in 1984 from the company's marketing director, Howard Schultz. A year later, Schultz quit his job to start a chain of espresso cafes like those he had seen in Milan, Italy. He called his cafes Il Giornale, and they served Starbucks coffee. In 1987, Schultz bought Starbucks from its three founders for $3.8 million. By 2018, the company had 28,000 locations in 75 countries and 291,000 employees. Revenue that year was $24.7 billion.

In an effort to compete with Starbucks in the breakfast business, Burger King and McDonald's introduced upgraded coffee blends, brewing procedures, and packaging. Burger King launched its "BK Joe" branded, made-to-order coffee program nationwide in October 2005, while McDonald's started selling its premium coffee in 2006. By 2017, the retail value of the U.S. coffee market had been estimated to be $48 billion dollars with specialty coffee comprising approximately 55% of sales or $26.4 billion. The Specialty Coffee Association defines specialty coffee as "a coffee that has no defects and has a distinctive flavor in the cup." With specialty coffee doing so well, many firms were flaunting their offerings in this category. For example, McDonald's relaunched its McCafes with a new line of caffeine-powered drinks: Caramel

Macchiato, Cappuccino, and Americano, all for a limited time for $2.00. Coca-Cola is capitalizing on this popularity and has jumped on a fast-moving bandwagon.

## 2. Coke is developing strategies targeting teens and Millennials. Evaluate the strategy.

Millennials, people born between 1979 and 2000, spend about $600 billion a year. Companies are scrambling to develop loyal relationships with this large and growing market. The Millennial generation is three times larger than Generation X, and by 2030 Millennials will outnumber non-Millennials (Fry, 2018). Right now (2019), the youngest Millennials are attending colleges and the oldest are buying homes. They are health-conscious and care about what they ingest, turning away from sugar-sweetened beverages. They also love customization and will personalize anything. Coke's "Share a Coke" campaign is a good example of how the soda giant is connecting with its consumers on a more personalized level. Pepsi's Spire, the iPhone-inspired rethink of the soda fountain machine, was a vivid way to connect with this demographic. Pepsi was not first in this market—Coke was with its Freestyle—but its latest version is very slick with a touch screen that offers as many as 1,000 flavor combinations.

Coke is attempting to diversify their beverage portfolios with less sugary drinks. Coca-Cola has invested in juices, teas, coffees, and beverages made with organic and natural ingredients. It has also been reducing sugar, using alternative sweeteners throughout its existing portfolio, and offering smaller can sizes. As the CSD market shrinks due to health concerns, the beverage industry leaders have been looking for new paths. One recent deal concluded by Coca-Cola was to buy U.K.-based coffee company Costa, giving it entry into the hot drink market. And now PepsiCo has announced that it is buying do-it-yourself carbonation company SodaStream International. Unlike sugary soft drinks, SodaStream has taken advantage of the growing market for seltzer beverages. Consumers like that seltzers do not have sugar and are calorie-free. This gives consumers drinks that are healthier than the traditional soda drinks. Besides, the do-it-yourself carbonated drinks can be tailored for individual tastes with different fruits and flavors added to the drinks (something teens and millennials cherish).

## 3. The soft drinks industry is in the maturity stage. How could Coke and Pepsi reposition or revise products so that they can move into an earlier stage of the life cycle?

It's a tough time for soda sellers. Consumers are turning away from sugary drinks and hollow calories. Soft drinks sales have been in decline since 2005, falling 3% in 2013 alone, according to market research publication Beverage-Digest (Wahba, 2014). Coke and Pepsi have both posted negative yearly sales changes for the last 15 years. If the two soda giants think soda's salvation lies in the word "Diet," they better think again. Health experts have for years rejected the perception that "diet" soda is a healthy alternative. Now, consumers are distancing themselves not just from sugar-sweetened drinks, but also their artificially-sweetened ingredients. Besides emerging consumers' health consciousness, Coke and Pepsi have to deal with the threat from sugar taxes and warning labels.

Obesity rates have continued to climb in recent decades. The government and people's fingers pointed at fast food restaurants and soda drinks companies. Some cities in North America

have even proposed and are working on enacting warning labels on soda drinks. San Francisco, for instance, has passed a law adding a warning labels of CSD products. The label reads: WARNING: Drinking beverages with added sugar(s) contributes to obesity, diabetes, and tooth decay. This is a message from the City and County of San Francisco (Steinmetz, 2015).

Facing mounting pressure to improve their products, both when it comes to calories and overall nutrition, they're eagerly shifting the attention—or blame—from their products to the American public. The message is: You are just not moving enough to burn off all the calories you are ingesting. In 2015, Coca-Cola and Pepsi, along with the American Beverage Association, launched Mixify, a campaign that emboldens young CSD drinkers to "mixify" their balance of sugared drinks and exercise, implying it's OK to indulge more if they work out on a regular basis (Parker, 2015). The Coca-Cola Company released a statement: "At **Coke**, we believe that a balanced diet and regular exercise are two key ingredients for a healthy lifestyle and that is reflected in both our long-term and short-term business actions", wrote the company's Chief Technical Officer[i].

Coke and Pepsi will have a hard time convincing their customers that their core iconic beverages are healthy. Even their diet and zero-sugar versions will not stand a chance making this argument. The new messaging is that our products can supplement a healthy and active lifestyle. If you exercise and watch what you eat, it is OK to indulge a little and have a refreshing cold drink to reward yourself.

## 4. Do you think the Costa acquisition was a good move?

While American consumers might not be conversant with this U.K.-based coffeehouse, Costa has almost 4,000 stores, and is the third largest coffee seller in the industry (behind Starbucks and McDonalds). The acquisition instantly provided Coca-Cola a strong coffee platform across parts of Europe, Asia Pacific, the Middle East, and Africa. By acquiring Costa, Coca-Cola adopted a new growth strategy by adding retail footprints in many Fparts of the world. Costa leads in the British market with almost 2,500 stores (Starbucks has 335 stores). The company is also doing relatively well in China with almost 460 stores. Although Starbucks dominates the Chinese market with 3,600 stores and has plans to add an additional 2,400 outlets by 2022, the Seattle-based company cannot undermine the ramifications of competing with the largest global beverage company in such an important market. The combination of Costa's coffee capabilities and Coca-Cola's marketing and distribution expertise cannot be overlooked by any player in the coffee industry. Costa Coffee is the number one coffee shop brand in the U.K., and has been named the nation's favorite coffeehouse for the past nine years. Costa's acquisition by Coca-Cola is also arguably a direct challenge to the dominance of Starbucks in the U.S., even though the British coffee chain does not have a single store in America. It is noteworthy that the deal also includes 8,000-plus fresh espresso-based vending machines, called Costa Express, which can be found in supermarkets, movie theaters, and sports venues (mostly in Europe).

### 5.  What else is "brewing" in the beverage industry?

Coca-Cola's move into coffee is part of a rising trend from CSD manufacturers who are trying to find ways to thrive even as consumers move away from sugary and unhealthy drinks. The situation gets worse as states and cities are contemplating imposing soda and sugar taxes. Such a move instantly places Coca-Cola in direct competition with prominent and well-established coffee sellers like Starbucks, Dunkin' Donuts, and McDonald's in a global market that is growing at a wild pace, in contrast with that of its conventional business. Coke's surprise move is not that strange after all as many beverage companies have been undertaking acquisitions recently to be in markets that seem to have better prospects. The bottom line is that the global beverage industry is diversifying into hot and cold tea and coffee, as health-conscious consumers turn away from sugary drinks to enjoy custom-made flavored waters and barista-quality coffee at home or on the go. A good example would be the 2018 merger of Dr Pepper Snapple and Keurig Green Mountain (McGrath, 2018). Also, Nestle and Starbucks have reached a $7.2 billion global coffee alliance, giving Nestle the ability to sell and distribute Starbucks products outside its stores worldwide. On a different front, JAB, the Luxembourg-based holding company that owns brands like Krispy Kreme and Peet's Coffee, bought UK sandwich and coffee chain, Pret A Manger in May 2018.

Coke's historic chief rival, Pepsi, has announced that it is purchasing the Israeli do-it-yourself carbonation company, SodaStream. The company manufactures a small appliance that carbonates water by adding carbon dioxide from a pressurized cylinder to create drinkable soda water. SodaStream has taken advantage of the growing market for seltzer beverages and has managed to grow its customer base from 4.5 million in 2012 to 12.5 million customers. Seltzers do not have sugar and are calorie-free, hence giving consumers drinks that are healthier than the traditional soda drinks. Additionally, do-it-yourself carbonated drinks can be tailored to individual tastes with different fruits and flavors added to the water. This product appeals to consumers who are considering healthier, more environmentally friendly styles of cold beverages.

Coca-Cola is also tinkering with two exotic product lines, liquor and marijuana. The company is launching a new product line meant to be mixed with whisky, rum, and/or bourbon (Ritschel, 2019). And in a more unorthodox business move for Coke, the company is investigating the cannabis business. Making drinks infused with cannabidiol (CBD), the non-psychoactive chemical found in marijuana plants, is on the beverage company's radar (Hale, 2018). Venturing into that market is not that farfetched as more states are legalizing marijuana. While the business of fizzy soft drinks continues to struggle, Coke is meeting the challenge head on by exploring opportunities in coffee, liquor, and pot! The beverage war continues!

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# MAGNUS YOUTH LEAGUE – A CASE STUDY FOR SOCIAL RESPONSIBILITY AND APPLICATION OF STAKEHOLDER THEORY

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## INSTRUCTORS' NOTES

## CASE DESCRIPTION

*This case is well-suited to an introductory-level management class where curriculum includes concepts of stakeholder theory and corporate social responsibility. In addition, this case would be relevant for public administration courses or first year graduate students pursuing a Master of Public Administration degree since it addresses nonprofit organizations and social responsibility. The primary subject matter for this case concerns identifying stakeholders, their various needs and expectations from a nonprofit organization, and the application of social responsibility in the nonprofit sector. Secondary issues include nonprofit funding and volunteer recruitment. This case imposes the Corporate Social Responsibility (CSR) framework onto a nonprofit scenario, highlighting the need to deliver multiple outcomes for the varied stakeholder group expectations.*

*This case has a difficulty level of three-four (junior-senior level) and is designed to be taught in less than two class hours with less than two hours of outside preparation time by students.*

## CASE SYNOPSIS

*There is a growing demand for organizations to conduct their business in an ethical manner. Many corporations fall short of this mission, but there is a growing demand for the application of Corporate Social Responsibility (CSR) to their core business practices. Many believe that CSR can only be applied to the for-profit sector, but in reality, is applies to all forms of organizations including government entities, service providers, for-profit and nonprofit organizations. Recognition of stakeholders is key in developing business strategies that aspire to adopt CSR principles.*

*Students will be presented with background information on Magnus Youth League, a nonprofit which offers a variety of youth sports programs for the Malheur County in Oregon. Bernie Macgruber, the new Executive Director for Magnus, faces the daunting task of revitalizing this nonprofit to deliver much needed direction and mentoring for the youth in this community.*

## TEACHING RECOMMENDATIONS

This case offers a teaching opportunity for the stakeholder theory and corporate social responsibility (CSR) principles to be explored and applied in the nonprofit sector. The first teaching approach is to ask students to differentiate stakeholders into their two classifications of

primary and secondary stakeholders.  This is sometimes a difficult concept for students to grasp; therefore, discussing the various types of stakeholders an organization may encounter will help the students in their fully understanding the stakeholder theory.  Then, direct the discussion into the topic of corporate social responsibility and make sure students understand the concepts of CSR and how they can be applied to any type of business.  From here, have students consider how the stakeholder theory and CSR can be implemented in nonprofit entities, but more specifically to Magnus Youth League.  An alternative to this approach would be to assign students one or all of the case's questions to work on in class or as an at-home written assignment.  After the assignments are completed, the students can reconvene to discuss their different approaches to applying the stakeholder theory and corporate social responsibility to Magnus Youth League in addition to how it compares and contrasts to for-profit entities.

## CASE QUESTIONS

1. How might it be argued that Magnus Youth League is not currently demonstrating social responsibility to its stakeholders? Explain your perspective referencing the four levels of corporate social responsibility.

    Although students may assess the situation differently, social responsibility has the following four components that need to be explored in their response:

    a. Economic Viability:  Even though Magnus Youth League has been able to receive operational funding from government grants and private donations, the current availability of funding has been constrained.  The organization's economic viability is questionable at best.  In addition, Magnus' advisory board informed Bernie that funding for the organization had been dwindling the past several years.

    b. Legal Compliance:  The case does not state that Magnus Youth League has been out of compliance with any legal and regulatory requirements.  Even so, the organization should be concerned about potential litigation regarding athlete's safety because of inadequate, unsafe sports equipment being issued to the youth.

    c. Ethical Responsibilities:  Magnus' performance to ethical expectations may be challenged by students.  The Magnus Youth League is in existence for an admirable and ethical cause: to prepare Malheur County's youth for greatness in sports and in life.  But, Magnus is struggling to take care of their ethical responsibilities in other areas. The organization's registration process is inefficient due to the absence of technology and inadequate office space.  Consequently, they are not able to take care of their athletes and their parents in a timely manner leading to frustration by all.  The employees are struggling as well.  They do not know their exact job roles and were not working well together.  The case does not state whether the organization provided any employee benefits.  Therefore, a source of the employees' frustration may be that they do not feel valued by Magnus.  Furthermore, Magnus was issuing potentially unsafe sports equipment to the athletes.  If the youth are one of the most important stakeholders for the organization, their safety should be of the utmost importance.

    d. Discretionary and Philanthropic Responsibilities:  Magnus Youth League is struggling to take care of the first three components of social responsibility.  Therefore, there is no evidence stated in the case that Magnus is even in a place where they could think about their discretionary and philanthropic responsibilities.

2.  What primary stakeholder groups are most important to the Magnus Youth League mission considering their respective power, legitimacy, and urgency? What potential outcomes will they expect from the program?

    There are numerous primary stakeholder groups that are important to the Magnus Youth League.
    a.  The children and their families are key primary stakeholder groups for this organization that have an enormous amount of power, legitimacy, and urgency. Magnus Youth League was established to serve the children. Consequently, if they aren't participating in the sports programs offered by Magnus, there will not be a need for the organization. The athletes and their parents want an organization that is going to provide an excellent and affordable sports program. In addition, the children and parents are going to expect safe equipment to be issued as well as nice looking jerseys that the children can take pride in wearing. Furthermore, they probably expect coaches who will be present at the majority of practices and games.
    b.  Magnus Youth League's employees are essential as the program wouldn't exist without their efforts of organizing and working the sports program's events. Consequently, the employees hold immense power, legitimacy, and urgency. The greatest asset an organization can have is its employees. With this in mind, employees want a nice facility to work in; they want clearly defined job requirements and expectations; and they need pertinent technology to complete their daily tasks to the best of their ability. Furthermore, employees want to feel as though they are a valued member of a team. Therefore, employees almost expect various types of employee benefits, such as health insurance, from an organization to demonstrate their appreciation.
    c.  Magnus also depends on the primary stakeholder groups of their advisory board, volunteer team coaches, donors, and the government entities providing grants. These stakeholder groups support the organization with their giving of resources (i.e. time and/or money). All of these stakeholders can possess power, legitimacy, and urgency, but it is not going to necessarily be on a daily basis. Again, Magnus needs the giving of time and/or money from these stakeholder groups to operate its organization. But, as long as Magnus is doing a good job in fostering these relationships; demonstrating their appreciation for their donations; and correctly and ethically managing the organization and its finances, these stakeholder groups are probably going to be relatively quiet.
    d.  Finally, Malheur County, the communities within the county; and the county's schools are also important primary stakeholder groups. It stated in the case that Magnus had established great community support and effective community relationships with the county's schools. Taking this into consideration, these stakeholder groups could have significant power, legitimacy, and urgency. But, these attributes will not necessarily be utilized on a consistent basis, unless they feel that Magnus isn't fulfilling their responsibilities to the area and its children. The success of Magnus Youth League could have a considerable impact on the area; therefore, these primary stakeholder groups want to see Magnus succeed. The children participating in the sports programs are going to be the area's future. With that said, children can learn countless valuable lessons from not only participating in the sports but also from the mentoring of the teams' coaches. These life-long lessons can help these children become successful, productive residents, which

will only help the communities grow stronger and more financially viable and economically sound.

3. What new stakeholder groups could be tapped to advance the Magnus Youth League's cause, particularly with respect to building a donor base and recruiting volunteer coaches?

There are several new stakeholder groups Magnus Youth League could tap into to advance the growth of their program and further their cause. First, Magnus could gain more participants by partnering with other sports program providers that may have knowledge of other children wanting to participate, but do not have the financial means to do so or have new ideas for sporting events to attract new athletes. Magnus could also tap into student's extracurricular organizations and high school student athletes to recruit volunteers for the program's sports events. As the Magnus Youth League's sports programs grow, so will the need for funding and volunteers. There could be potential foundations and additional government grants that Magnus should look at pursuing. In addition, there could be community organizations and individuals that could provide both financial resources and volunteer hours for the program's development and growth. Furthermore, since this a largely agricultural area, there will be larger farms and businesses that Magnus should propose partnerships with. These partnerships could include establishing volunteer programs and additional sources of funding for Magnus Youth League.

4. With regard to corporate social responsibility, what does Magnus Youth League need to do to fulfill its mission of, "Preparing Malheur youth for greatness in sports and in life."?

Students' answers will vary, but should reflect their understanding of the widely accepted definition of corporate social responsibility and its four components in relation to Magnus' mission statement.

a. Economic Health: This is a requirement by society and the most basic social responsibility. Therefore, for Magnus Youth League to continue to provide their sports programs to the community, it needs to take progressive steps to secure funding for financial viability. This could entail finding new donors, such as larger industrial farming companies that can make substantial donations or sponsor sports teams. In addition, Magnus could pursue and apply for new government grants. Magnus should also try to obtain donors who can contribute on a monthly basis. Finally, Magnus could explore the possibility of organizing fundraising events such as galas, concerts, and auctions to supplement their finances.

b. Legal Compliance: Again, this is required by society. An organization needs to abide by the regulations and laws set by regulatory and governmental agencies as it conducts business in an effort to meet its economic responsibilities. This includes accurate recordkeeping, especially when government grants are concerned. Additionally, the case states that Bernie doubted the sports equipment was even safe to use. Given this information Magnus could be facing potential legal claims if a child is injured while using the sports equipment. Lawsuits can cost organizations an exorbitant amount of money, which could possibly compromise Magnus' economic health. This could potentially inhibit the Magnus Youth League's ability to even offer their sports programs.

c.  Ethical Responsibilities:  Society expects organizations to conduct themselves in an ethical manner.  This means doing what is right even when the business is not required to do so by law.  The first thing Magnus Youth League could do would be to acquire computers to streamline the registration process for the organization as well as the participants and their parents.  Second, new office space is a must for Magnus.  The current office space is not adequate for the employees to perform their jobs and serve the athletes.  Third, attention needs to be given to Magnus' employees.  Magnus Youth League must hold their employees accountable; help them understand their job roles and responsibilities; and provide team building training.  This will help the employees to work in a more cohesive manner as a united team.  In addition, if Magnus wants to be competitive with for-profit organizations and retain top talent, it is necessary to provide employee benefits such as health insurance or wellness programs.  When organizations take care of their employees, the employees can better care for their clients.  Fourth, although it is not required for Magnus Youth League to offer new or slightly used sports equipment, it is an ethical responsibility to provide safe, functional equipment for the safety of their athletes.  Finally, Magnus could provide mentoring training to coaches.  This would further assist the coaches to instill the qualities of teamwork, integrity, and perseverance in the athletes to better prepare them for greatness not only in sports, but also in life.

d.  Discretionary and Philanthropic responsibilities:  Discretionary and philanthropic activities that are desired by society refer to endeavors a company fulfills beyond its economic, legal and ethical responsibilities.  Magnus Youth League could create a scholarship program for children that may not have the financial means to participate in the sports programs.  To take this one step further, Magnus could establish scholarships for former program participants pursuing post-secondary education opportunities.  In addition, Magnus Youth League could approach larger companies within the community and work with them to establish corporate volunteer programs.  Through these programs, the company's employees would have the opportunity to volunteer for Magnus.  In turn, this could help Magnus find more reliable coaches who could attend the morning games.

## EPILOGUE

### The First Month

The Magnus advisory board expected quick improvements from Bernie. To meet their expectations, a critical priority would be to increase Magnus funding. He needed cold, hard cash to establish a larger area facility, to purchase new sports equipment, for promotion, and to increase coaching and staffing incentives. Each of these would directly impact the image of the Magnus League and the morale of everyone involved with the program.

He needed to consider his available potential resources. Most of the money made in Malheur county came from cattle ranching, a $112.2 billion industry as of 2018, and most of the cattle rangeland was owned by the Bureau of Land Management, U.S. Department of the Interior. The two largest agribusiness companies in Malheur County, Ore-Ida and Simplot, controlled the $11 billion potato industry in the area. This represented just a fraction of the total $110 billion crop industry, which was largely driven by private farmers (Malheur County, n.d.). Bernie did a quick internet property search to identify the largest area landowners and soon had a lengthy list of potential donors to call.

He would make a few phone calls to set up introductory meetings with the Marketing VP at Ore-Ida and Simplot. If he could persuade these companies to invest in their local youth, the monetary impact could be a tremendous boost to the program. Bernie mused, "Maybe we can add their names to the jerseys and put up banners at the games to recognize their contributions. I need a way to make it a win-win for them to help."

Finally, Bernie decided to investigate potential federal grants that might be available for Malheur county youth, poverty abatement, and/or community development. There was a lengthy list of potential options, but these would take longer to bear fruit.

It was late now, but Bernie was satisfied that he had a good list of funding avenues to pursue starting next week. "Now," he mused, "what do I need to do with my staff? The bickering and in-fighting simply cannot be allowed to continue." He pushed his chair away from the desk, walked out of his little office and into the larger office workspace, and took a long look around the room. Then he went to work, moving furniture and organizing the mess. It was long past dark when he headed home.

When everyone walked through the door on Monday morning, Bernie's desk was now located where the piles of equipment had been sitting along the back wall, and equipment and jerseys were all neatly organized on two large shelving units in what has been his office the Saturday prior.

In the next week, Bernie shadowed each staff position to learn how the office ran and what the trouble areas were. Something about Bernie planting himself in the middle of the action made it clear to everyone that it would no longer be "business as usual." And with someone now in authority that was so interested in improving processes and making things better for the kids, it wasn't long before everyone in the office wanted to contribute to the improvements with their own suggestions. Bernie also implemented a cross-training program so that everyone understood all the other office functions and could pitch in to help when needed.

## Six Months Later

Bernie sat in the bleachers of the Ontario Community Center basketball court, surveying the game in front of him. He was pleased. The kids looked wonderful in their new jerseys, compliments of the Simplot Company and a few of the local growers. He noticed a couple of these farmer benefactors were also in the stands. Bernie caught the eye of the Coach Jameson and shot him a quick thumbs up. It had been a great idea to recruit coaches from Treasure Valley Community College, right here in Ontario. Many of these students were just itching to build rapport with the area farmers and big-business agriculture companies and coaching for Magnus gave them an excellent way to demonstrate their soft skills. It ended up being a significant win-win for them and for Magnus.

Actually, several of Bernie's outreach efforts to area businesses were developing into substantial alliances. Magnus would soon be partnering with the Community College to support their Leisure Studies program with internships, not only with coaching but also with program design and management opportunities. In addition, Ore-Ida and Simplot companies had established community support funding for Magnus and employee opportunities to volunteer with the League in exchange for paid time off. Most of the large family farming operations in the County had children or grandchildren that participated in the Magnus programs, and they were happy to contribute funding, as well. With these additional financial resources, Bernie had been able to purchase much needed computer equipment and training for his staff as well as new sports

equipment for the kids. The Magnus Advisory Board was pleased with Bernie's progress. This was, of course, a relief to Bernie, but he was more gratified to see his staff coming together and the kids growing in their skills and in their confidence.

## One Year Later

"What a difference a year can make!" Bernie mused. He pulled his truck into the parking lot beside the newly constructed Magnus Youth League headquarters building and turned off his headlights. It was early, but this was registration day for fall football. Bernie wanted to be sure everything was ready to go - especially today because his board of directors would also be coming by to walk through the new facility.

Bernie unlocked the front door, disabled the security system, and strode through the front registration area to the offices toward the back of the building. This space was large, probably big enough to hold fifty or so people. There were four desks out here, each with its own computer, and Bernie's staff was now comfortable with all the systems he had put in place to organize the kids across all the different sports programs.

It had taken a little while, but Bernie was proud of the work he'd done to promote Magnus to the Malheur County community. With the state development grant he'd been able to secure and with contributions from the community, Bernie had been able to build this new Magnus Youth League facility right in the heart of the Ontario historical district. Already other businesses were popping up nearby, and the city was planning to build a park across the street with a skate park and basketball courts. It was amazing how the community was coming together. Bernie hoped his Board would be just as pleased as he was with the progress.

# SIESMILES BRAND WINE

## D.K. "Skip" Smith, Baze University
## Carlos Aimar, University of San Isidro-P.Marin Buenos Aires, Argentina
## Juan F. Ruedin, CEO, Altos de Tinogasta, Tinogasta, Argentina

### CASE DESCRIPTION

*This case offers students the opportunity to play the role of a consultant who has been charged by the CEO of a vineyard in Argentina to develop opportunities for achieving (within the next 12 months) revenues of US$1.5 million for a newly created brand of wine. The primary learning objective is for students to analyze the situation and then apply a systematic approach (one such process is described in detail in the instructors' note) to develop the recommendation that they (as a consultant) will make to the CEO. Assuming instructors decide to utilize the systematic process described in detail in the instructors' note, they will want (before assigning this case study) to present that "7-step process" to students. Having done that, assessment of student analyses and recommendations is easy; it will be based on how well each student has completed each step in that systematic process. The case is based on data collected by one of the authors in Argentina. The case is appropriate for senior-level undergraduates as well as students in MBA and Executive Development programs. It is designed to be taught in a one hour and a half class session, and is likely to require at least a couple hours of preparation by students.*

### CASE SYNOPSIS

*Mr. Juan F. Ruedin is CEO of Altos de Tinogasta-La Aguadita S.A., a farming/real estate company located on 3000 hectares in the town of Tinogasta, Province of Catamarca, in Argentina. The business model Altos de Tinogasta (hence, AT) is using, and the results the company has achieved so far, are as indicated below:*

1. *The 3000 hectares have been planted in two crops: olives and grapes. The first harvests were in 2013.*

2. *Of the 208 parcels planted in grapes, so far 142 (that is, 68%) have been sold. Of the 338 parcels planted in olives, so far 230 (that is, 68%) have been sold. The trend in sales has varied considerably: After a very strong performance in 2010 (a total of 93 parcels were sold that year), only 29 parcels were sold in 2011. Subsequently, however, sales of plots have varied considerably: in 2012, 2013, 2014 and 2015, sales of plots planted in grapes were 19, 18, 16 and 10 respectively; in 2012, 2013, 2014 and 2015, sales of plots planted in olives were 24, 69, 33, and 13 respectively. The bottom line is that over the last five years, total revenues generated from the sale of plots have (with the exception of revenues for 2016) been on a downward trend; the exact plot-related revenues over this period are as indicated below:*

> *2013:  $1,429,828*
> *2014:    $988,173*
> *2015:    $524,961*
> *2016:    $753,116*
> *2017:    $344,257*

3. *AT is very eager to increase its revenues.  In particular, the company is eager to increase the amount of revenue generated by sales of wine, from almost nothing in 2013 (the first year AT harvested grapes) to approximately US$1.5 million for the newly-introduced Seismiles brand in the next 12 months.  Achieving wine-related sales of USS1.5 million for the newly-introduced Seismiles brand in the next 12 months would be a very substantial increase in AT's wine-related revenues of approximately US$754,000 in 2017.*

4. *Mr. Ruedin has invited Professor Carlos Aimar to develop (within 30 days) a set of alternatives for achieving the above objective, that is, that over the next 12 months, AT's Seismiles brand should generate at least US$1.5 million of wine-related revenue.*

*Additional data and information in the case include:*
1.    *Regarding Argentina: Historical overview, a sample of recent demographic statistics from the World Bank, (and for benchmarking purposes, comparable statistics for the United States), plus information on the economy of Argentina.*
2.    *Regarding the industry:  A selection of facts and figures regarding both the global wine industry and the wine industry in Argentina.*
3.    *Regarding the company's wine-related activities: Business model, current marketing strategy, current performance, and numerous factors impacting that performance.*
4.    *Additional information:  Information on the purchase and consumption-related behaviors for wine and wine-related products and services for the market AT has targeted; also, information about AT's competitors.*

## INSTRUCTORS' NOTE

As indicated in the case, the situation faced by Prof. Carlos Aimar is that he has been invited by Juan Ruedin, CEO of Altos de Tinogasta (AT) to identify (within the next 30 days) a set of alternatives for achieving the objectives which the CEO of AT has set, that is, to generate sales of at least US$1.5 million within the next 12 months for the newly-introduced Seismiles brand of wine. As regards lessons and/or information which students should learn from this case, at least four points can be made:

1.    At the beginning of the case, students will need to consider the extent to which developed-world models and conceptual frameworks can be applied to challenges and opportunities in the developing world. By the end of the case discussion, they will have discovered that some conceptual frameworks (for example, building brand equity) can be useful guides to managerial action not only in the developed world but in the developing world as well.

2.      2 Students will be able to compare their alternatives to the ones developed by the hero of the case, that is, Prof. Carlos Aimar; also, they will also be able to see the feedback from the CEO of AT on alternatives suggested by Prof. Aimar.

3.      Students will discover that the conceptual framework of managers and/or consultants (in this case, a "building brand equity" model developed by Keller 2008) powerfully impacts the nature of the process and/or options used to address managerial challenges and/or opportunities. Specifically, a "building brand equity" approach to increasing revenues is likely to differ considerably from an approach to increasing revenues based on a different conceptual framework (for example, "turnaround strategies").

4.      As they work through the case, students are exposed not only to the challenge faced by Prof. Aimar but also to a bit of information on an important South American market (Argentina).

## DISCUSSION QUESTIONS

We often select one student to lead the discussion. Another approach would be to solicit input from various students at various stages of the analysis. Either way, our usual approach to this case is threefold:

1. Solicit from students the details of the case, including information about the macroeconomic environment at the time of the case; information on the company; information on the competitive environment; information on customers, information on strategies the company has used over the years, and information on how those strategies have been implemented. Usually, we write much of this information on the board, so that if questions on "facts of the case" arise, we will have much of that information in front of us.

2. Ask an individual student or the class as a whole to address a very specific series of questions. Those questions, and comments relating to three possible solutions to the case, are as listed below:

### 1) What is the main problem?

Students usually conclude that Prof. Aimar must identify (within the next 30 days) a set of alternatives for achieving the objectives set by the CEO of AT, that is, to generate sales of at least US$1.5 million within the next 12 months for the newly-introduced Seismiles brand of wine. We reinforce the idea that this is a reasonable statement of the challenge Prof. Aimar faces.

### 2) What kind of problem is this?

Instructors should not be surprised if there are as many answers to this question as there are students in the class. Clearly, there is no one "right" answer. However, three alternative approaches, each of which seems quite relevant to the situation, are as indicated below:
       a.   Marketing strategy
       b.   Turnaround strategy
       c.   Building Brand Equity

**3) For the kind of problem selected, what are the key variables and which expert says so?**

For students concluding that the main problem is "marketing strategy," Perreault and McCarthy (2009) suggest that the key marketing strategy variables are: 1) Target market; and 2) The marketing mix (that is, place, price, product, and promotion). For students concluding that the main problem is the need for a "turnaround strategy," Sheth (1985) suggests there are nine strategies which can be considered: 1) Entrenchment (that is, fight for a larger share of existing uses of products in existing markets); 2) Consider selling to intermediaries; 3) Mandatory consumption (that is, ask government to pass a law requiring the use of a product or service); 4) Go international; 5) Broaden product horizons (that is, don't sell just the computer; rather, sell the computer plus a full set of ancillary products and services); 6) In existing markets, identify new applications for products; 7) In existing markets, identify new usage situations; 8) Repositioning (that is, in new markets, identify new uses for products by changing the image of the product); and 9) Redefining markets (that is, in new markets, identify new uses for products by making functional changes in those products. For students concluding that the main problem is "Building Brand Equity," Keller (2008) suggests the following six "brand building blocks": 1) Salience; 2) Performance; 3) Imagery; 4) Judgements; 5) Feelings; and 6) Resonance.

**4) What data from the case relate to the key variables?**

As implied above (and this is one of the key learning points of the case), the data students present will depend on the main problem they identify. Students believing the main problem is "marketing strategy" will focus on the key variables identified earlier (i.e. target market, product, price, promotion, and place); Appendix 1 identifies data from the case which relate to each of those key variables. Students believing the main problem is the need for a turnaround strategy will focus on the nine alternative strategies identified by Sheth; Appendix 2 identifies data from the case which relate to each of those alternatives. Students believing the main problem is "building brand equity" will focus on the six "brand building blocks" identified by Keller; Appendix 3 identifies data from the case which relate to each of those key variables.

**5) What alternative solutions can be identified?**

Research suggests we make better decisions if we identify alternatives, assess the advantages and disadvantages of each of those alternatives, and then chose the preferred alternative. For this reason, we require students to identify at least two alternative solutions to the case. Of course, students having difficulties coming up with a second alternative can be reminded that one possible solution is to "do (or change) nothing."

**6) Which one alternative does the class/student recommend, and why?**

"Changing nothing" is unlikely to help Prof. Aimar achieve his objective of identifying a set of alternatives for achieving the objectives set by the CEO of AT, that is, to generate (in the next 12 months) sales of at least US$1.5 million for the newly-introduced Seismiles brand wine. Thus, students believing the main problem relates to marketing strategy will recommend an approach which focuses on those five variables. Students believing the main problem is the need for a "turnaround strategy" are likely to recommend consideration of one or more of the alternatives identified by Sheth. Students believing the main problem is "building brand equity" will recommend an approach focusing on Keller's six brand building blocks.

It turns out that the alternatives suggested to CEO Juan Ruedin by Prof. Aimar were based on the "building brand equity" conceptual framework developed by Keller (2008). For additional information on the alternatives suggested by Prof. Aimar, and the reactions of Mr. Juan Ruedin (CEO of AT) to those alternatives, please read on.

**7) What negatives are associated with the alternative selected by the class leader and/or other members of the class?**

Very few solutions are risk and/or problem-free. Negatives associated with the solution proposed by the class leader and/or other members of the class could include the following: The chosen alternative, if it requires AT to acquire specialized equipment and/or skills the organization doesn't currently possess, could be expensive both in terms of time and money. Also, because the case probably doesn't provide all the data a decision maker would need (in other words, it is likely that some important data is missing), it is possible that assumptions made by the class leader regarding the actual situation faced by AT are incorrect. If so, the proposed solution might be inappropriate.

The third and final step in discussing a case with students is to share with them what actually happened and to discuss with them the implications of that outcome. As indicated above, as he thought about identifying alternatives to generate (within the next 12 months) sales of $1.5million for the newly-introduced Seismiles brand wine, Prof. Aimar decided to focus on the "building brand equity" conceptual framework set forth by Keller (2008). Based on Keller's six brand equity building blocks, Prof. Aimar identified (and suggested to Juan Ruedin) the following alternatives for generating sales of US$1.5 million within the next 12 months for the newly-introduced Seismiles brand wine.

1) Alternatives for creating brand salience (that is, alternatives for creating deep and broad awareness for the newly-introduced Seismiles brand wine):
a. Starting in the local (i.e. Catamarca) area:

      i. Regarding the creation of deep awareness for Seismiles brand wine: Organize events for media representatives (papers, radio, television, social media, etc.) and individuals perceived by locals to be wine experts. Assuming the Seismiles brand is judged by experts to be high quality, make sure that the tastings feature blind taste tests against well-known, more expensive wines. If these events are filmed, videos can be created and then posted to YouTube and/or shown on television. Also, partner-up with local accounts (supermarkets, restaurants, social clubs, specialty shops, etc.) who do newsletters and/or web and/or social media; they will feature you in their materials. With restaurants and social clubs: Share with these organizations the fact that research in the U.S. indicates that when restaurants offer customers the opportunity to taste five wines, the total increase in sales for those five wines grew astonishing 47.3%; then make sure that one or two of the wines the restaurant offers customers for tasting is a Seismiles brand wine. If there are individuals at these local accounts who are perceived by consumers to be very knowledgeable about wine, get those individuals to provide testimonials

(either on video or on paper) for Seismiles brand wine; if video is used, post those videos to YouTube and/or Facebook.

ii. Regarding the creation of broad awareness for Seismiles brand wine:  If there are key selling dates (i.e. dates when local consumers are very likely to buy and consume wine), make sure to organize promotions (paper and/or on-line coupons, special offers and/or special pricing, etc.) for the dates leading up to those events.  Also, make sure (in promotional materials) that consumers are shown consuming Seismiles brand wine not only with meals, but in the widest possible variety of usage situations (including parties, get-togethers with friends, individuals relaxing with a glass of wine at the end of the day, etc.).  The broader the range of usage situations shown, the better.

b.   Assuming the initiatives set forth above are successful in creating deep and broad awareness of Seismiles brand wine in Catamarca, roll these initiatives out in other areas of Argentina.  Also, create a Facebook fan page, and create third-party endorsements on Facebook, Twitter, and YouTube.

c. Assuming the initiatives set forth above are successful in creating deep and broad awareness of Seismiles brand wine in Argentina, seek out a company (or companies) willing to promote the Seismiles brand in countries and markets outside of Argentina.  The reason for building brand equity in Argentina before attempting to develop overseas markets:  the case indicates that the export of unbranded wines from Argentina is a very low-margin business.

d. Final Thought:  The objective here is to create (as quickly as possible) deep and broad awareness of the Seismiles brand.  The suggestion is to begin this process in Catamarca (i.e. the home turf for Seismiles) and then work to disseminate that deep and broad awareness in Argentina and then overseas.

2)  Alternatives for creating brand performance: Keller (2008) indicates that the following five attributes and benefits often underly brand performance:  primary ingredients and supplementary features; product reliability, durability, and serviceability; service effectiveness, efficiency, and empathy; style and design; and price.  Elaborative comments include:

a.   Regarding primary ingredients and supplementary features:  Data collected by Prof. Aimar indicate that the subset of ABC1 consumers who perceive themselves to be "wine experts" include the observation that "the immense, colourful, breath-taking scenery of the Andes is captured (and then revealed) through the intense colour, the fresh aromas and the structure (of the wines)."  The implication is that grapes from the Catamarca area (also the Seismiles area) are perceived to be high-quality ingredients; this perception should be reinforced and promoted.

b. Product reliability, durability, and serviceability:  It seems unlikely that product durability and serviceability are relevant to a product in the wine category.  As for product reliability:  assuming the taste and texture of the various Seismiles brand wines do compare very favorably with better-known (and more expensive) wines; it might (using testimonials from influential wine experts) be worth communicating a "same great taste every time" message.

c.   Service effectiveness, efficiency, and empathy:  For products in the wine category, service dimensions like these may seem irrelevant.  If, however Seismiles is able to establish a channel of distribution so that institutional customers (restaurants, clubs, etc.)

calling before a certain time in the afternoon (say, 2pm) can be assured of receiving their Seismiles order before the end of the same business day, this might provide Seismiles a competitive advantage over the competition.   One of the authors is aware of an alcoholic beverages company elsewhere in the world which has used this approach with great success.

   d.  Style and design:  For a product like Seismiles (i.e. a product in the wine category), it seems likely that advantages relating to "style and design" might relate less to the wine itself and more to packaging-related alternatives.

   e.  Price:     The case indicates that at a price of less than $10.00 per bottle, Seismiles makes no profit at all.  For this reason, it seems likely that the price of each Seismiles wine needs to be somewhere between $10.00 per bottle and the price of better-known (and more expensive) wines against which Seismiles wines are being tasted and against which Seismiles wines are being compared.  The exact prices for each Seismiles wine should be established using a market-oriented approach to pricing (i.e. selecting prices where the price/quality relationship for each Seismiles wine offers better value for money than the value for money offered by competitors).  Of course, it is possible that Seismiles could use introductory pricing in the beginning; however, one would want to be very careful not to create a situation where consumers end up perceiving that the introductory price will be available ongoingly.

   f.  Final thought:  The objective here is to move customers from simple awareness of the Seismiles brand to a sense that every aspect of the Seismiles brand (ingredients, processes, service, packaging, and pricing) offers high- performance and high value for money.

3)   Alternatives for creating brand imagery: Keller (2008) indicates that the following four intangible dimensions of a product underly brand imagery: User profiles; purchase and usage situations; personality and values; and history, heritage, and experiences.  Keller also indicates that the resulting brand imagery needs to be (in this order) strong, positive, and unique.  Regarding these intangible dimensions:

   a. User profiles:  The case indicates that the demographic and psychographic characteristic of the target market include ABC1 socio-economic class and that fact that status, prestige, and socialization are important to people in this group perceiving themselves to be wine experts. Data collected by Prof. Aimar also indicate that members of the subset of the above socio-economic groups who perceive themselves to be "wine experts" fear that new brands and products might not meet their pleasure, prestige, and/or other "well-being" related needs.   One implication consistent with this information would be to identify influential individuals and/or organizations (social clubs, etc.) perceived to be recognized wine experts and have these individuals/organizations do testimonials (either video or on paper) on behalf of Seismiles wines.

   b.  Purchase and usage situations:  As suggested earlier, the broader the range of usage situations suggested by Seismiles, the better.  Data from the case suggest that 47% of wine consumed in Argentina is drunk with additives of one sort or another (ice, soda, carbonation, juice, or energizer); one implication is that quite a bit of wine is consumed at times other than mealtime.

   c.  Personality and values:     Data collected by Prof. Aimar indicate that members of the ABC1 socio-economic categories who perceive themselves to be "wine experts" have

made (in their comments) the observation that "the immense, colourful breath-taking scenery of the Andes is captured (and then revealed) through the intense colour, the fresh aromas and the structure (of the wines)." Given this data, it seems that naming the new wine brand "Seismiles" (a reference to the section of National Route 60 that begins in Tinogasta and ends in the Paso de San Francisco, crossing an Andean region of great height with several peaks that exceed six kilometers above sea level) could create the kind of strong, positive, and unique brand imagery which will resonate with consumers.

d. History, heritage, and experiences: While Seismiles is a new brand (i.e. it does not yet have much history or heritage), the parent company (Altos de Tinogasta) does have a history and heritage. Data collected by Prof. Aimar indicate that for many members of the ABC1 socio-economic categories who perceive themselves to be wine experts, seeing (in person, on their first visit) real vineyards and real equipment (in other words, not just pieces of advertising or promotion) was a very positive and memorable experience. One implication is that organizing (and filming, for use on YouTube and/or television) tours of the Seismiles operation could help create a strong, positive and unique image for the brand.

e. Final thought: The objective here is to move consumers from a sense that every aspect of the Seismiles brand embodies high performance and high value for money to a situation where targeted consumers have (through their demographics, psychographics, purchase and usage experiences, and brand personality and values) a strong, unique, and positive brand image for Seismiles.

4) Alternatives for communicating brand judgements: Keller (2008) indicates that the four dimensions of customer opinions and/or evaluations of the brand include: Brand quality; brand credibility; brand consideration; and brand superiority. Elaborative comments include:

a. Regarding brand quality: Keller (2008) indicates that "customers can hold a host of attitudes toward a brand, but the most important relate to its perceived quality and to customer value and satisfaction." As suggested earlier, one approach to increasing target market customers' perceptions regarding brand quality could be to identify influential wine experts and then solicit testimonials (again, either on paper or on video) for Seismiles brand wines from those experts. Assuming experts agree that Seismiles wines are very good, another approach to increasing target market customers' perceptions regarding brand quality could be to arrange (and film, for YouTube and/or television adverts) events where Seismiles wines are tasted against well-known and/or higher-priced wines.

b. Regarding brand credibility: Keller (2008) indicates that this variable relates to customer perceptions of the company sponsoring the brand, as regards three issues: brand expertise, brand trustworthiness, and brand likeability. Regarding brand expertise, the case indicates that Seismiles has hired a well-known and well-regarded individual (Santiago Palero from Mendoza) to fill the role of Seismiles' enologist; assuming he is indeed well-known and well-regarded, featuring him in Seismiles promotions and events should have a positive impact on consumers' perceptions regarding brand expertise. Regarding brand trustworthiness, this point reinforces the possible usefulness of the "same great taste every time" sort of message mentioned earlier. As for brand likeability, data collected by Prof. Aimar state that the subset of people in the ABC1 socio-economic group who perceive themselves to be wine experts indicate that the Altos de Tinogasta business model (that is, opportunities to purchase plots of grapes and then enjoy the products produced from those

plots) offers small investors and consumers(like themselves) the chance to enjoy having their own branded wine, in the beautiful (and relaxed) scenery of the Andean mountains.

c. Regarding brand consideration: Keller (ibid) indicates that brand consideration (i.e. whether customers actually consider purchasing the brand) "depends in large part on the extent to which strong and favourable brand associations can be created as part of the brand image." As noted earlier, data collected by Prof. Aimar state that the subset of ABC1 consumers who perceive they are "wine experts" indicate that status, prestige, and socialization are important and that members of this subset fear that new brands and products might not meet their pleasure, prestige, and/or other "well-being" related needs. One implication consistent with this information and with earlier recommendations as well would be to identify influential individuals and/or organizations (social clubs, etc.) perceived to be recognized wine experts and have these individuals/organizations do testimonials (either video or on paper) on behalf of Seismiles wines.

d. Brand superiority: Keller (ibid) indicates that "superiority measures the extent to which customers view the brand as unique and better than other brands." One already-mentioned way for Seismiles to measure this (and take advantage of whatever superiority the brand possesses) would be to stage (and film, for YouTube and/or television adverts) blind taste tests against more expensive and/or better-known wines; another approach already mentioned could be to solicit testimonials (either video or on paper) from well-recognized wine experts and then promote Seismiles using those testimonials.

e. Final thought: The objective here is to ensure that every dimension of customer opinions and evaluations (brand quality, brand credibility, brand consideration, and brand superiority) brings targeted consumers closer to a very strong, unique, and positive image for Seismiles.

5) Alternatives for communicating brand feelings: Keller (ibid) indicates that "brand feelings are customers' emotional responses and reactions to the brand" and that there are the following six types of brand-building feelings: Warmth, fun, excitement, security, social approval, and self-respect. Of these six, data collected by Prof. Aimar suggest that social approval and self-respect are quite important to the subset of ABC1 customers who perceive themselves to be wine experts; the comments around this point include: "They do not like to experiment with new brands or to relax the ritual around wine, i.e. they do not want to reduce the time spent drinking their wine. In this segment grows the penetration of economic wines in bottle, as well as high-end wines. It is probable that they reserve the first ones for a home consumption and the second ones are taken to meetings or to entertain visitors. Therefore, one would think that the conservative expert has a ritual posture and structured in front of others, but 'relaxes' inside." As mentioned earlier, it seems likely that setting up (and filming, for use on YouTube and/or television) blind taste tests against more expensive and/or better-known wines and/or soliciting testimonials for Seismiles (either video or on paper) from well-recognized wine experts and then promoting Seismiles using those testimonials could be ways to address the security, social approval, and self-respect-related concerns of the subset of ABC1 customers who perceive themselves to be wine experts. As for the warmth and fun-related dimensions: Perhaps creating (and then filming, for use on YouTube and/or television) situations showing families and/or friends enjoying themselves over glasses of Seismiles wine would work. Finally, for the excitement-related dimension: perhaps creating (and

filming, for use on YouTube and/or television) a situation which shows recognized wine experts sampling (for the first time) a Seismiles wine and becoming excited by their first experience of this new brand.  One final thought:  The objective here is to stimulate and take advantage of as many dimensions as possible of the feelings (warmth, fun excitement, security, social approval, and self-respect) customers have for the Seismiles brand.

6) Alternatives for creating brand resonance:  Keller (ibid) classifies the two dimensions of brand resonance (intensity, and the level of activity generated by that intensity) into the following four categories:  behavioral loyalty, adjustment, sense of community, and active engagement.  Regarding behavioral loyalty (that is, repeat purchases of a product):  While it is clear that Seismiles should do its best to stimulate repeat purchases, because Seismiles is a new brand, there isn't yet any data on patterns of repeat purchases by consumers.  Similarly, while promotions for Seismiles could show customers saying that they love the product, because Seismiles is a new brand, there isn't yet any data on the extent to which customers do have those sorts of feelings for the brand.  As for the idea of building up a community of customers who purchase and drink Seismiles brand wines:  While this hasn't happened yet, data collected by Prof. Aimar indicates the individuals in the subset of ABC1 customers who perceive themselves to be "wine experts" "desire to maximize pleasure, prestige, and other factors associated with their well-being.  A critical issue for ABC1 consumers in this subset is information. These types of shoppers are also very sociable and they like to share what they know about their most valued brands. Social media can help them fulfil their objectives, because they not only allow these individuals to find information they require but also allow them to share that information with their circle of contacts." The implication is that while there is not yet (because the Seismiles brand is very new) a community of users, it might (over time) not only be possible but also very useful to create one. One final thought:  The objective here is to stimulate intense feelings for the brand and to stimulate also an interest on the part of consumers in becoming actively involved with the brand.

## CONCLUDING COMMENTS

The above comments describe the alternatives identified  by  (and  recommended)  Prof. Aimar to achieve the objectives set by the CEO of AT.  Readers may be interested in the answers to the following questions:

1: Of the suggestions made by Prof. Aimar, which ones did CEO Juan Ruedin find especially useful?  Mr. Ruedin indicates that the suggestions he found especially useful included:

A.  Market-related:  While AT has identified the target market as consumers in the ABC1 socio-economic class, research conducted by Prof. Aimar suggests that consumers in the "wine expert" subset of the ABC1 socio-economic class are the consumers who are "not sensitive to price."  Selling new Seismiles wines and brands to this "expert" subset is likely to be challenging (their social and/or prestige-related anxieties and uncertainties must be overcome); however, if it can (by building brand equity using suggestions made by Prof. Aimar) win their patronage, AT should be able to create and grow a very successful wine business.

B.  Product-related:  Given that AT will focus its efforts on the less-price sensitive "wine

expert" subset of the target market, products produced by the SEISMILES brand will be designer wines created by Palero and positioned in the "Vino Premium" category. The product mix will include four red wines (Malbec, Cabernet Sauvignon, Syrah, and Tempranillo) and two white wines (Chardonnay and Torrontes).

C.  Pricing-related: Prof. Aimar suggested that the Seismiles brand should use a market-oriented approach to pricing (rather than a cost-oriented approach to pricing); in addition, he suggested that (in an effort to jump start sales of the brand) the initial selling price (for ultimate/individual customers) of the Seismiles wines designed by Palero could be reduced. Consistent with that suggestion, CEO Ruedin indicates that the initial selling price will be $50 per bottle; he believes that at this price his wines will offer better value for money than the higher-priced and/or better-known brands to which Seismiles wines will always (on social media and/or in adverts and/or in personal selling presentations) be compared.

D.  Promotion-related: Seismiles has launched a number of initiatives which are very consistent with suggestions made by Prof. Aimar, including:

i.The market release for the Seismiles brand began in Catamarca (the home turf for Seismiles) and was then extended to Buenos Aires (the main market) in order to begin building brand equity in Buenos Aires and other major urban centers in Argentina (Cordoba, Rosario, Santa Fe, Mar del Plata, etc.). Ultimately, Seismiles is eager to begin building brand equity not only in Argentina but also overseas (Uruguay, Paraguay, Brazil, etc.) as well.

ii.Santiago Palero (a well-known and highly-regarded winemaker) has become very active and involved in promoting the Seismiles brand at different events organized in key marketplaces. CEO Juan Ruedin has also become a key member of the promotional team; his role includes promoting the AT model offering small investors and ABC1 consumers the opportunity to enjoy having their own branded wine, in the beautiful and relaxed scenery of the Andean mountains.

iii.AT has identified a number of key selling dates (these include Fathers' Day, Mothers' Day, Malbec Day, Christmas & New Year's Eve, Easter, and a number of National Holidays) and is organizing Seismiles promotions for each of those events. In addition, AT has identified a number of wine-oriented fairs and/or conventions (Caminos y Sabores, Expo Wines, Expo Delicatessen & Vinos, and Vinos & Bodegas 2018) and is developing promotional materials and presentations for each of these events.

iv.The Seismiles market release is shown weekly on a specialized TV show called Planeta Vinos. This show concerns wines and the wine market; it is hosted by Key Opinion Leaders (KOLs) who are perceived (due to their knowledge on wine) as reliable authorities.

v.Guided tours to the Seismiles vineyard were filmed and are currently on rotation through YouTube and TV, in order to show not only the customers but also to wine experts the assets that the company holds, their hi-tech equipment, and an overview of their production process. This creates for Seismiles a positive image in the eyes of experts, and reinforces the idea that Seismiles brand wines offer both high- performance and high value for money.

vi.Advertising themes (for example, "Wines with Spirit" and "New Frontiers-New Terroir- New Wines) have been developed to assist in creating a strong, unique, and positive image for Seismiles; these themes are used in articles, reviews, and advertisements which AT has placed in specialized graphic media.

2: Have any of the alternatives suggested by Prof. Aimar been implemented yet? If so, which alternatives have been implemented and what results have been achieved so far?

The answer is "Yes." As indicated earlier, the first variable in Keller's brand equity model is salience.  Regarding salience (i.e. the creation of deep and broad awareness for the brand) for various direct (i.e. reseller and institutional) customers: CEO Ruedin indicates that in August 2018 a market release event was held for media representatives and Key Opinion Leaders. The meeting took place in downtown Buenos Aires and was filmed for so it could be used later for promotional purposes on YouTube and T.V. In addition, investors of AT as well as Main Distributors and the members of the Seismiles Sales Force have all been briefed regarding the specifications of Seismiles wines and their positioning in the market. Finally, and under the leadership of our winemaker Santiago Palero, presentations on Seismiles were made in several large cities.  At these presentations, Juan Ruedin (CEO), Santiago Palero (winemaker) and Gustavo Urbani (Sales & Marketing Manager) spoke to the audience about the Line of Products, the Strategic Objectives for the brand, and the concept (for Seismiles) of a powerful, colorful, aromatic, fresh and very equilibrated (in mouth) line of wines.   Regarding salience for ultimate (that is, individual customers):   CEO Ruedin indicates that a Point of Purchase (POP) strategy was implemented in various wineries which agreed to allow individual customers to discover and taste Seismiles wines under the coaching of various sommeliers.

Regarding "brand performance" (that is, the second variable in Keller's brand equity model):  As indicated earlier, CEO Ruedin indicates that Seismiles is using a market-oriented approach to pricing, and that introductory pricing will be used to jump-start Seismiles sales.

Regarding "brand imagery" (that is, the third variable in Keller's brand equity model), CEO Ruedin indicates that within the traditional wine industry in Argentina, Catamarca and particularly Tinogasta is new territory, and represents a new frontier with new wines and a new taste quite different from Mendoza and other more established wine provinces.  In short, AT has begun work on developing a strong, unique, and positive brand image for Seismiles.  CEO Ruedin believes this differentiation offers AT and the Seismiles brand a lot of opportunities to organize presentation/wine tasting events in various institutions interested in partnering up, and provides AT staff opportunities to promote the Seismiles brand and products.

Regarding "brand judgements" (that is, the fourth variable in Keller's brand equity model):
CEO Ruedin indicates that the agenda for Seismiles includes partnering up with distributors in all major markets in Argentina (including Mar del Plata, Cnel Suarez, Mendoza, Cordoba, Santa Fe, La Plata, Neuquen, Rio Negro, and Entre Rios), so as to maximize the probability that members of the ABC1 subset who perceive themselves to be wine experts will not only become aware of  the Seismiles brand and its image but will also include it (when making a wine purchase) in their consideration set.  In addition, AT recently made an alliance with Gustavo Urbani, Marketing and Sales Manager for ATILIO AVENA, a well-known winery of Mendoza. This was possible due to the shutdown of Atilio Avena production activities as a result of the macroeconomic crisis. In the first two months, sales for the Seismiles brand overshot the sales forecast by 66%.

Regarding "brand feelings" (that is, the fifth variable in Keller's brand equity model):
As mentioned earlier, CEO Ruedin indicates that a market release event was held for media representatives and Key Opinion Leaders; that investors of AT as well as Main Distributors and

the members of the Seismiles Sales Force have all been briefed regarding the specifications of Seismiles wines and their positioning in the market; and that (under the leadership of our winemaker Santiago Palero) presentations on Seismiles were made in several large cities.  It seems likely that these initiatives have at least begun to address (for ultimate consumers) the security, social approval, and self-respect dimensions of brand feelings.

Regarding "brand resonance" (that is, the sixth and final variable in Keller's brand equity model):  As mentioned earlier, CEO Ruedin indicates that some wineries have offered individual consumers (that is, ultimate consumers) the opportunity to discover and taste Seismiles wines under the coaching of various sommeliers.

3: Are there other alternatives (that is, alternatives other than those suggested by Prof. Aimar) which have been put into play? If so, what are these additional alternatives and what results have been achieved so far?

CEO Ruedin indicates that the export business has become very attractive and profitable, as a result of high exchange rate, and latest macroeconomic rules. Recently AT reached an agreement with a British Corporation, to export the first container of Seismiles Wines to the UK.

Negotiations for other export destinations including Brazil, Mexico, China and the USA are already in process.  CEO Ruedin also indicates that AT is eager to enter many prestigious domestic and international wine competitions in 2019 with the Seismiles Brand, with high expectations of achieving awards.  Finally, CEO Ruedin indicates that AT will (over the next couple of years) be working intensively on product-related issues including:

b. Through an alliance with the University of Cuyo in Mendoza, AT's winemaker (Santiago Palero) will conduct a research program focused on developing other wine strains for the international market.
c. Increasing the production of Malbec.
d. Decreasing the sales of semi-finished product.
e. Increasing the production and sales of finished product, taking advantage of Seismiles market penetration.
f. Releasing a "Red Blend" line, that is, a mix between Syrah and Tempranillo grapes.

4: Overall, does it appear that AT is likely to achieve its objective, that is, to generate Seismiles wine brand-related revenues of US$1.5 million within the next 12 months?

Supported by the quality of Seismiles brand and a well-defined marketing strategy, CEO Ruedin is positive he will achieve that objective within the next 12 months.  He indicates that aggressive domestic market penetration will allow AT to achieve the target; over and above that, he believes the export business will deliver incremental opportunities and sales.

5:  At this time, regarding either the current situation and/or prospects for the future: Are there any other comments and/or observations which CEO Ruedin would like to make?

CEO Ruedin believes that the wine industry is most likely the first regional economy to progress, as soon as the country finds its order. To take advantage of that fact, CEO Ruedin indicates that his strategic plan designed will focus on the following transformations:

-From Production-Driven company to Marketing-Driven corporation.
-From Operational Organization to Competitive Company.
-From Domestic Market Orientation to International Business Corporation.
-From Small Independent Company to a company with multiple strategic alliances.
-From a focus on tangible to a focus on intangible marketing-related assets
-From Break Event to a Profitable Business.
-From a Production Orientation to a Creation of Value Orientation.

## OUR JOB……..
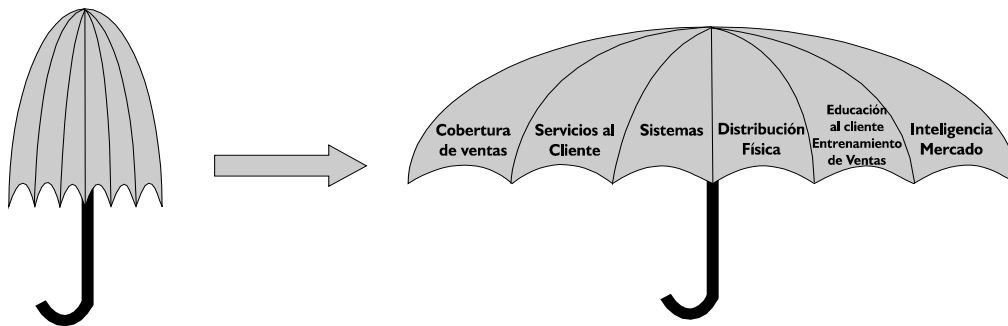


**MAKE THINGS HAPPEN**

## APPENDIX 1

## CASE DATA RELATING TO THE MARKETING STRATEGY MODEL

Target Market:  The case indicates that AT has identified the target market as consumers in the ABC1 socio-economic class.  However, the case also indicates that AT makes no profit at all on bottles of wine sold at $10 per bottle.  Because the case also indicates that consumers in the "wine expert" subset of the ABC1 socio-economic class "are not particularly sensitive to price" and in fact are "willing to pay expensive prices for wine," it seems likely that consumers in the "expert" subset of the ABC1 socio-economic class might be a more appropriate market to target.  Selling new wines and brands to this "expert" subset is likely to be challenging (the case indicates that "they do not like to experiment with new brands"); however, if it can win their patronage, AT should be able to create and grow a very successful wine business.

Product:   The case indicates that the 15% of the wine AT produced and sold in 2017 was sold at an average price of $5.30 per liter.  In other words, it was sold as a wine in the "basic wines" category, and every bottle was sold at a loss.  The case also indicates, however, that AT has retained (as its enologist) the services of Santiago Palero, a noted winemaker.   Given the target market identified above (that is, the "expert" subset of ABC1 socio-economic classes), it seems clear that AT should begin producing and selling designer wines created by Palero and marketed in the "Vino Premium" or "Vino Super Premium" or even the "Vino Ultra-Premium" categories.  Because wines AT sold in 2017 are associated with the "basic wines" category, it seems likely that AT will need to market its designer wines under a different brand name; as indicated earlier, the brand name "Seismiles" seems to be an appropriate choice.

Price:  The case indicates that wines in the three categories listed above (that is, premium, super premium, and ultra-premium) sell for between $50-$160 dollars per bottle.  Assuming the initial wines designed by Palero are intended to be positioned in the "super premium" category (i.e. a price of up to $90 per liter, AT could consider setting an introductory price in the "premium" category (i.e. $50 per liter), in an effort to jump start sales of their new brand.

Promotion:  The case indicates that "to date, AT has done very little promotion of its brand;" the case also indicates that "AT's financial fundamentals are limited."  Given AT's limited financial capabilities, it seems unlikely that AT would be capable of launching a massive nationwide advertising campaign.  Given the target market (the "expert" subset of the ABC1 socio-economic class), however, even if AT were financially capable of launching a nationwide advertising campaign, this might not be a good use of scarce resources.  A more sensible strategy might be to find a way to identify and contact members of the "expert" subset; one reasonable-sounding approach might be to identify a variety of institutions in Argentina (for example, upmarket restaurants, country clubs, social clubs, wine clubs, work groups and/or university faculty groups, etc.) and then contact these groups to see if they would be interested in partnering up with AT to stage combination presentation/wine tasting events.  Assuming various institutions are interested in partnering up to do presentation/wine tasting events, AT could come to the presentations not only with its designer wines but also with some staff (including Palero, if possible) and/or videos featuring its staff and its operations.

Distribution:  The case indicates that in Argentina, "there are two primary channels of distribution for wine:  1) Supermarkets, and 2) Self-service shops.  70% of the wines sold through supermarkets are priced between $8 and $20 per bottle; two-thirds of the remaining 30% are sold at less than US$8 per bottle.  As for wine sales through self-service shops:  a bit more than 70% are priced at less than US$8 per bottle with two-thirds of the remaining 30% priced between $8 and $10 per bottle.  As for business outside of Argentina (i.e. wine exported to other countries), AT indicates that exporting unbranded/unknown wines is a very low margin business."  What is not clear is whether each winery delivers its own wines to supermarkets and/or shops, or whether the wineries hire logistics companies to pick the wine up from the wineries and then these logistics companies deliver the wines to the supermarkets and shops.  While it certainly would be beneficial to AT to have supermarkets and shops carry its designer wines, it seems unlikely that supermarkets and shops would account for a large volume of wines priced in the "Premium and above" categories.  It seems more likely that using logistics companies to transport its wines to the institutions identified above (that is, upmarket restaurants, country clubs, social clubs, wine clubs, work groups and/or university faculty groups, etc.) would be an efficient way to supply AT designer wines to members of the "expert" subset of ABC1 socio-economic classes.

## APPENDIX 2

## CASE DATA RELATING TO THE "TURNAROUND STRATEGIES" MODEL

1. ENTRENCHMENT. According to Sheth (1985), this approach involves taking market share away from competitors. He suggests four alternatives which firms may be able to use; those alternatives and data from the case relating to those alternatives include:
a. Segment the market (and introduce different products, flavors, or brand names
for each segment):  The case indicates that 47% of the wine drunk in Argentina is consumed with additives (ice, soda, carbonation, juice, or energizer); it is possible that there could be an opportunity to go after the non-meal market.
b. Identify specialty markets: Members of wine clubs could be an opportunity for Seismiles.
c. Go after heavy users of the product: The case does not contain information about heavy users of wine in Argentina; however, and as mentioned above, members of wine clubs might constitute a heavy user market.
d. Seek multiple channels of distribution: Given that it sells through both specialty shops and supermarkets, it seems AT is already using multiple channels of distribution.

2. SWITCH TO INTERMEDIARIES. If getting the product into the hands of ultimate consumers is difficult, Sheth suggests that marketers may be able to succeed by selling to intermediaries (retailers, social and/or private clubs, wholesalers, etc.) instead.  The case does not indicate whether AT is selling through intermediaries.

3. MANDATORY CONSUMPTION. Sheth indicates that sometimes it is possible to revive
a business by getting government (state, local, or federal) to pass a law making in mandatory for consumers to purchase certain categories of products. While the case does

not address the issue of mandatory consumption, it seems unlikely that the government of Argentina will pass a law requiring members of the ABC1 socio-economic class in Argentina to purchase any wine including Seismiles.

4. GO INTERNATIONAL. Sheth indicates that sometimes it is possible to revive a business by beginning to sell the product in markets outside the home market. The case indicates that AT has discovered that exporting unbranded/unknown wine is a very low margin business.  One implication is that AT might want to begin by building the brand equity of Seismiles in their home market (i.e. Argentina) and then (after establishing a presence for Seismiles in Argentina) attempt to begin exporting.

5. BROADEN THE PRODUCT HORIZON. Sheth indicates that this approach often involves focusing on the function that a product performs and then thinking of the product as a component in a system.   Data collected by Prof. Aimar suggests that the subset of ABC1 consumers who perceive themselves as "wine experts" already regards wine from AT as part of a system while includes land, the growing of the grapes, and the processing of the grapes. Working to strengthen these connections could be useful.

6. NEW APPLICATIONS. According to Sheth, new applications usually involve some sort of functional change in the product. He indicates that a good way to search for new applications is to ask consumers how they actually use the product. The case indicates that 53% of wine consumed in Argentina is consumed "straight (i.e. without additives, not mixed, not iced, etc.).  There is no indication in the case whether AT has considered introducing products targeting the 47% of wine which is not consumed "straight;" it is possible that the production and sale of "non-straight" wines could represent an opportunity.

7. NEW SITUATIONS. Sheth indicates that this strategy requires marketers to seek out different times, places, and/or positioning for products.  The case indicates that in Argentina, wine tends to be consumer at mealtimes; it is possible that non-mealtime consumption of wine could be an opportunity for AT.

8. REPOSITIONING. According to Sheth, this strategy involves redefining a product's image into new usage situations within the same general application context.  It appears that in Argentina, beer has become the beverage of choice for non-mealtime occasions; perhaps there is an opportunity here for AT to pursue the non-mealtime alcoholic beverage market.

9. REDEFINE MARKETS. Sheth identifies four alternative approaches to using this strategy. Those four approaches, and data from the case relating to them, are as indicated below:
a. Generic to specialty products: Wines offered by AT are not a generic product; this option does not seem relevant to this situation.
b. Primary to secondary products: While wine has been a secondary product in the past (plots of land being the primary products), it seems clear that the CEO is eager to promote wine as AT's primary product.

c. Industrial to consumer products: Venerable wine is already a consumer product; this option does not seem relevant to this situation.

d. Consumer to industrial products: The semi-finished wine AT sells to other producers is already an industrial product.  Because it appears that this product is sold at a very low price, his option does appear to be a very attractive option.

## APPENDIX 3

## CASE DATA RELATING TO THE "BUILDING BRAND EQUITY" MODEL

1)Salience:  Keller (2008) indicates that brand salience deals with alternatives for creating deep and broad awareness for a product.  The case does not provide any information on steps AT has taken (or will take) regarding creating deep and broad awareness for Seismiles wines.  The case does indicate that "to date, AT has done very little promotion of its newly-introduced Seismiles brand."  The case also indicates that "because AT is a relatively new company. . . financial resources available for brand building and brand promotion are limited."

2) Performance: Keller (ibid) indicates that the following five attributes and benefits often underly brand performance:  primary ingredients and supplementary features; product reliability, durability, and serviceability; service effectiveness, efficiency, and empathy; style and design; and price.  Because the brand is so new, the case does not provide any information on the above dimensions, for Seismiles.  The case does however mention that data collected by Professor Aimar from the subset of ABC1 consumers who perceive themselves to be wine experts indicate that "the immense, colourful breath-taking scenery of the Andes is captured (and then revealed) through the intense colour, the fresh aromas and the structure (of the wines)."  The case also indicates that AT makes little or no profit when it sells wine at $10 per bottle or less.  Additional price-related information from the case relating to wine sales through supermarkets and specialty shops (the two primary channels of distribution for wine in Argentina) includes:
a.  70% of the wines sold through supermarkets are priced between $8 and $20 per bottle;
 two-thirds of the remaining 30% are sold at less than US$8 per bottle.
b.  As for wine sales through self-service shops:  a bit more than 70% are priced at less
 than US$8 per bottle with two-thirds of the remaining 30% priced between $8 and $10 per
 bottle.

3) Imagery:  Keller (ibid) indicates that the following four intangible dimensions of a product underly brand imagery: user profiles; purchase and usage situations; personality and values; and history, heritage, and experiences.  Because the brand is so new, the case does not provide any information about Seismiles on the above dimensions.  The case does however mention that data collected by Professor Aimar on the subset of ABC1 consumers who perceive themselves to be wine experts indicate that for these individuals, important issues include "image-related value (status, prestige, socialization) and symbolic value (seduction, innovation).  Individuals in this category care about the brand, are not particularly sensitive to price, and are inclined to patronize the brand with dominant social representation.  They are wine connoisseurs and are on the lookout for wine-related news and are willing to pay expensive prices for wine."  The case also mentions that "in Argentina, 53% of wine is consumed "straight," 29% is consumed with ice, 21% is consumed with soda, 12% is consumed with carbonation, 4% is consumed with juice, and 1% with an energizer.  Another purchase-related fact from the case is that "in Argentina,

beer consumption has been increasing dramatically (10 liters of beer per capita in 1990, 43 liters of beer per capita in 2010) while wine consumption has fallen equally dramatically (60 liters of wine per capita in 1990, 28 liters of wine per capita in 2010)." A related mentioned in the case is that data collected by Professor Aimar from the subset of ABC1 individuals who perceive themselves to be wine experts indicate that "while the occasions for consumption of beer are quite varied, wine seems to be relegated to the table (with food) and special occasions. What has been lost today in the hands of beer are mostly 'occasions'." Finally, data collected by Professor Aimar indicate that for this same subset of ABC1 individuals, "new brands and products might not meet their pleasure, prestige, and/or other 'well-being' related needs."

4) Judgements: Keller (ibid) indicates that the four dimensions of customer opinions and/or evaluations of the brand include: brand quality; brand credibility; brand consideration; and brand superiority. Because the brand is very new, the case provides no evaluative information about Seismiles on the above dimensions. The case does indicate, however, that AT has hired "a well-known and well-regarded individual (Santiago Palero from Mendoza) . . . to fill the role of Seismiles' enologist (that is, the individual who, for wines, manages the fermentation and aging process)."

5) Feelings: Keller (ibid) indicates that "brand feelings are customers' emotional responses and reactions to the brand" and that there are the following six types of brand-building feelings: warmth, fun, excitement, security, social approval, and self-respect. Because the brand is so new, there is no information in the case about Seismiles, on any of the above six categories. As indicated earlier, however, the case does mention that data collected by Professor Aimar on the subset of ABC1 consumers who perceive themselves to be wine experts indicate that for these individuals, important issues include "image-related value (status, prestige, socialization) and symbolic value (seduction, innovation). Individuals in this category care about the brand, are not particularly sensitive to price, and are inclined to patronize the brand with dominant social representation. They are wine connoisseurs and are on the lookout for wine-related news and are willing to pay expensive prices for wine." As indicated earlier, the case also indicates that for this same subset of ABC1 individuals, "new brands and products might not meet their pleasure, prestige, and/or other 'well-being' related needs."

6) Resonance: Keller (ibid) indicates that the two dimensions of brand resonance (intensity, and the level of activity generated by that intensity) into the following four categories: behavioral loyalty, adjustment, sense of community, and active engagement. Because the brand is so new, there is no information about Seismiles on any of the four above categories. The case does mention, however, that data collected by Professor Aimar on the subset of ABC1 consumers who perceive themselves to be wine experts indicate that these individuals "are inclined to limit their expertise to a set of wineries and brands" and that "new brands and products might not meet their pleasure, prestige, and/or other 'well-being' related needs."

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# COMMERCIAL LEASE TENANT CASH OUTFLOW FORECASTING USING MULTIPLE METHODOLOGIES

## Dennis Zocco, University of San Diego

### CASE DESCRIPTION

*The primary subject matter of this case is cash flow forecasting in the context of commercial real estate finance decision-making. Secondary issues examined include the financial analysis necessary when deciding on the appropriate lease type among Gross, Modified Gross, and Net commercial lease choices, the use of consumer and producer price indexes in generating tenant lease-based cash outflow forecasts, forecasting using the linear regression, historical mean, and Monte Carlo simulation methodologies, and the role of risk aversion in decision-making under uncertainty. The case has a difficulty level of four, appropriate for senior level courses, and five, appropriate for first year graduate students. The case is designed to be taught in either an entrepreneurial finance course, a real estate finance or commercial property management course, or an introductory forecasting course. The case can be taught in one class hour with two hours of outside preparation using an exclusively class discussion approach with forecasting results provided to the student or three class hours with five hours of outside preparation with students collecting data and forecasting tenant lease cash outflows. In addition to instructor notes, two versions of a financial model are available to instructors on request of the case author as case supplements: a Master version, which provides completed forecast setups, recent data, and forecast results, and a Data-Entry version which is the Master version without the data and forecast results.*

### CASE SYNOPSIS

*A young, recently-graduated financial analyst receives her first assignment from her startup company's CFO: develop a recommendation, with justification, on the appropriate lease type—Gross Lease, Modified Gross Lease, or Net Lease—that the company should accept in signing a new five-year lease for office space. The space location and size have already been decided. The only decision left is which lease type to accept. The analyst takes a tenant cash outflow forecasting approach to her assignment and uses three methodologies—linear regression, historical mean, and Monte Carlo simulation—to forecast the projected future cash outflows associated with each lease type. The analyst's plan is to use the appropriate ex-ante lease-related expense data to develop forecasts of the cash outflow for each lease type under each forecasting methodology, analyze her company's forecasted cash outflows in both current and present value dollars, and then make her lease type recommendation based upon her analysis.*

### INSTRUCTORS' NOTES

### CLASS LOGISTICS/TIME MANAGEMENT

This case can be assigned individually or in an active learning group setting. As a supplement to the case, two versions (Master and Data Entry) of an Excel-based forecasting model

is available to instructors upon request of the case author. The Master version is complete with lease-related cash outflow forecasts using recent data and with extensive in-model explanatory comments and charts.

The Data Entry version is a replica of the Master version without the data and completed forecasts. This version requires students to extract the most recent lease-related expense data from the sources identified in case Table 2, enter the data into the model, and follow instructions (embedded within the model) to run the lease-related expense forecasts using the linear regression, historical mean, and Monte Carlo simulation forecasting methodologies. When those tasks are completed, the Data Entry version will combine the expense forecasts with the contractual rent projections over the lease term to yield the tenant cash outflow forecasts for the three lease types under consideration—Gross, Modified Gross, and Net. The Data Entry version will then have the completeness of the Master version.  With either version, students will use the forecasted tenant cash outflow results (shown in Table 1 below) as an element of their analysis to develop their lease type recommendation.

Monthly expense time series data used in the case for all but New York City Class 4 commercial property taxes are national producer and consumer price indexes which are U.S. government statistics made available at the Federal Reserve Bank of St. Louis website. Producer price indexes are used for the Janitorial and Building Maintenance & Repairs expense categories. Consumer price indexes, rather than producer price indexes, are used for the Fuels & Utilities and Insurance expense categories as they provide the closest category fit. Some students may question the validity of using national price index data as a proxy for New York City commercial lease-related expenses. It is a valid concern, but one that needs to be weighed against the availability and cost of collecting area-specific ex-ante data in the short time the CFO has given the analyst to complete her assignment. Furthermore, as explained below, the key metrics that drive the tenant cash outflow forecasts are 1) the Month 1 lease expenses inferred from the lease price information that is specific to the landlord's New York City lease offered to the company and 2) the monthly rates of change of the national price indexes (annual rates of change for the NYC property tax expense.) The expense level national rates of change are assumed to be a close proxy to area-specific expense rates of change.

Commercial property taxes data are annual and specific to New York City, sourced from the New York City Department of Finance website which provides current as well as archived (back to 1981) Class 4 commercial property tax rates.

A note on terminology: Rent payment projections are the contractual monthly rent payments over the 60 months of the lease term. They are projections and not forecasts because they are known with certainty for each lease type. Expense forecasts are the monthly forecasts of the lease-related expense categories and since they are direct payments for actual expenses incurred in future months, they are not known with certainty and are called forecasts and not projections. Tenant lease cash outflow forecasts are the combination of the rent payment projections and the expense forecasts. Since an element of the tenant's future lease-related cash outflow is the forecasted tenant-paid expenses, the lease-related cash outflows are uncertain and, therefore, considered forecasts. Although there are more lease types existing in the commercial property leasing industry, each with its own specialized terms, the three types used in this case are the most common and represent the cash flow certainty versus uncertainty trade-off tenants will face in making a decision among any lease types.

# PEDAGOGICAL APPROACHES

The following are descriptions of four possible pedagogical approaches to the case. The approaches correspond, in order, to the assignments presented at the conclusion of these Instructors' Notes.

## Exclusively Classroom Discussion

Using an exclusively classroom discussion approach, instructors can provide students with the results of the tenant cash outflow forecasts (Tables 1 and 2) and expense ex-ante data scatter plots and box plots (Figures 2 and 3) extracted from the Master version of the case forecasting model. As an alternative, instructors can provide students with the Master version of the forecasting model. Using either the tables and figures provided in these Notes (Assignment 1 below) or the Master version of the forecasting model (Assignment 2 below), instructors can have students analyze the cash outflow forecast results and then make their lease type recommendation with supporting justification. The questions at the end of this Instructors' Notes document provide guidance and structure for the classroom discussion. The classroom discussion approach can be a very successful learning experience for students without having them collect expense data and run the forecasts themselves.

## Data Collection and Forecasting Using Case Forecasting Model

An alternate teaching approach is for instructors to provide students with the Data Entry version of the model and assign the following tasks: collect the expense data from the sources shown in case Table 2, enter the data into the model, run the forecasts, analyze the results, and develop their lease type recommendation (Assignment 3 below.) With these tasks completed, the instructor can lead the classroom discussion of students' recommendations.

## Data Collection and Forecasting Using Forecasting Programs

This approach is the same as the immediately preceding approach except that the instructor has the students using STATA, SPSS, or MATLAB (alternative Assignment 3 below.)

## Data Collection and Forecasting Using Forecasting Model Created by Student

Another approach is to assign students the task of creating their own model to forecast expenses and lease cash outflows from which they will develop their lease type recommendation (Assignment 4 below.) Instructors can provide students with the basic model structure schematic as shown in Figure 1 or with a modified (by instructor) version of the Data Entry forecasting model, each allowing students a foundation for developing their own model. The challenge to students and instructors of this approach is the time and effort required to build the model and validate its calculations and completeness, taking into account that there are many ways to construct the forecasting model. Instructors can use the case Master version of the forecasting model as a reference.

# CASE ANALYSIS

The students have a tenant perspective in the case since they are assuming the role of a financial analyst of a young company leasing space. That perspective will guide their approach to forecasting the tenant lease-related expenses and assessing the riskiness of the resulting forecasted tenant cash outflows for the three lease types. The student's personal degree of risk aversion will influence their analysis and lease type recommendation as will their perception of the degree of risk aversion guiding their company's decision-making.

The company's risk aversion is implied in the case by the CFO's statement: "*Our company founders are by their nature risk-takers, as am I, but for our company to succeed, and more critically, to survive, we need to be intelligent about our risk-taking.*" This statement does not directly specify that the company's organizational decision-making is based on a high, moderate, or low degree of risk aversion. Organizational risk aversion can vary by transaction, by stage of development/maturity of the company, and by the personal risk aversion of the managerial decision-makers. Later in these Notes we will explore the implications of students' interpretations of the meaning of the CFO's statement regarding risk and and its impact on their recommendation decision.

The objective of this case is for the student/analyst to recommend to the company's CFO one of three lease types—Gross, Modified Gross, or Net. Agreements between the company and landlord already have been made for lease space square footage, location, first-year rent, and annual rent increases, leaving only the selection of one of the three lease types available from the landlord.

From case Table 1, students will quickly recognize the two elements in which the three lease types differ: lease prices (rents) and the lease-related expense categories that are either included in the rent payment (from which the landlord will pay the lease expenses) or not included in the rent payment and paid directly by the tenant. Students also will realize that regardless of the lease type, the tenant pays expenses either through a tenant-paid expense-increment to the base rent, from which the landlord will pay expenses, or by the tenant directly paying expenses (writing monthly expense checks.) In either case, students will consider the forecast of tenant lease cash outflows (a combination of rent projections and expense forecasts in current and present value dollars) an important element in their analysis leading to their lease type recommendation.

Instructors can encourage students to analyze the allocation of future lease cash outflow risk between the landlord and tenant, represented by which party is responsible for directly paying uncertain future lease-related expenses. For example, with the all-inclusive Gross lease (first year annual lease price: $72 per sf), the landlord includes in the tenant's one monthly lease payment both the rent and a payment toward all lease-related expenses. The landlord, paying all lease-related expenses directly from the tenants' lease payments, assumes the risk of uncertain future expenses and the possibility that the expense portion of a monthly lease payment will not be sufficient to meet that month's actual expenses. For the tenant, the all-inclusive lease payment results in a certain monthly cash outflow over the five-year lease.

With the Modified Gross lease, some of the Gross lease risk assumed by the landlord shifts to the tenant with the tenant being responsible for directly paying their janitorial and fuels and utilities expenses. The landlord, not having to pay those expenses from the rent payment, offers a lower lease price ($64 annual per sf.)

The Net lease has the smallest lease payment ($50 annual per sf) but with the tenant directly paying all five lease-related expenses over the term of the lease. Students will quickly realize that this lease type has the highest cash outflow risk for the tenant.

## FORECASTING FROM INFERRED LEASE-RELATED EXPENSES

If the instructor chooses a cash flow forecasting assignment approach to the case, students with have the opportunity to perform a robust quantitative analysis in support of their lease type recommendation. In performing that analysis, students will forecast the five expense categories that, depending upon the lease type, will be the responsibility of the tenant to pay directly as a requirement of the lease. The expense categories are: Janitorial, Fuels & Utilities, Building Maintenance & Repairs, Insurance, and New York City Commercial Property Taxes.

To run the forecasts, the instructor can direct students to a specific forecasting program, such as STATA, SPSS, or MATLAB, or students can use the case EXCEL-based case forecasting model. The following is a description of the tenant cash outflow forecasting process used in the case model. The description can also be used to guide students in developing their own model.

The process involves three steps: first, forecasting monthly lease-related expenses over the term of the lease; second, for each lease type, projecting the contractual monthly rent payments (from case Table 1), with annual rent increases, over the term of the lease; and third, for each lease type, combining the forecasts of the tenant-paid monthly expenses with projection of the rent payments into an overall forecast of the monthly tenant cash outflows over the term of the lease.

Each expense cash outflow forecast is initiated with a Month 1 expense inferred from the landlord's rent schedule in case Table 1. The process of inferring lease-related expenses begins with case Table 1 showing the Gross annual lease price per square foot of $72 and the Net annual lease price per square foot of $50, a difference of $22. The Gross lease rent payment includes all lease-related expenses, while the Net lease rent payment includes none since, under this lease type, the tenant assumes responsibility for directly paying all expenses. Therefore, based upon the difference in lease price quotes, we can infer that the landlord is allocating $22, which includes an 8% expense risk premium, to all lease-related expenses. The calculation—$22 / (1 + .08) = $20.3704—extracts the 8% risk premium, yielding the total of the five lease-related expenses that the landlord has included in the Net lease rent payment. This expense total is on an annual basis since it was derived from annual lease prices.

To determine the Month 1 expense for each expense category, we use the New York City commercial space percent allocation information in case Table 2, adapted from https://www1.nyc.gov/assets/rentguidelinesboard/pdf/ie18.pdf. For example, by applying the Janitorial expense category percentage allocation of 13.83% to the total inferred annual expenses of $20.3704, we can determine the inferred janitorial annual expense per square foot included in the Gross rent payment as $20.3704 x 0.1383 = $2.8172.

Since the student will be forecasting five years of monthly expenses for the 10,000 square feet space the company is leasing, the inferred annual expenses will need to be multiplied by a factor of 10,000, and then divided by 12 to convert the annual expense to a monthly expense. For example, the monthly inferred janitorial expense for the 10,000 square foot lease is: $2.8172 x 10,000 / 12 = $2,347.69. This inferred expense is the Month 1 janitorial expense, from which the remaining 59 months' expense forecasts are calculated, explained further in the next section.

Although these calculations are performed within the case forecasting model, instructors can assign to students the in-class calculation of these inferred current expenses prior to providing the case Master or Data Entry forecasting model.

## TENANT CASH OUTFLOW FORECASTING MODEL

The case forecasting model is comprised of six sub-models (Figure 1): five to forecast the lease-related expenses using each of the three forecasting methodologies, and the sixth (labeled: Cash Outflow Forecast sub-model) to combine the expense forecasts (for the Modified Gross and Net lease types), with the rent payment projections for each lease type.

The two versions (Master and Data Entry) of the forecasting model have extensive embedded comments and explanations that will guide the student's understanding of the forecasting process.



**Figure 1**
**Case Forecasting Model**

**Linear Regression, Historical Mean, and Monte Carlo Simulation Expense Categories Rates of Change Forecasting Sub-Models**

Janitorial Services PPI Forecasts | Fuels & Utilities CPI Forecasts | Building Maintenance & Repair PPI Forecasts | Insurance CPI Forecasts | New York City Commercial Property Tax Rates

**Cash Outflow Forecasting Sub-Model**

Lease-Related Cash Outflow Forecasts for Gross, Modified Gross, and Net Lease Types using Sub-Model Expense Categories Forecasts

The case model uses three methodologies—linear regression, historical mean, and Monte Carlo simulation—to forecast the lease-related expenses. Students can use price indexes from the sources provided in case Table 2 for the ex-ante data from which they will forecast expenses. Both producer and consumer monthly price indexes for all expenses except taxes are used based on the availability of the closest lease-related expense definitions. All price indexes have at least ten years of ex-ante monthly data. New York City commercial property tax rates are available on an annual basis beginning in 1981.

## EXPENSE FORECASTING METHODOLOGIES

Since the term of the lease is five years, students will need to make a five-year forecast of monthly lease-related expenses, as the tenant is responsible for directly paying two of those expenses (the Janitorial and Fuels & Utilities categories) with the Modified Gross lease and all expenses with the Net lease (shown in case Table 1.)

Please note that in generating expense forecasts using each of the case methodologies, the metric of interest is the monthly expense rate of change (annual for the property tax expense) as it is used to propagate the forecast Month 1 inferred expense throughout the 60 months of the lease term. The use of this rate of change metric in each forecasting methodology is explained in detail below.

### Linear Regression Forecasting

Under the Linear Regression forecasting methodology, the case forecasting model uses Excel's FORECAST.LINEAR function (use the FORECAST function in Excel versions prior to Excel 2016.) This function extends the 120 ex-ante monthly price index data points (and 38 annual property tax rate data points) into a forecast of 60 monthly ex-post price index data points for all expense categories except commercial property taxes, for which five annual tax rates are forecasted. From the ex-ante and forecasted price indexes, monthly rates of change are calculated and then successively applied to expenses throughout the 60-month lease term forecast for each expense category, beginning with the Month 1 inferred expense. Property tax rate annual rates of change are successively applied annually throughout the five-year lease term. The calculations to infer lease Month 1 expenses are explained above.

To illustrate the linear regression forecasting process with the janitorial expense, we first forecast janitorial PPIs for the 60 months of the five-year lease term using Excel's FORECAST.LINEAR function. The explanation of this step also is included in the case forecasting model. Let's assume that Months 1 and 2 PPI forecasts are 123.857 and 123.997, respectively. The Month 2 rate of change, calculated as the rate of change from the Month 1 PPI to the Month 2 PPI, is 0.00096629. We already have calculated, in a previous section of these Notes, the forecast Month 1 inferred janitorial expense of $2,347.69. To forecast the Month 2 janitorial expense, we apply the Month 2 rate of change (0.00096629) to the Month 1 inferred expense ($2,347.69) resulting in a Month 2 janitorial expense forecast of $2,347.69 x 1.00096629 = $2,349.95. We then calculate each subsequent month's janitorial expense by applying each month's calculated rate of change to the previous month's calculated expense, and so on throughout the lease term.

Since commercial property tax rates are forecasted on an annual basis, the forecasting process differs slightly from the other expense forecasts for which ex-ante data is available on a monthly basis. We calculate the inferred annual property tax expense per square foot (sf) by applying the property tax expense as a percent of total expenses (36.96% from case Table 2) to total inferred annual expenses per sf of $20.3704, yielding a Year 1 inferred annual property tax expense of $7.5288 per sf. We find the inferred monthly tax expense for the lease by multiplying the annual inferred tax expense per sf of $7.5288 by 10,000 square feet leased and divide by 12 (months) to yield $6,274.07. We use this monthly expense amount as the tax expense for each month of forecast Year 1 of the lease.

We now begin the process of extending that Year 1 inferred monthly tax expense ($6,274.07) through the five-year lease term. Assume that the linear regression annual commercial property tax rates for Years 1 and 2 of the forecast are 10.846% and 10.877%, respectively. The Year 2 rate of change (from Year 1 tax rate to Year 2 tax rate) is 0.00286240. Applying this Year 2 rate of change to the Year 1 inferred monthly tax expense of $6,274.07 yields a Year 2 forecasted monthly tax expense of $6,292.03, which we use as the tax expense for each month of forecast Year 2. The same calculation is used to determine the monthly tax expense for the remaining years of the lease.

## Historical Mean Forecasting

The historical mean forecasting methodology simply uses the mean of the calculated monthly rates of change of the ex-ante price indexes as the forecasted constant monthly index growth rate throughout the 60-month forecast. This historical mean forecasting metric is an unbiased predictor that minimizes the mean squared forecasting error, as well as the sum of squared deviations of the sample data, whether the sample probability distribution is normal or not.

To illustrate this forecasting methodology, using the inferred forecast Month 1 janitorial expense of $2,347.69, if the historical mean monthly rate of change (from the Excel-generated Descriptive Statistics section of the case model) of the 120 ex-ante Janitorial PPI data points is 0.00088221, then the forecast Month 2 janitorial expense is $2,347.69 x 1.00088221 = $2,349.76. The janitorial expenses for each of the remaining 58 months of the lease term are forecasted using the same monthly growth factor of 1.00088221.

For the property tax expense, the inferred Month 1 tax expense of $6,274.07 will be the forecasted monthly tax expense for each of the twelve months of the first year of the lease. If, for example, the historical mean annual rate of change of the ex-ante New York City commercial property tax rates is 0.00483299, we use that mean as an annual tax expense growth rate throughout the lease term. Applying it to the inferred Year 1 monthly tax expense of $6,274.07, each of the twelve months of forecast Year 2 of the lease is $6,274.07 x 1.00483299 = $6,304.40. The same calculation is used to determine the monthly tax expense for Years 3 through 5.

A natural log transformation was performed on the ex-ante data for all expense categories to examine any benefits based on the expense data showing somewhat non-normal expense ex-ante distributions. The transformation showed means almost identical to the non-transformed data. Therefore, the case forecasting models use normally calculated means with this methodology.

## Monte Carlo Simulation Forecasting

The Monte Carlo simulation forecasting methodology determines a single mean monthly rate of change for each expense category (annual for the tax expense), then applies that mean to the inferred current expense in the same manner as the historical mean approach. The simulation process initially determines decile-based ranges of the ex-ante monthly expense rates of change calculated from the ex-ante price indexes and tax rates. The decile-based monthly rate of change frequency distribution for each expense category provides the probabilities of rates of change within each decile range. The simulation creates a random monthly expense rate of change within each of the ten decile bins constrained by each bin decile interval range. The randomly-generated rate of change within each of the ten bins is then weighted by the probability (based on the

frequency distribution) associated with the respective bin. Summing the ten weighted monthly rates of change yields an overall weighted average monthly rate of change.

For each expense category, the Monte Carlo simulation in the case forecasting model runs five thousand iterations, with each iteration producing its own weighted average monthly rate of change as described above. The average of the 5,000 weighted average rates of change is the simulation-based rate of change that is the expense monthly growth rate (annual for property tax expense) applied successively to expenses throughout the term of the lease.

Again using janitorial expenses as an example, if the overall simulation-generated weighted average monthly rate of change for the janitorial expense is 0.000637513, then the Month 2 expense forecast is the Month 1 inferred janitorial expense of $2,347.69 x 1.000637513 = $2,349.17. The janitorial expense for each of the remaining 58 months of the lease term is forecasted using the same simulation-generated growth factor of 1.000637513 for each month.

## Customized Expense Forecasting

The case forecasting model also allows for the customization of lease cash outflow forecasts by providing students with the option of choosing a specific forecasting methodology for each expense category. For example, they could choose the linear regression methodology to forecast the Insurance expense category, which shows the most linear ex-ante data trend; the historical mean methodology to forecast Janitorial and Building Maintenance & Repairs expense categories, which show low ex-ante data standard deviations (ex-ante data points relatively close to the mean); and the Monte Carlo simulation forecast for the Fuels & Utilities and Property Tax expense categories, which have the highest volatilities and show the most extreme high and low outliers. To assist in the customization decisions, expense category ex-ante data graphs are shown in the case forecasting model, standard deviations in Table 2 below, and scatter and box plots in Figures 2 and 3 below as well as in the case model.

## ANALYSIS LEADING TO RECOMMENDATION

In a purely discussion-based approach to the case without the cash outflow forecast results, students will focus on the combination of the tenant's rent and expense payments for the three lease types. Without access to the forecast results, the discussion will be in generalities. Gross lease rent is highest, but certain with no unknown expense payments. Net lease is lowest, but with the tenant paying uncertain future expenses. The Modified Gross lease is a middle ground. Students will recognize the trade-offs, but will find it difficult to make a lease type recommendation just from the information in case Table 1 and without having some knowledge of forecasted tenant future cash outflows and their associated risks under each of the lease types.

Instructors can address this discomfort and enhance the purely classroom discussion approach to the case by providing to the student Tables 1 and 2 and Figures 2 and 3 below, each taken from the case model and derived from the same forecasting run using recent data. Table 1 shows the five-year lease forecasted tenant cash outflows in current value and present value dollars segmented by contracted rent and tenant directly-paid expenses (dashboard results for a customized forecast are not shown.)

Students will observe that across all three lease types, the Gross lease has the highest forecasted total cash outflow, followed by the Modified Gross lease, with the Net lease having the

least total cash outflow over the term of the lease. The same relative results likely will hold for future forecasts performed by students using data current to the time instructors assign the case.

Several observations are apparent from the Table 1(a, b, c) dashboard below. The first is the similarity in tenant lease cash outflow forecasts for a given lease type across forecasting methodologies, in both current and present values dollars. The rent and related expenses components of those forecasts are also informative as to this similarity. Notice that for each lease type, the rent amounts are exactly the same across forecasting methodologies. Rent payments are

| Tenant Lease Cash Outflow Forecast Results Dashboard | | | |
|---|---|---|---|
| **Table 1.a Linear Regression Forecast Results** | | | |
| | **Current Dollars** | **Present Value Dollars** | **Present Value Dollars Percentage Allocation** |
| Gross Lease | $3,860,975 | $2,869,264 | 100.0% |
| Modified Gross | $3,794,351 | $2,821,153 | 100.0% |
| Rent | $3,431,978 | $2,550,457 | 90.4% |
| Related Expenses | $362,373 | $270,696 | 9.6% |
| Net Lease | $3,725,100 | $2,772,716 | 100.0% |
| Rent | $2,681,233 | $1,992,545 | 71.9% |
| Related Expenses | $1,043,867 | $780,171 | 28.1% |
| **Differences in Cash Outflows** | | | |
| Gross - Mod. Gross | $66,624 | $48,111 | |
| Mod. Gross - Net | $69,251 | $48,437 | |
| Gross - Net | $135,875 | $96,548 | |
| **Table 1.b Historical Mean Forecast Results** | | | |
| | **Current Dollars** | **Present Value Dollars** | **Present Value Dollars Percentage Allocation** |
| Gross Lease | $3,860,975 | $2,869,264 | 100.0% |
| Modified Gross | $3,795,695 | $2,822,049 | 100.0% |
| Rent | $3,431,978 | $2,550,457 | 90.4% |
| Related Expenses | $363,717 | $271,592 | 9.6% |
| Net Lease | $3,729,733 | $2,775,791 | 100.0% |
| Rent | $2,681,233 | $1,992,545 | 71.8% |
| Related Expenses | $1,048,500 | $783,246 | 28.2% |
| **Differences in Cash Outflows** | | | |
| Gross - Mod. Gross | $65,280 | $47,215 | |
| Mod. Gross - Net | $65,962 | $46,258 | |
| Gross - Net | $131,242 | $93,473 | |
| **Table 1.c Monte Carlo Simulation Forecast Results** | | | |
| | **Current Dollars** | **Present Value Dollars** | **Present Value Dollars Percentage Allocation** |
| Gross Lease | $3,860,975 | $2,869,264 | 100.0% |
| Modified Gross | $3,795,363 | $2,821,825 | 100.0% |
| Rent | $3,431,978 | $2,550,457 | 90.4% |
| Related Expenses | $363,385 | $271,368 | 9.6% |
| Net Lease | $3,729,784 | $2,775,820 | 100.0% |
| Rent | $2,681,233 | $1,992,545 | 71.8% |
| Related Expenses | $1,048,551 | $783,275 | 28.2% |
| **Differences in Cash Outflows** | | | |
| Gross - Mod. Gross | $65,612 | $47,439 | |
| Mod. Gross - Net | $65,579 | $46,005 | |
| Gross - Net | $131,191 | $93,444 | |

contractual and certain, that is, projected from the contractual first year base rent and annual rent increases.

Tenant-paid expenses combine the forecasts of the individual expenses the tenant pays directly over the term of the loan. The Gross lease has no tenant-paid expense forecasts because the rent has an all-expenses element from which the landlord will draw to directly pay all five lease-related expenses. The Modified Gross lease has tenant-paid expense forecasts that include two expense categories since the tenant directly pays those two expenses in addition to the rent. The Net lease also has tenant-paid expense forecasts that include all five expense categories since the tenant directly pays for those expenses in addition to the rent.

The differences in tenant lease cash outflow forecasts by lease type and forecasting methodology shown in Table 1 are derived from the forecast results, also shown in Table 1. They quantify the key trade-off of higher, but less risky, forecasted tenant cash outflows versus lower, but riskier, forecasted tenant cash outflows which are riskier. Based on these differences, for example, using the linear regression forecasts, students will consider the following questions: Is the $66,624 reduction of forecasted tenant cash outflows from the all-inclusive Gross lease to the Modified Gross lease sufficient for taking on the direct payment of two expense categories? Is the $69,251 reduction of forecasted tenant cash outflows from the Modified Gross lease to the Net lease sufficient for taking on the direct payment of three additional expense categories? Is the $135,875 decrease in forecasted tenant cash outflows from the Gross lease to the Net lease sufficient for taking on the direct payment of all five expense categories? Risk aversion plays a key role in the student answering these questions and is addressed below.

Table 2 shows the results of the individual lease-related expense forecasts. Each has only slight variation across forecasting methodologies, with the lowest variation from highest forecast to lowest among the three being 0.41% and the highest, 1.09%. This is understandable given that each forecasting methodology uses the same ex-ante data over the same period, the same inferred Month 1 seed expense for each methodology within each expense category, and the same forecasting period (the 60-month lease term.) This provides a powerful example to students of how valid and appropriate forecasting methodologies applied to the same ex-ante data should provide similar, but not necessarily identical results.

Table 2 also shows the standard deviations of the calculated expense monthly rates of change, referred to later in these Notes.

Students will naturally focus on the strong analytical and decision-making support of the tenant cash outflow forecast results provided in Tables 1 and 2. Instructors can emphasize to students that their analysis should extend to other factors that will influence their lease type recommendation, such as 1) the risk to the tenant that past volatility of the expenses will extend into the future and 2) the extent to which their personal and their company's risk aversions influence their lease type recommendation. We consider these two factors in the next two sections.

| Table 2 Lease-Related Expense Forecast Results | | | | | |
|---|---|---|---|---|---|
| | Lease-Related Expense Forecast Results by Methodology | | | Percent Difference in Expense Forecasts, Highest to Lowest | Standard Deviations of Expense Forecast Rates of Change: All Historical Years |
| Lease-Related Expenses | Linear Regression | Historical Mean | Monte Carlo Simulation | | |
| Janitorial | $144,876 | $144,590 | $143,518 | 0.95% | 0.25% |
| Fuels & Utilities | $217,497 | $219,126 | $219,867 | 1.09% | 1.13% |
| Build. Maint. & Repairs | $234,627 | $236,137 | $236,135 | 0.64% | 0.20% |
| Insurance | $68,268 | $68,546 | $68,535 | 0.41% | 0.37% |
| Property Taxes | $378,600 | $380,101 | $380,496 | 0.50% | 3.13% |

**Tenant Lease Cash Outflow Risk Assessment**

Following the traditional finance approach, students can consider the volatility of expense ex-ante data as the measure of risk for each expense category. The case provides several views of this expense category risk metric. Students can view the ex-ante price index time-series graphs in the case forecasting model or on the Federal Reserve Bank of St. Louis web pages (source links shown in case Table 2.) The standard deviations of expense ex-ante rate of change data are shown in Table 2. Scatter and box plots of ex-ante expense monthly rates of change data are shown in Figures 2 and 3 below. Note that all price index rate of change scatter plots have the same vertical axis maximum and minimum bounds so students can easily compare volatility across expenses. The scatter plot for property tax monthly rates of change has a slightly expanded vertical axis to capture more extreme high and low outliers.



**Figure 2**
**Comparison of Historical Lease-Related Expense Monthly Rates of Change**
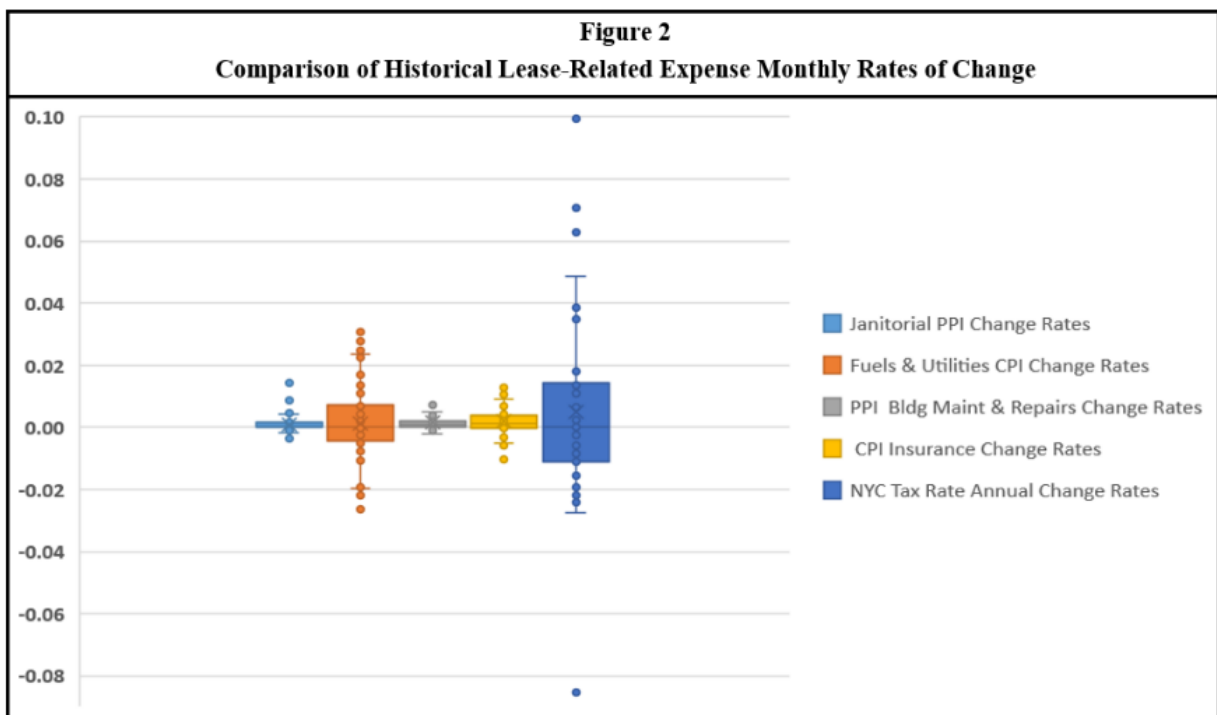
Students should notice two factors in their analysis. First, from case Table 2, the Modified Gross lease has the tenant directly paying two of five expenses categories (Janitorial and Fuels & Utilities), which are somewhat underrepresented within total expenses: 34.52% (13.83% and 20.69%, respectively), not 40% (2 of 5 categories.) Second, the standard deviations (the measure of volatility or dispersion of the ex-ante data, shown in Table 2) and box and scatter plots (Figures 2 and 3 below) of expense ex-ante monthly rates of change show that the volatilities vary, with the highest for property taxes (SD: 3.13%) and the lowest for building maintenance and repairs (SD: 0.20%.) These differences in expense percentage representations and past volatilities offer two additional dimensions of risk for students to consider.

**Figure 3**
**Scatter Plots of Lease-Related Expense Rates of Change**
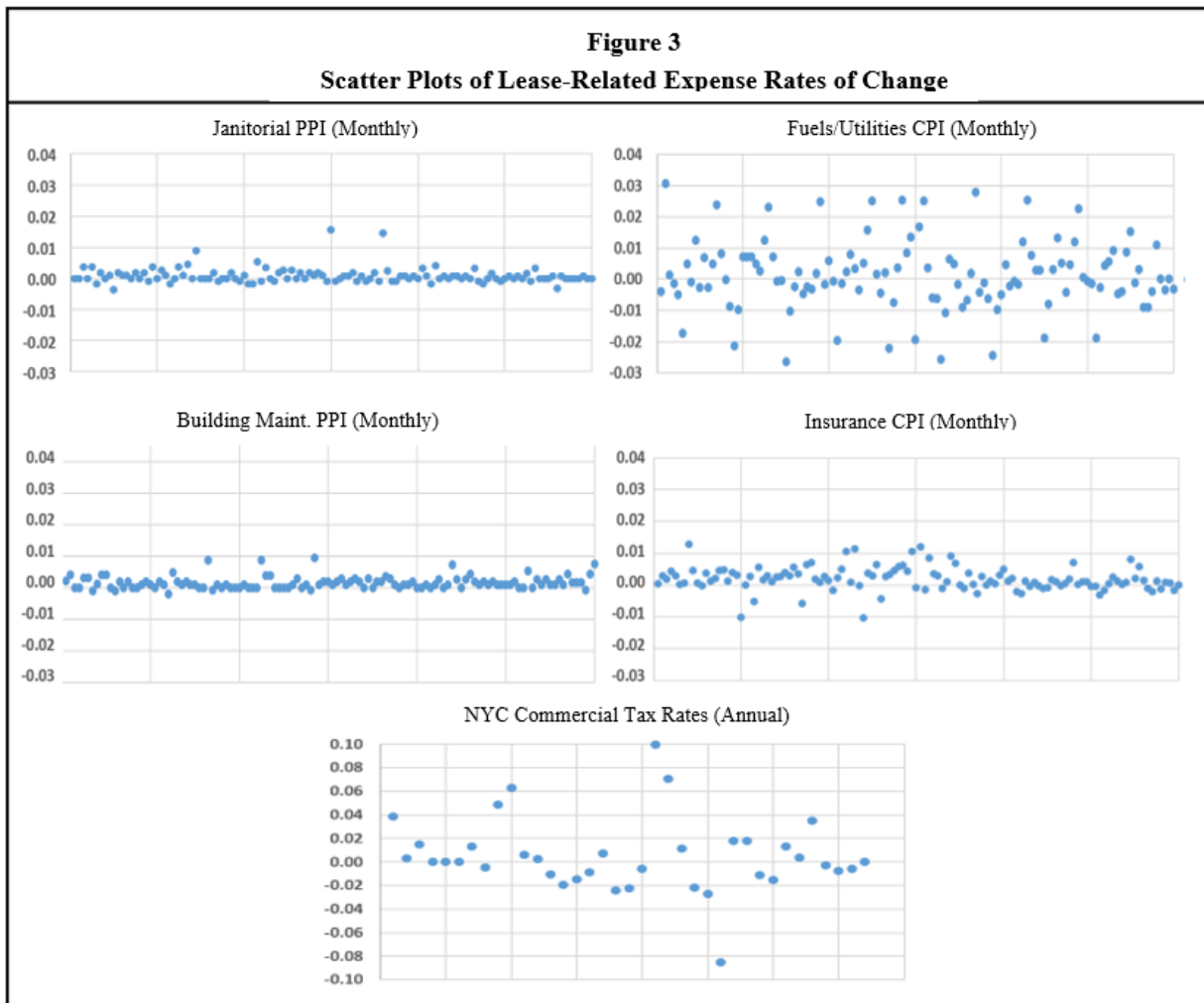
During the class discussion, some students may recognize that the all-inclusive Gross lease, with all expenses included in the rent payment and the tenant directly paying no expenses, does carry some risk to the tenant. The risk to the tenant, however, is of a different nature than assuming the responsibility for directly paying uncertain future lease-related expenses. If the expense portion of the all-inclusive Gross lease rent payment exceeds the actual lease-related expenses over the term of the lease, the tenant will overpay for expenses. The likelihood that this will occur is increased by the landlord adding the 8% risk premium to their best-estimate of lease-related expenses in order to mitigate the risk to the landlord of underestimating future expenses. This is another risk trade-off that needs to be considered by the student in making their recommendation.

**Impact of Students' and Company's Degree of Risk Aversion**

During the class discussion on tenant risk, instructors can introduce the impact of students' personal degrees of risk aversion and their perceptions of the degree of risk aversion that characterizes their company's decision-making. Instructors can ask students whether their personal

degree of risk aversion matches their perception of their company's and, if not, what ethical challenges does the difference present in developing their lease type recommendation.

The class discussion on this potential non-alignment of degrees of risk aversion may uncover differences in students' perceptions of the company's degree of risk aversion, as the only indication of that risk aversion comes from the company's CFO statement concerning risk-taking. Some students will consider the entrepreneurial mindset of the founders and managers of the young company as one of risk-taking, in which case they will project a low degree of company risk aversion. Others will focus on the young company's need to efficiently manage cash (as the CFO stated) and avoid the potential for an unexpected high cash outflow. Those students will infer a high degree of company risk aversion. Others may take the middle ground and assume the company is willing to take intelligent risks (CFO: "we need to be intelligent about our risk-taking."), but not those risks that would jeopardize the survival of the company.

Instructors can use the class discussion to explore how students' perception of the company's risk aversion influenced them in developing their recommendation. Students perceiving a high degree of company risk aversion may recommend the all-inclusive Gross lease even though that lease type shows the greatest forecasted cash outflows across forecasting methodologies, as shown in Table 2. Students recommending the Gross lease are willing to accept for their young company a greater certain cash outflow (projected, not forecasted) over the term of the lease to avoid the risk of directly paying uncertain forecasted future lease-related expenses.

Students perceiving a low degree of company risk aversion will be more likely to choose the Net lease. They will consider its lowest (of the lease types) forecasted cash outflow to be a significant benefit, possibly aligning their thinking with the statement by the company's CFO about the need for efficient cash management. Students choosing the Net lease are willing to accept for their company the risk associated with the tenant having the responsibility to pay all uncertain future expenses, including the most volatile Fuels & Utilities and Property Tax expense categories.

Those students who perceive a moderate degree of company risk aversion are likely to choose the Modified Gross lease as a hedge against excessive risk avoidance with the Gross lease and excessive risk taking with the Net lease.

## SUGGESTED ASSIGNMENT/CLASS DISCUSSION QUESTIONS

**Assignments**

Assignment 1: To complete your lease type recommendation assignment given to you by your CFO, you have used the information sources provided in case Table 2 to generate forecasts for the five expense categories associated with your company's upcoming lease. You combined those expense forecasts with the rent payments projections to yield the forecasted tenant cash outflows for each lease type. The results of those forecasts are shown in Tables 1 and 2 below. Using those results and the information provided in the case, write a report containing the following sections: an executive summary, a statement of the assignment you received from the company's CFO, your analysis of the forecasting model results, your lease type recommendation, your rationale for making your recommendation, and your reasons for not choosing the two lease types not recommended. Also, be prepared to present and support your recommendation to the class as well as participate in a class discussion of the issues considered in making the lease type recommendation. [Students are provided with Tables 1 and 2, shown above, for this assignment.]

Answer: The objective of this assignment and the three that follow are the same: in fulfilling the CFO's assignment, the analyst/student needs to develop a lease type recommendation along with their reasoning and justification. This Assignment 1 provides the simplest and most straightforward supporting data for the students' analyses leading to their recommendations. There are several key elements that the students will need to address in this and the following assignments in arriving at their recommendations. First, the fundamental trade-off that they will need to resolve is between the differences in forecasted tenant cash outflows and risk assumed by the tenant in taking responsibility for directly paying uncertain future lease related expenses. The forecasted cash outflow differences are shown in the bottom panel of Table 1.

The second element is the risk associated with each lease type, which can be addressed in multiple ways. First, the extent of the risk can be associated with the number of expense categories that the tenant has direct responsibility for paying. The Gross lease has none; the Modified Gross lease has two; the Net lease has all five. Table 2 provides students will the standard deviations of the ex-ante expense data. The expense category with the most ex-ante rate of change volatility is the property tax expense, which is paid directly by the tenant only in the Net lease. The second most volatile expense is fuels and utilities, which is paid directly by the tenant in both the Modified Gross and Net leases. The thread that ties the tenant cash outflow and risk trade-off elements together is risk aversion, which is addressed in discussion question 11 below.

A corollary issue that can be addressed with this and the following assignments is to compare and contrast the use and results of the three forecasting methodologies shown in Table 1. Students should notice the similarity in forecasts across methodologies, with the highest percentage difference between the highest and lowest forecasts only slightly greater than 1% for Fuels & Utilities. A conclusion to be drawn from the similarities of forecast results is that none of the methodologies are misapplied, that is, not appropriate for the forecasting aspect of the analyst's assignment.

There is no single correct answer or solution to this assignment, just a well thought out analysis of the data in Tables 1 and 2 and the integration of risk aversion into the analysis.

Assignment 2: To complete your lease type recommendation assignment given to you by your CFO, you have used the information sources provided in case Table 2 and the forecasting model, Commercial Lease Tenant Cash Outflow Forecasting Model – Master, to create forecasts of tenant lease cash outflows under three forecasting methodologies (linear regression, historical mean, and Monte Carlo simulation.) Using the forecasting results and statistical information provided in the completed model, develop a report containing the following sections: an executive summary of the report, a statement of your assignment, a description of the structure and approach taken by the forecasting model in addressing your assignment, your analysis of the forecasting model results, your lease type recommendation, your rationale for making your recommendation, and your reasons for not choosing the two lease types not recommended. Also, be prepared to present and support your recommendation to the class as well as participate in a class discussion of the issues considered in making the lease type recommendation. [Students are provided with the Commercial Lease Tenant Cash Outflow Forecasting Model – Master file for this assignment.]

Answer: The objective of this assignment is the same as Assignment 1: develop a lease type recommendation along with supporting reasoning and justification. The difference between this assignment and the previous one is that the instructor provides to the student the case

Excel forecasting model file: Commercial Lease Tenant Cash Outflow Forecasting Model – Master. This model provides the forecast results shown in Tables 1 and 2 above plus ex-ante expense data and forecast details including monthly forecasts for the entire lease term and associated statistical data and graphs. This assignment will require a longer student preparation time in understanding the model, but the extensive data provided by the model will allow a richer analysis by the students and subsequent class discussion.

Assignment 3: To complete your lease type recommendation assignment given to you by your CFO, you have decided to use the information sources provided in Table 2 and the forecasting model, Commercial Lease Tenant Cash Outflow Forecasting Model – Data Entry. Download, from St. Louis Fed website, as an Excel file the latest 121 months of price indexes for the following four lease-related expense categories: Janitorial, Fuels & Utilities, Building Maintenance & Repairs, and Insurance. Copy and paste the data (dates and prices indexes) into the forecasting model cell ranges B11 to C131 in the appropriate expense sub-models (spreadsheet tabs) of the model. For the Property Tax expense category, collect the most recent 38 annual tax rates from the New York City Department of Finance source. Tax rate years are shown as split years. Use the first of the two split years. For example, use year 1999 for split Year 99/00. Year 02/03 shows two half-year tax rates that can be averaged to 10.678. Year 08/09 shows two half-year tax rates and their average of 10.241%. Use the average tax rate for that year. The years and annual tax rates can be copied and pasted from the data source into cell ranges B11 to B48 and C11 to C48, respectively, in the New York City Prop. Tax Rates sub-model tab of the forecasting model. Follow the instructions in the model for running the forecasts using the three forecasting methodologies: linear regression, historical mean, and Monte Carlo simulation.

[Note: An alternative forecasting approach to this assignment is to have students forecast the lease-related expenses using either STATA or SPSS or MATLAB. Students can use the same data from the sources presented in the case.]

Using the forecast results and the information provided in the case, develop a report containing the following sections: an executive summary of the report, a statement of the assignment you received from the company's CFO, a description of the structure and approach taken by the forecasting model in addressing your assignment, your analysis of the forecasting model results, your lease type recommendation, your rationale for making your recommendation, and your reasons for not choosing the two lease types not recommended. Also, be prepared to present and support your recommendation to the class as well as participate in a class discussion of the issues considered in making the lease type recommendation. [Students are provided with the Commercial Lease Tenant Cash Outflow Forecasting Model – Data Entry file or, alternatively, access to a forecasting program for this assignment.]

Answer: The objective of this assignment is the same as Assignments 1 and 2: develop a lease type recommendation along with supporting reasoning and justification. This assignment, however, requires the students to collect the expense data from the sources shown in case Table 2 and then run the forecasts using either a forecasting program, such as STATA, or the case forecasting model, Commercial Lease Tenant Cash Outflow Forecasting Model – Data Entry, available to instructors upon request of the case author. The case model is explained in these Instructors' Notes as well as embedded instructions and comments in the model itself. After the students run the forecasts in the Data Entry version of the model, that model will have the completeness of the Master version of the model used in Assignment 2.

Assignment 4: Construct an Excel-based forecasting model to forecast the tenant lease cash outflows for each lease type for each forecasting methodology using each of the linear regression,

historical mean, and Monte Carlo simulation forecasting methodologies. Tenant cash outflows are the combination of the projected rent payments and the forecasted lease-related expenses over the 60 months of the five-year lease.

Expense forecasts are made from monthly forecasts of the four monthly lease-related price indexes over the 60 months of the lease and the annual tax rates over the five years of the lease. Using the data sources provided in case Table 2, download the latest 121 months of price indexes for the following four lease-related expense categories: Janitorial, Fuels & Utilities, Building Maintenance & Repairs, and Insurance. For the Property Tax expense category, extract the most current and archived Class 4 property tax rates from the New York City Department of Finance website. Years are shown as split years (ex. 99/00.) Use the first year of the two split years. For example, use year 1999 for split Year 99/00. Year 02/03 shows two half-year tax rates that can be averaged to 10.678. Year 08/09 shows two half-year tax rates and their average of 10.241%. Use the average tax rate for that year.

Infer the forecast Month 1 expenses for each expense category from the information in case Table 1. From your forecasted price indexes and tax rates, calculate the monthly rates of change (assuming tax rates change once per year at the beginning of the year.) Apply those rates successively to the monthly expenses, beginning with the inferred Month 1 expense, for each expense category. Combine your expense forecasts with the monthly projections of the rent payments to yield tenant cash outflows for each lease type and forecasting methodology.

Using the model results and the information provided in the case, develop a report containing the following sections: an executive summary of the report, a statement of the assignment you received from the company's CFO, a description of the structure and approach taken by the forecasting model in addressing your assignment, your analysis of the forecasting model results, your lease type recommendation, your rationale for making your recommendation, and your reasons for not choosing the two lease types not recommended. Also, be prepared to present and support your recommendation to the class as well as participate in a class discussion of the issues considered in making the lease type recommendation.

Answer: The objective of this assignment is the same as Assignments 1, 2, and 3: develop a lease type recommendation along with supporting reasoning and justification. This assignment, however, requires the students to build their own forecasting model to forecast tenant cash outflows for each lease type. A basic structure is shown in Figure 1 of this Instructors' Notes document. Model creation is a significant effort, not only on the part of the student building the model, but on the instructor verifying that each model built by the students in the course is done correctly. The instructor will have the Master version of the model to serve as a results reference as long as the same expense and case data are used. Student-developed forecasting models do not need to provide the extensive range of supporting data included in the case-provided Master and Data Entry models if the sole objective of the student-developed models is to create forecasts of the tenant cash outflows for each lease type.

[Note: The following discussion questions provide instructors with additional insights as to the analysis required of the students to successfully complete the above assignments.]

## Class Discussion Questions

1. Why do different lease types exist in the commercial leasing space? What trade-offs do tenants and landlords consider in the Gross, Modified Gross, and Net leases?

Answer: Different lease types provide both the landlord and tenant with the opportunity to manage the risk of uncertain future lease-related expenses associated with the lease and to select a lease type appropriate for their degree of risk aversion. There are trade-offs involved in the lease type decision and those trade-offs come with a cost.

Considering the trade-offs considered in the three lease types in the case, for the tenant, the Gross lease offers the highest projected cash outflows, but they are certain, whereas the Net lease offers the least forecasted cash outflows but 28% of those forecasted lease cash outflows (Table 1) are the tenant's direct payments for future uncertain expenses. The Modified lease offers the tenant a middle ground.

For landlords, the Gross lease offers the highest cash rent payment inflows, but the landlord assumes responsibility for directly paying all uncertain lease-related expenses from that rent payment. The Net lease offers the least forecasted cash inflows, but the landlord pays no expenses. The Modified lease offers the landlord a middle ground with a mid-range cash outflow and 9.6% of forecasted lease cash outflows represented by the tenant's direct payments for future uncertain expenses.

2. What are the advantages and disadvantages of using the linear regression methodology in forecasting lease-related expenses?

Answer: Linear regression forecasting is widely used for modeling the relationship between the values of two variables over a period of time. Linear regression makes the assumption that the relationship between the variables can be modeled as a linear function, that is, based on a straight line fitted between the ex-ante data of the two variables, then extended through that linear relationship into the forecasting period. In the case application, one variable is the ex-ante expense data and the other is the numeric sequence of months (years for property tax data.)

Linear regression forecasting is a clear and easily understood methodology and can work well for variables that exhibit a somewhat orderly linear trend. A disadvantage of this methodology is its inability to effectively model a relationship that is not approximately linear or is highly volatile with extreme outliers.

3. What are the advantages and disadvantages of using the historical mean methodology in forecasting lease-related expenses?

Answer: The historical mean methodology makes a generalization that future behavior of a random variable will exhibit the average, or mean, behavior of the past. An advantage of this forecasting methodology is that the mean includes all ex-ante data values and is the best measure of central tendency. If we assume that the ex-ante data points are independently and identically distributed, then the mean is an unbiased predictor. The mean minimizes the mean squared forecasting error regardless of the characteristics of the probability distribution of the ex-ante data and also minimizes the sum of squared deviations of the sample ex-ante data.

A disadvantage is that the mean can be overly impacted by extreme data outliers. In situations where the data has many extreme values or is significantly skewed in either direction, the median (mid-point of the ex-ante data) is an alternative forecasting metric.

The mean forecasting methodology uses the mean of the calculated rates of change of the ex-ante data, not the mean of the ex-ante data. The mean of the rates of change is applied initially to the inferred forecast Month 1 expense, then successively applied to each of the remaining 59 months of the forecast.

4. What are advantages and disadvantages of using the Monte Carlo simulation methodology in forecasting lease-related expenses?

Answer: The advantage of this methodology is that it accounts for ex-ante expense rate of change volatility, including extreme outliers. The simulation, using 10 decile-based interval bins, spanning the entire range of ex-ante rate of change data points, and 5000 randomized iterations, is a robust approach to estimating the mean expense monthly rate of change (annual for the property tax expense) to be used to develop the expense forecasts.

A disadvantage of this methodology is that there are more set-up steps, although the simulation is already in place in both the Master and Data Entry versions of the case forecasting model (with commented explanations of each step) and in any of the forecasting programs mentioned in these Notes. Understanding the setup steps provides students with a better understanding of and ability to reason through the use of the simulation results to support their lease type recommendation.

5. What observations can you draw from the expense and total tenant lease cash outflow forecasts using the three forecasting methodologies?

Answer: From the results shown in Table 1, likely to be similar to the results from student forecasts using more recent data, one observation is that the forecasted total tenant lease cash outflows, in both current and present value dollars, show consistency in their ordering across lease types and forecasting methodologies. The Gross lease has the highest cash outflows, followed by the Modified Gross with the second highest, and the Net lease with the lowest.

Another observation from information in Table 2 (derived from the same forecasting runs that created the data shown in Table 1) and the contributing factor in the consistency of the forecasted total tenant lease cash outflows, is that the expense forecasting results, shown in current dollars in Table 2, are very similar. For example, the Fuels & Utilities expense category shows a range of forecasts from $217,497 to $219,867, a 1.08% difference, which is the greatest difference among the five expense category tenant cash outflow forecasts. These consistent but not identical forecasts are the result of the application of valid and appropriate forecasting methodologies to the same ex-ante data.

6. Is there an advantage in customizing the forecast of tenant lease cash outflows by using different forecasting methodologies for different lease-related expenses?

Answer: The consistency of expense forecast results across methodologies, as shown in Table 2, diminishes the need for customization. However, selecting a specific forecasting methodology for each expense category allows the analyst to explore alternatives to a "one forecasting methodology fits all" approach. As explained above in the sub-section on forecast customization, students could choose the linear regression methodology to forecast the Insurance expense category, which shows the most linear ex-ante data trend; the historical mean methodology to forecast Janitorial and Building Maintenance expense categories, which show low ex-ante data standard deviations (ex-ante data points lie relatively close to the mean); and the Monte Carlo simulation forecast for the Fuels & Utilities and Property Tax expense categories, which have the highest volatilities and show the most extreme high and low outliers.

7. What is the benefit of showing forecast results in both current and present value dollars?

Answer: The lease requires of the tenant to make rent and expense payments over a five-year time frame. The concept behind present value is that dollars received in the future are worth less than dollars receive now. The present value, or discounting, calculation revalues future dollars into present dollars.

In analyzing the differences between the cash outflows for each lease type, the present value forecasts provide the same ordering results across lease types in current and present value dollars. Therefore, for analyzing the trade-offs between pairs of lease types, present value provides minimal value added to the analysis. However, if the choice were between leases of different terms, i.e., four years versus five years, or different rent and annual rent increases, the present value would provide comparable present value insights of the different streams of cash outflows.

8. What is your lease type recommendation? What factors did you consider in making your recommendation?

Answer: Relying strictly on tenant cash outflow forecast results, the recommendation would be the Net lease with its lowest forecasted tenant cash outflows across all forecasting methodologies. However, if risk mitigation is the focus, the recommendation would be the all-inclusive Gross lease with its certain tenant cash outflow. Recommending the Modified Gross lease would be a middle ground approach with the tenant sharing the risk of uncertain future expenses with the landlord.

Note to Instructors: Regardless of students' recommendations, instructors can require of students to provide a comprehensive justification for their decision which includes their analysis of the tenant cash outflow forecasts and the risks associated with their recommendation, their reasoning in resolving the tradeoff between lower forecasted cash outflows and higher risk to the tenant of directly paying for uncertain future expenses, and the influence of both their own and their perception of their young company's degrees of risk aversion.

9. Consider the possibility that prior to your finalizing your recommendation, your company's lease negotiators inform you that they may be able to negotiate a lower rent for only one of the lease types. Which of the lease types would you recommend for price renegotiation?

Answer: This question relates to the influence of personal and professional risk aversion on the student's lease type recommendation. Students making an all-inclusive Gross lease recommendation based on a higher degree of risk aversion likely will seek a negotiated reduction in rent on that lease type, and consider it strictly a cash outflow reduction bonus. Students making a Modified Gross or Net lease recommendation based on a lesser degree of risk aversion likely will see a negotiated rent reduction on either of these lease types as a means of making the tenant risk even more acceptable.

Instructors can consider the follow-up question: What rent reduction in the other lease types would make you switch your recommendation to one of those? This line of inquiry allows students to consider quantification of their incremental risk aversion.

10. What factors about the analyst's company and the CFO's statements influenced your analysis and recommendation?

Answer: The company is an eleven-month-old startup and, as many startups are, keenly focused on not running out of cash. The CFO's statement that she has a "responsibility to manage our company's cash very efficiently" supports that focus and with it the need to minimize cash outflow (achieved with the Net lease, at least on a forecasted basis) and avoid unexpected spikes in cash outflows (achieved with the all-inclusive Gross lease.) With the Modified Gross lease and even more so in the Net lease, the company assumes the responsibility, and risk, of directly paying uncertain future lease-related expenses over the five-year term of the lease. This presents a challenge to efficient cash management and a risk of potential spikes in expenses. Without the analyst directly asking the CFO about her willingness

to accept specific risks, the analyst can only infer her degree of risk aversion, possibly a proxy for the company's degree of risk aversion.

The CFO's statement that "our company founders are by their nature risk-takers, as am I," explicitly states a risk-taking mindset of top management. Some students may take this statement as implicit direction toward a Net lease recommendation, with its low forecasted tenant cash outflows but high tenant risk in assuming direct payment of uncertain future expenses. The CFO's next statement is "for our company to be successful, and even more critically, to survive, we need to be intelligent about our risk-taking," which might be perceived as a middle-ground risk aversion, leading toward a Modified Gross lease recommendation. There is no right answer here, just perceptions that guide professional judgment.

Instructors can guide the discussion to what really is meant by a "company's" degree of risk aversion since a company is a legal entity within which a group of individuals engage in and operate a business enterprise. Instructors can focus the discussion on the concept that the composite degree of risk aversion by the organization's decision-makers, especially its key decision-makers, such as the company's CFO, establishes the company's degree of risk aversion.

11. Given the opportunity, what questions would you ask the CFO in order to gain insights into her degree of risk aversion?

Answer: Charness, Gneezy & Imas (2013) provide two methods "to elicit and assess individual risk attitudes": elicitation (questionnaires) and multiple price list (binary choice between a series of paired gambles.). The authors' conclusion is that simpler methods provide practical advantages over more complex methods. The simplest method for the analyst to uncover the CFO's degree of risk aversion is through a series of questions concerning the trade-off of forecasted tenant cash outflows versus the risk of the tenant directly paying uncertain future expense. [Instructors can provide the Charness, Gneezy & Imas article to students to assist them in gaining insight into and answering this question.]

To illustrate, assume the analyst provides the CFO with the linear regression current dollar forecasting results in Table 1 above, which will provide the same relative cash outflow and risk considerations as the other two forecasting methodologies due to their results similarities. The analyst's questions will focus on the CFO's binary choice preference between any two of the lease types, with the CFO taking into account the trade-off between the forecasted tenant cash outflows and the riskiness of assuming responsibility for directly paying lease-related expenses.

The first line of questioning the analyst might pursue with the CEO is: Assume your choice of lease types is between the all-inclusive Gross and Modified Gross leases, that there is a $66,624 reduction of forecasted tenant cash outflows from the Gross lease to the Modified Gross lease, and that $362,373 (9.6%) of the total $3,725,100 Modified Gross lease forecasted tenant cash outflows over the term of the lease will be the forecasted (uncertain) expense payments while the remaining $3,431,978 cash outflows will be projected (certain) rent payments (Table 1.) Would the $66,624 reduction in forecasted tenant cash outflows from the Gross lease to the Modified Gross lease be sufficient to compensate for taking on the risk of assuming responsibility for making direct unknown payments for two expense categories with the Modified Gross lease?

If the CFO states that the $66,624 reduction of forecasted tenant cash outflows is not sufficient to compensate for the risk of assuming responsibility for making direct unknown payments for two expense categories with the Modified Gross lease, then the preference of the

Gross lease over the Modified Gross lease provides the analyst with an initial inference that the CFO may have a high degree of risk aversion.

Now let's assume the analyst explores the choice between the Gross and Net leases in the following way: Assume there is a $131,242 reduction of forecasted tenant cash outflows from the Gross lease to the Net lease, and that $1,048,500 (28.2%) of the total $3,729,733 Net lease forecasted tenant cash outflows over the term of the lease will be the forecasted (uncertain) expense payments while the remaining $2,681,233 cash outflows will be projected (certain) rent payments (Table 1.) Would the $131,242 reduction in forecasted tenant cash outflows from the Gross lease to the Net lease be sufficient to compensate for taking on the risk of assuming responsibility for making direct unknown payments for all five expense categories with the Net lease?

If the CFO states that the $131,242 reduction of forecasted tenant cash outflows is not sufficient to compensate for the risk of committing to making direct unknown payments for all five expense categories with the Net lease, the analyst confirms the initial inference that the CFO has a high degree of risk aversion. But what if, in light of her preference for the Gross lease over the Modified Gross lease, the CFO says that the $$131,242 reduction of forecasted tenant cash outflows from the Gross lease to the Net lease is sufficient to prefer the Net lease over the Gross lease? This preference will lower the analyst's inference of the CFO's degree of risk aversion.

The analyst can extend this line of questioning with the exploration of lease type binary-choice preferences for Gross versus Net leases and Modified Gross versus Net leases. For example, assume that after considering the differences in forecasted cash outflows and risks, the CFO prefers the Gross lease over the Net lease. This may indicate to the analyst a relatively high degree of risk aversion. The next preference binary-choice consideration for the CFO would be the Gross lease versus the Modified Gross lease. If the CFO still prefers the Gross lease, the higher degree of risk aversion is confirmed. If, however, the CFO prefers the Modified Gross lease over the Gross lease, the analyst will need to revise downward the CFOs degree of risk aversion.

Some students may point out that for a business person such as the CFO, we can assume that she is risk-averse, which is a rational trait, but to what degree? The CFO's responses to the questions allow the analyst to construct an ordinal scale of CFO's preferences among the lease types that provide insights into the CFO's degree of risk aversion.

Students will see that the analyst's binary choice preference questioning will reveal the CFO's degree of risk aversion as high, medium, or low, but not as an absolute number. The multiple price list method is more appropriate to determine a coefficient of risk aversion. But some students will recognize that the questioning also will reveal the CFO's ultimate choice of lease type. That is the dilemma facing the young analyst: How can I discover the company/CFO's risk aversion with this questioning process without discovering the lease type the CFO believes is best for the company, which is exactly what the CFO asked me to recommend?

Some students may suggest that the analyst determine the CFO's degree of risk aversion by asking her for her binary-choice preferences related to another subject matter. This approach is possible, but requires expertise and experience. Some students may suggest that the analyst directly ask the CFO to rate her degree of risk aversion as high, medium, or low. The CFO will likely repeat what she originally told the analyst: "In general, our company founders are by their nature risk-takers, as am I, but for our company to be successful, and

even more critically, to survive, we need to be intelligent about our risk-taking." She is providing risk-aversion guidance to the analyst without directly stating her or the company's degree of risk aversion.

The important role that risk aversion plays in the analyst developing her recommendation points to not only judgment but also subjectivity as key elements in completing the analyst's assignment.