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Inge Nickerson, Barry University

Charles Rarick, Barry University

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LETTER FROM THE EDITORS

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

The cases contained in this volume have been double blind refereed, and each was required to have a complete teaching note before consideration. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

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

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

Inge Nickerson, Barry University
Charles Rarick, Barry University

CREATING CUSTOMER VALUE AT ROCKY MOUNTAIN FIBERBOARD

John J. Lawrence, University of Idaho
Doug Haines, University of Idaho
Michele O'Neill, University of Idaho

CASE DESCRIPTION

The primary subject matter of this case concerns strategic planning, strategy formulation, and the alignment of functional strategies with the overall business strategy. Secondary issues examined include the incorporation of societal & environmental needs into business decisions, the strategic issues associated with staying focused, and bankruptcy. The case has a difficulty level of five. It is best suited for use in graduate level or advanced undergraduate courses given the scope of the difficulties the company faces and the complexity of the situation described. It is ideally suited for use in a capstone strategic management class because it requires the student to deal with strategic marketing, production and financial issues in an integrated manner. The case could also be used in a capstone marketing course, a small business management course, or in an entrepreneurship course. The case has been designed to be taught in 75 to 90 minutes and is expected to require four to five hours of outside preparation given the detailed financial analysis that can be done.

CASE SYNOPSIS

Rocky Mountain Fiberboard (RMF) produced particleboard out of bluegrass straw. It was established in 1999 as a joint venture between a processor of bluegrass seed and a Northwest American Indian Tribe. RMF was created to help solve the problem of waste bluegrass straw and was also part of the Tribe's effort to diversify the economic base of its reservation. RMF, however, experienced significant difficulties. It had lost \$1.9 million in 2001, had \$4.5 million in debt, and had no real working capital. Its Tribal owners were putting \$42,000/month into the company to keep it going. While a pending grant application with the U.S. Department of Agriculture offered hope of reducing its significant debt burden, the business was also experiencing difficulties attracting and retaining customers and was experiencing significant quality problems. Luke Waterman, a trusted Tribal member who was in the process of completing a business degree at a nearby university, had recently taken over as general manager and was faced with the task of overcoming the considerable financial, marketing, and production problems the business faced.

Luke was considering three options: (i) identifying additional funds to undertake a focused marketing effort and to implement process improvements in production; (ii) acquiring equipment and licenses to produce another product - wall panels - that would use RMF's strawboard; or (iii) declaring bankruptcy.

INTRODUCTION

Luke Waterman stared at Rocky Mountain Fiberboard's (RMF) 2001 financials. The company had lost \$1.9 million on sales of \$1.7 million last year. It had over \$4.5 million in debt, payables of over \$800,000, and starting early this year required \$42,000/month from its owners just to stay in business. RMF was experiencing significant difficulties.

The financials might hold the key to understanding what to do next, Luke thought, but he was distracted today. From the window of his office, Luke could see twenty wall panels that had just been unloaded into the plant. The wall panels came from Quickstart Building System's plant in southern Idaho where Luke and Frank Lewis, the president of RMF's board of directors, had just visited. They were considering partnering with Quickstart and had visited to learn more about the firm's product. Quickstart's wall panels were pre-fabricated walls made primarily from oriented strand board (OSB) and were used to speed up on-site construction of homes. The company had a market among developers that built many similar homes in the same development. Quickstart's owner was looking for a business interested in either producing wall panels under some type of license agreement or becoming a partner of the wall panel business. While there were a few challenges to overcome, Luke believed RMF's strawboard could replace OSB in the interior of the wall panels, thereby creating demand for strawboard.

Sitting in his office Luke wondered whether the wall panels represented the opportunity that could save RMF or were just another distraction for the company that already had too many things that needed to be done. Looking into the plant, Luke could see past the wall panels that had just been unloaded to where the production equipment sat idle for lack of orders. Production, when running, was plagued with a number of quality problems that resulted in as much as 20% of production on some days having to be downgraded. RMF had a large inventory of these second-quality, or shop grade, boards. The company had a hard enough time finding customers for its first quality boards, let alone for these shop grade boards.

Luke was frustrated and more than a little nervous. He had been associated with RMF for just a year, and he had come into the organization as simply a marketing intern and part-time undergraduate business student at a nearby university. Recently he had been asked to take over the general manager position at RMF, and he wanted to find a way to turn the company around and save the jobs that the plant created - jobs that were needed in the local community. Luke was a member of the American Indian Tribe that co-owned RMF, and it was his position as a trusted member of the Tribal community, combined with his business education and experience with the organization,

that had led to his being asked to assume the general manager position. While Luke was a little older than the typical undergraduate student and had some previous work experience, he was still in the process of finishing up his senior year of university coursework and felt somewhat overwhelmed by the task he now faced. "What have I gotten myself into," Luke thought to himself. "Last year I was a full time student with a marketing internship at RMF, and this year I am the general manager of a business that's in crisis."

COMPANY BACKGROUND

Rocky Mountain Fiberboard was established in March of 1999 as a joint venture between Bluegrass Growers, Inc. (BGI) and a Northwest American Indian Tribe. BGI processed and marketed bluegrass seed for inland northwest producers and was owned and managed by a group of bluegrass farming families in eastern Washington. The American Indian Tribe was a sovereign Indian Nation located on its own reservation in northern Idaho.

RMF was established in an effort to find at least a partial solution to the dilemma of coping with the waste straw from the harvest of bluegrass seed in eastern Washington and northern Idaho. Until recently, the bluegrass straw left over after the seed harvest was burned in the field. Burning was not only an efficient way to deal with the straw residue, but it also promoted high bluegrass yields in subsequent years and helped prevent disease and pest problems from developing.

The burning, however, created significant air quality problems during late summer and early fall. Citizen groups protested the burning on the basis of health and quality of life arguments. People with respiratory problems and elderly people were impacted the most, and during heavy burning public health officials recommended that such people remain indoors. Meanwhile, bluegrass farmers argued that field burning was critical to their being able to grow bluegrass seed profitably. Not surprisingly, this became a very emotional issue for many people in the region and polarized some communities.

In 1996 in the face of pressure from various citizen groups, the state of Washington banned field burning. Bluegrass farmers resorted to cutting and baling the bluegrass straw to remove it. Thus, along with reduced yields and higher incidences of pest and disease, bluegrass seed farmers were now incurring baling costs of approximately \$25 per ton. Further, farmers were faced with figuring out how to use or dispose of this residual straw.

To cope with the disposal issue, BGI hired an agronomist, Adam Davis, to help them devise a plan to use the growing piles of baled straw and to try to recover the cost of baling the straw each year. It was Adam's idea to create a business to use the straw to produce strawboard. Adam's plan was to then market the strawboard as an environmentally friendly, or "green", alternative to traditional wood-based particleboard. An informal business plan was quickly developed. The preliminary research conducted for it reported that strawboard plants in North Dakota and Kansas had sold out of all their production since they started up and that there were no strawboard plants

in the Pacific Northwest region. These facts led Adam to believe that a strawboard plant in the Pacific Northwest would have to compete primarily against wood based particleboard. It was felt that a small strawboard plant could compete successfully against wood based particleboard producers, even though they were larger, because of strawboard's superior product characteristics (see the next session for a discussion of these characteristics) and because a small plant would be more flexible, able to produce smaller runs of specialty items that could be sold at higher prices. Adam also felt that if run efficiently, a small strawboard plant could have lower production costs than the much larger wood particleboard competitors, particularly if good-quality used equipment could be located.

After some searching Adam eventually found a Canadian broker who knew of two used strawboard production lines available from a company in Australia that was getting out of the strawboard business. Having found the equipment and without conducting further market research, Adam then approached a neighboring American Indian Tribe to see if they would be interested in becoming a partner in the venture. The Tribe operated a very successful casino operation on its reservation but was also known to be interested in further economic development that would lead to greater diversification of the reservation's economy. The Tribe had designated 25% of its casino profits be put into such economic development efforts.

After listening to Adam's presentation on strawboard production, the Tribe agreed to partner with BGI to create Rocky Mountain Fiber. The initial agreement gave 50% of the ownership to the Tribe and 50% to BGI. Another agreement allowed the percentage ownership, which was based on the notion of "sharing units", to vary according to the level of resources each organization put into the venture over time. A board of directors consisting of five members was established to oversee the operation of RMF. Three of the directors were from BGI while the remaining two were from the Tribe. Frank Lewis, of BGI, was named the president of the board. Adam Davis was appointed to be general manager of RMF. The new entity's mission statement read:

Rocky Mountain Fiberboard is a joint venture created for the purpose of fabricating particleboard from bluegrass, wheat and other grain straw residue from Eastern Washington and Northern Idaho. Rocky Mountain Fiberboard was established in March of 1999 in an effort to find a solution to the unused straw residue.

RMF signed a 20-year lease agreement with the Tribe to use a Tribe-owned warehouse in Idaho as RMF's manufacturing facility. In order to acquire the necessary equipment, primarily the two used production lines from Australia, RMF borrowed \$4.5 million from Northwest Farm Credit Service in the form of a 10-year note payable. The loan was collateralized by a first lien position on the leasehold interest in real property and a first security interest in all equipment and machinery.

In addition, the U.S. Department of Agriculture (USDA) guaranteed \$3.5 million of the loan while BGI and the Tribe guaranteed the remaining \$1 million at \$500,000 each.

The production equipment was dismantled in Australia, containerized, and shipped to Idaho for reassembly. Rich Stanley, a former production supervisor with the Australian company from which the equipment was purchased, went to Idaho to help set up the equipment and train RMF employees on its use and maintenance. Adam Davis soon recognized that Rich's knowledge and experience with the equipment would be extremely valuable to RMF. In order to entice Rich to stay on with RMF, Adam offered Rich the position of production manager despite Rich's limited managerial experience and training. Rich accepted, and with Rich's help, the equipment was set up, and in July of 1999 RMF produced its first unit of strawboard.

RMF STRAWBOARD

Strawboard was produced from two ingredients: straw (composing approximately 96% by weight in RMF's panels) and Methylene Diphenyl Diisocyanate (MDI) resin (the remaining 4% in the panels). It had functional characteristics similar to and competed with traditional wood particleboard. Compared to wood particleboard, strawboard had several favorable characteristics. Bluegrass straw produced fibers that were longer than the wood fibers in traditional particleboard. When the MDI resin chemically bonded the straw fibers together, it gave bluegrass strawboard more stability and strength than wood particleboard, which had shorter fibers and used a urea-formaldehyde resin that simply provided the wood fibers a place on which to sit, as opposed to chemically bonding them. In addition, the bluegrass fibers possessed a natural resin, which when combined with the MDI resin provided superior moisture resistance. As a result, bluegrass strawboard absorbed less moisture and expanded much less than wood-based particleboard.

In addition to being a substitute for wood particleboard, another characteristic of strawboard was that it could be considered "green," and that appealed to certain consumer segments. An important selling point for strawboard then, was that it was "tree-free" and eliminated the need to cut down trees to produce it. Also, using bluegrass straw to produce the board eliminated the need to burn leftover straw, reducing air pollution. Lastly, the resin used specifically in strawboard, MDI, did not release fumes once it was formed into the board, while the urea-formaldehyde resin used in wood particleboard did. One other way in which strawboard was green, literally, was through its initial color and odor. The product itself had a slight green tinge and an odor similar to that of a freshly mowed lawn, only not as strong. Both the color and the odor became insignificant several weeks after the board was produced. Luke recalled that early on some freshly produced panels had been provided to prospective customers and that, unfortunately, they had reacted negatively to the initial smell.

Strawboard could be used in almost any application that used wood particleboard, including underlayment, shelving, home and office furniture, countertops, and cabinets. Indeed, in many such

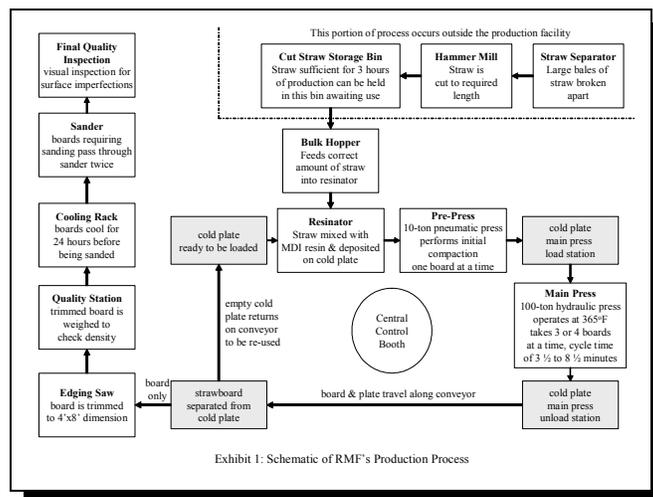
applications a laminate was placed on the strawboard or particleboard so that the final customer did not even see the actual board, e.g., countertops. Retail customers could use strawboard for home improvement projects or other home uses that might otherwise be met with wood particleboard. It could even be used in some home construction applications.

THE PRODUCTION PROCESS

In general, the process of producing strawboard required straw to be cut, combined with resin, deposited on a metal plate, and then cured using a combination of heat and pressure. Production started with the straw. According to terms of the joint venture agreement, BGI provided straw to RMF in exchange for sharing units. The sharing units represented an equity investment in the joint venture by BGI. BGI expected to at least cover the cost of baling the straw and valued the straw at \$25/ton when RMF opened in 1999. However, because RMF was unable to produce income for the partners and since no long-term pricing contracts were in place, by 2001 BGI was valuing the straw at \$40-\$42/ton. By this time, BGI realized that charging a higher selling price to a company that could not pay cash and instead 'paid' by allocating sharing units only resulted in BGI gaining additional ownership in a money-losing operation. BGI stopped providing straw in spring of 2002. RMF then began purchasing straw for a comparable price from Oregon Hay Products, Inc. located in northeastern Oregon. RMF never attempted to acquire straw from other sources or through a competitive bidding process.

In order for the straw to be used in the production process, it needed to be dry and free from deterioration, such as mildew. Because bluegrass seed was harvested and the leftover straw baled only once a year in the late summer, the storage conditions largely determined how much deterioration occurred. Most farmers stored straw bales in large piles under tarps. RMF acquired straw throughout the year in 4' x 4' x 8' bales and stored them outside of its facility under tarps, too. RMF's inspection assured the quality of incoming bales, but outside storage at its facility led to significant straw deterioration, and RMF had to dispose of approximately 15% of the straw it purchased. Furthermore, outdoor storage contributed to greater variability in moisture content of the straw, which made it more difficult to achieve consistent, high quality boards in production. RMF had plans for a straw storage facility that would help overcome these problems but did not currently have the capital to build such a facility.

The actual processing of the straw began by loading a bale onto a machine that broke up the bale. The straw then traveled along a conveyor specially built to remove contaminants. Next, it was gravity-fed into a hammer mill and cut to the required length. From the hammer mill, the straw was blown through a ductwork system to a "cut straw" storage bin. This first part of the production process was performed outside of RMF's building. A diagram of the production process is shown in Exhibit 1.



From this outside storage bin, augers were used to bring the cut straw inside where RMF had two separate, identical production lines. The production lines were among the first built by the equipment manufacturer that made them and were smaller, less flexible, and less automated than current models. The two lines combined had the capacity to produce approximately 12 million square feet of 3/4" strawboard annually when operating 24 hours a day, 7 days a week (the capacity increased with decreasing board thickness such that the combined capacity for 1/4" strawboard was approximately 38 million square feet).

The incoming cut straw went first into a bulk hopper. From this bulk hopper a 200-pound batch of straw was fed into a chamber, called a resinator, where it was mixed with resin. From the resinator the mixture traveled up an inclined belt that dropped it onto a "cold plate". A cold plate was simply a polished piece of metal upon which the straw/resin mixture would be pressed into a board. Increasing or decreasing the speed of the track on which the cold plates traveled controlled the amount of straw/resin mixture deposited. An operator checked the weight of each board to insure that the correct amount of straw/resin mixture had been deposited and adjusted the track speed if either too much or too little had been deposited.

After the straw/resin mixture was deposited on the cold plate, the plate went into a 10-ton pneumatic pre-press where initial compaction of the material occurred. From the pre-press the boards were moved to the main, 100-ton hydraulic press. The time in the main press was a function of the board thickness and ranged from 3.5 minutes for 1/4" boards to 8.5 minutes for the 3/4" boards. From the main press the boards traveled along a track to a station where an operator removed each board from its cold plate and pushed it into an edging saw that trimmed the board to its required 4' x 8' size. The firm also had the capability to cut the 4' x 8' sheets into smaller sizes as desired by customers, although this was rarely requested. After edging, the completed board was again weighed and, if acceptable, went to cooling racks. However, if a board was too light or too heavy the inspector marked the board as such and signaled to the operator in the central control

booth. In response, the operator might adjust the speed of the track on which the cold plates were loaded.

Once the boards had cooled they were inspected again for quality. Two problems were typically uncovered at this point. One, the surfaces of some of the boards had imperfections. Typically these were attributed to imperfections in either the main platens in the 100-ton main press (top-side imperfections) or the cold plates (bottom-side imperfections). Both the press platens and the cold plates needed replacing. Ideally, press platens needed to be replaced once every 5-7 years, while the cold plates needed replacing about once every 2 years. RMF had put off replacing this equipment in order to conserve capital. New press platens would cost about \$50,000/line and a new set of cold plates would cost \$30,000. The other typical problem was that the edges of some of the boards had imperfections. This occurred because the boards were trimmed to size before they had cooled completely, which resulted in a rough cut. While the boards would ideally be allowed to cool before they were trimmed, the cooling racks were sized for trimmed, rather than untrimmed boards. These boards with significant surface irregularities or edge damage were either downgraded to be sold at a discount or designated as salvage boards and set aside to be re-ground into new boards.

The final step in the process was sanding. Un-sanded boards were extremely smooth - too smooth to create a good bond with the various glues that furniture manufacturers used to attach laminate - so sanding was performed to create a rougher surface. The sanding process took off about a millimeter of material from both the top and bottom of the board, so boards that were to be sanded were made slightly thicker to meet width specifications once sanded. While not all customers required their boards to be sanded, currently a few customers did. After the boards were sanded there was a final, visual quality inspection. While the sander could eliminate some minor imperfections caused by the aging press platens and cold plates, the sander, because of its age and limited capability, was equally likely to create surface imperfections in the boards. Boards that came out of the sander with surface irregularities had to be downgraded.

Approximately 10% of all boards produced had to be downgraded or designated as salvage at some point in the process. Downgraded boards were structurally sound but had soft spots, surface irregularities, or nicks on the edges, while salvage boards contained defects that affected the board's structural integrity. Total downgrade and salvage rates varied greatly on a day-to-day basis. Only 2% of the boards were downgraded on good days, but on bad days, 20% or more of the production was downgraded. Generally the quality problems were greatest with the 3/4" boards. From a quality standpoint, RMF had been fortunate in 2001 - about 80% of its sales were 1/4" boards and only about 15% of its sales were of the more problematic 3/4" boards.

Compounding the quality problems in production was the disposition of the downgraded and salvage boards. Finding customers for downgraded boards had proved challenging because most customers willing to purchase downgraded boards were extremely price sensitive, and as such, were more likely to purchase downgraded wood particleboard, which was cheaper than downgraded strawboard. Because of this, almost 55% of the inventory RMF held was in downgraded boards.

Salvage boards, in contrast, were set aside to be re-ground to make new boards. RMF, however, did not own the necessary grinding equipment to do this. As a result, one end of RMF's facility was full of salvage boards that had been accumulating since the business opened in 1999, waiting possible re-grinding at some future time.

THE SITUATION IN FEBRUARY

Circumstances by February had reached a state of crisis. Pricing issues had continually frustrated RMF during its three years in business. The original informal business plan that Adam Davis assembled had a sales strategy that called for pricing initially at a discount compared to wood-based competitors to attract customers and then increasing the price over time based on strawboard's superior quality and environmental benefits. However, market prices for particleboard peaked about the time RMF opened for business and then dropped, from \$275 in January of 2000 to \$235 in January of 2002. RMF attributed the decline in prices generally to the slowing economy during these three years and an apparent oversupply of particleboard. Falling prices for particleboard and other wood-based alternatives to strawboard made it very difficult for RMF to increase its price much over time.

Sales had also declined steadily over the last year, from 1.5 million square feet per month in the first quarter of 2001 to less than 200,000 square feet per month currently. Only a single customer remained who could be considered a steady customer - a distributor in the Seattle area who regularly bought 3/4" boards. RMF was grateful to have this customer. To encourage the customer to remain with it, RMF absorbed the shipping costs for this customer. Previously, all prices were quoted FOB-Factory so that freight costs and thus, final sales figures differed by customer.

As a result of the steep decline in sales, RMF had laid off the majority of its employees. From a high of 30 employees in the summer of 2001, only six remained on payroll and had fixed annual salaries. In addition to Luke, the company currently employed an office manager, a production manager, two production team leaders, and a quality control inspector. These few employees performed all work necessary to supply the remaining customer in Seattle and handle what few orders came through from elsewhere. Susie Nelson was the office manager. Susie handled a variety of tasks, including accounting and human resource management functions and providing secretarial support. Rich Stanley, the former production supervisor from Australia, was the production manager. Rich, working with the two remaining team leaders and quality control inspector, operated the production equipment when there were orders and worked to refurbish the production equipment (to the extent possible without investing significant capital) when there were not. The marketing manager's position was currently open. The most recent marketing manager had been fired several months ago because he had taken little action to pursue and follow-up with potential customers. RMF had had several people in this position since the business opened, but none seemed effective. RMF had primarily recruited people from the wood particleboard industry,

and Luke found these individuals had difficulty shifting away from the "price is everything" marketing approach used in the commodity-based particleboard industry. Luke and Susie were picking up the marketing responsibilities where they could.

Compounding RMF's marketing and operations problems was the financial situation, which had become extremely tenuous. The company's 2001 Balance Sheet, Income Statement, and Statement of Cost of Goods Manufactured are shown in Exhibits 2-4. By this time, the company reported an annual net loss of almost \$2 million and the owners had incurred equity losses of just over \$600,000. In addition, RMF had long-term debt of \$4.6 million, of which \$950,000 was due in 2002. Given the poor financial conditions of the firm and in an attempt to head-off possible bankruptcy, RMF had approached its principle lender, Farm Credit Services, at the end of 2001 to work out a debt-relief schedule. As part of that plan, RMF had applied through Farm Credit Services to the USDA to have the \$3.5 million portion of the loan that the USDA backed converted into a grant. The grant conversion program was designed to help troubled businesses that had obtained these USDA-backed loans reduce their debt and increase their chance of survival. As such, the grant conversion process came with some expectation that the business would continue to operate as a going concern. The USDA, working with Farm Credit Services, was expected to make a decision on RMF's grant application by late March or early April. Based on conversations with Farm Credit Services employees, Luke expected that at least \$3 million of the loan would be converted into a grant, significantly improving RMF's debt situation.

From Luke's perspective, RMF appeared to have three options. Option 1 was to try to turn around the business while remaining focused purely on strawboard. To do this, Luke knew the company would need to find new customers. Option 2 was to team up with the firm Luke and Frank had just visited, Quickstart Building Systems, to produce wall panels comprised of OSB and strawboard. This would allow RMF to further differentiate its product from traditional particleboard. Option 3 was to simply shut the business down and perhaps declare bankruptcy.

To better analyze each of these options, Luke knew he needed to learn more about the strawboard industry generally, and RMF's competitors particularly, to better understand the competitive potential for RMF's product. Similarly, Luke thought it would be helpful to know more about the particleboard industry since RMF was trying to sell a substitute for traditional particleboard. Luke also felt that he needed to have more information about the marketplace opportunities for strawboard. After doing this research, Luke hoped that he would understand why RMF's original business strategy was not working and the firm was in such trouble now. The firm had had a business plan early on, a ready supplier for one of its raw materials, and a product that appeared to be in high demand. Luke wondered where RMF had gotten off track from its goal of being a successful producer of strawboard.

| Exhibit 2 | | |
|--|-------------|-------------|
| Rocky Mountain Fiberboard - Balance Sheet for the year ended December 31, 2001 | | |
| Assets | | |
| Current Assets | | |
| Cash | \$41,941 | |
| Accounts Receivable | 30,663 | |
| Finished Goods Inventory | 96,265 | |
| Raw Material Inventory | 7,109 | |
| Total Current Assets | | \$175,978 |
| Long Term Assets | | |
| Property, Plant and Equipment | \$5,415,252 | |
| Less: Accumulated Depreciation | 799,269 | |
| Total Property, Plant & Equipment | 4,615,983 | |
| Total Net Intangible Assets | 69,011 | |
| Total Long-term Assets | | \$4,684,994 |
| Total Assets | | \$4,860,972 |
| Liabilities | | |
| Current Liabilities | | |
| Accounts Payable | \$851,845 | |
| Current Portion of Long-term Debt | 953,005 | |
| Total Current Liabilities | | \$1,804,850 |
| Long Term Debt | | 3,658,380 |
| Total Liabilities | | \$5,463,230 |
| Owners Equity | | |
| Sharing Units - The Tribe | \$1,285,334 | |
| Sharing Units - BGI | 1,014,000 | |
| Retained Earnings | (972,423) | |
| Year-to-Date Earnings | (1,929,169) | |
| Total Owners Equity | | \$(602,258) |
| Total Liabilities and Owner's Equity | | \$4,860,972 |

| Exhibit 3 | | |
|---|-------------|---------------|
| Rocky Mountain Fiberboard - Income Statement for the year ended December 31, 2001 | | |
| Sales | | \$1,767,435 |
| Sales Returns and Allowances | | (51,262) |
| Freight Charges | | (354,601) |
| Net Sales | | \$1,361,572 |
| Cost of Goods Sold | | |
| Finished Goods Inventory, December 31, 2000 | \$113,200 | |
| Cost of Goods Manufactured | 2,623,831 | |
| Total Cost of Finished Goods Available for Sale | \$2,737,031 | |
| Less: Finished Goods Inventory, December 31, 2001 | 96,265 | |
| Cost of Good Sold | | \$2,640,766 |
| Gross Margin | | \$(1,279,194) |
| Operating Expenses | | |
| Selling Expenses | \$6,742 | |
| Marketing Expenses | 2,301 | |
| Product Research Expenses | 25,210 | |
| Administrative Expenses | 255,856 | |
| Total Operating Expenses | | \$290,109 |
| Operating Profit | | \$(1,569,303) |
| Net Interest Expense | | (359,866) |
| Profit (Loss) Before Taxes | | \$(1,929,169) |
| Net Income (Loss) | | \$(1,929,169) |

| Exhibit 4 | | | |
|--|---|-------------|-------------|
| Rocky Mountain Fiberboard - Statement of Cost of Goods Manufactured for the year ended December 31, 2001 | | | |
| Materials Inventory December 31, 2000 | Straw | \$0 | |
| | Resin | 37,440 | |
| | Release Agent | 1,005 | |
| | Propane & Nitrogen | 2,413 | |
| Total Materials Inventory December 31, 2000 | | | \$40858 |
| Direct Material Purchased | Straw | \$425,346 | |
| | Resin | 560,928 | |
| | Release Agent | 42,864 | |
| | Propane & Nitrogen | 94,178 | |
| Direct Material Purchased | | \$1,123,316 | |
| Less: Purchase Discounts | | 2,317 | |
| Total Direct Material Purchased | | | \$1,120,999 |
| Cost of Direct Materials Available for Use | | | \$1,161,857 |
| Materials Inventory December 31, 2001 | Straw | \$0 | |
| | Resin | 0 | |
| | Release Agent | 2,400 | |
| | Propane & Nitrogen | 4,709 | |
| Total Materials Inventory December 31, 2001 | | | \$7,109 |
| Cost of Direct Materials | | | \$1,154,748 |
| Direct Labor Used | Production Labor | \$611,519 | |
| | Quality Control / Inspection Labor | 19,620 | |
| | Packaging Materials | 37,023 | |
| | Straw Storage & Supplies | 7,550 | |
| Cost of Direct Labor | | | \$675,712 |
| Manufacturing Overhead | Equipment Repair & Maintenance | \$131,701 | |
| | Plant Electricity | 69,912 | |
| | Production Employee Taxes, Benefits & Insurance | 120,560 | |
| | Contract Management | 41,600 | |
| | Depreciation, Building & Plant Equipment | 320,615 | |
| | Building & Equipment Lease Payments | 43,706 | |
| | Miscellaneous Factory Consumables | 36,196 | |
| | Miscellaneous Factory Supplies & Services | 15,372 | |
| | Off-cut & Waste Straw Disposal | 9,568 | |
| | Training | 4,141 | |
| Cost of Manufacturing Overhead | | | \$793,371 |
| Cost of Goods Manufactured | | | \$2,623,831 |

INDUSTRY RESEARCH AND EVALUATION

Luke identified three other companies in North America that produced strawboard: PrimeBoard, Inc. in Wahpeton, North Dakota; Prairie Forest Products, in Hutchinson, Kansas; and Isobord Enterprises in Elie, Manitoba, Canada. All three of these competitors were significantly larger than RMF and produced particleboard primarily out of wheat straw, which had properties similar to bluegrass straw. All three also promoted the "green" characteristics of their strawboard in addition to its superior qualities relative to particleboard.

PrimeBoard was the oldest manufacturer of strawboard in North America. The privately-held company began operations in 1995. PrimeBoard's plant employed 70 people and produced approximately 30 million square feet of strawboard in 2001. The plant could produce boards from 3/8" to 1-1/4" and had sufficient capacity to produce as much as 60 million square feet of 3/4" strawboard per year. That was five times RMF's capacity of approximately 12 million square feet of 3/4" strawboard per year.

Prairie Forest Products, another privately held company, had opened its strawboard plant in 1997. It operated 24 hours a day, 7 days a week, and produced approximately 20 million square feet of strawboard in 2001. The company focused mainly on producing 7/16" and 5/8" boards. The firm was in the process of installing a second production line that would effectively double its capacity. Isobord Enterprises was perhaps the most significant threat to RMF among the strawboard producers because the chemical company giant, Dow Chemical, had recently acquired it. Isobord began production in 1998 with a \$100 million plant that had the capacity to produce 144 million square feet of 3/4" strawboard per year. The plant produced boards that ranged in thickness from 1/2" to 3/4". Isobord products were sold through conventional wood particleboard distribution channels, as well as directly to some large manufacturers. Still, the company ran into financial trouble and declared bankruptcy in February of 2001. Dow acquired the company out of bankruptcy in May of 2001. At the time of the acquisition, Brad Money, the Dow executive charged with running the business, was quoted as saying, "We have always believed in the product, and we continue to believe that it has the potential for strong commercial appeal with consumers and contractors"(McCoy, 2001). At the same time, a Home Depot spokesperson predicted that the acquisition would be "a strong factor in bringing environmentally conserving wood replacement panels more into the mainstream with consumers" (McCoy, 2001).

Even though Luke found only three other strawboard producers, RMF's competition consisted of traditional wood particleboard producers, too, since RMF was trying to replace their product. Indeed, Luke was more hopeful about prospects when he found that particleboard accounted for as much as 18% of the total wood- and agrifiber-based products produced in the U.S. (Sellers, 2001). Luke identified the leaders of the wood industry that produced particleboard among other wood products. Two of the top U.S. producers of particleboard were Georgia-Pacific and

Louisiana-Pacific. Boise Cascade and Potlatch were other important competitors that had plants nearby RMF in the northwest (see Exhibit 5).

| Exhibit 5 | | | | |
|---------------------------|-------------------|--------------------------|---------------------------------------|-------------------------------------|
| Wood Products Competitors | | | | |
| Company | Total Sales (\$M) | Wood Product Sales (\$M) | Particleboard Production ¹ | Particleboard Capacity ¹ |
| Georgia-Pacific | 25,016 | 1,998 | 967 | 1,362 |
| Louisiana-Pacific | 2,360 | 2,312 | 488 | 1,000 |
| Boise Cascade | 7,420 | 2,400 | 198 | 200 |
| Potlatch | 1,752 | 518 | 67 | 70 |

¹All figures are in million square feet.
Source: <http://ccbn.tenkwizard.com>

Georgia-Pacific was a diversified wood and paper company headquartered in Atlanta, Georgia that offered consumer goods, building materials, chemicals, and other industrial products. In fact, wood products represented less than 8% of the company's \$25 billion annual revenue. However, Georgia-Pacific was the top producer of industrial panels, which included particleboard. It had no particleboard plants in the northwest. In contrast, Louisiana-Pacific was headquartered in Portland, Oregon and was a more focused wood products company with \$2.4 billion in sales. Relative to RMF, Louisiana-Pacific's closest particleboard plant was in Missoula, Montana, and it accounted for 43% of the company's particleboard capacity.

A company closer regionally was Boise Cascade, based in Boise, Idaho. Even though Boise Cascade was one of the largest wood products companies, with sales of \$2.4 billion, it was not a leader in particleboard, and its only particleboard plant was in LaGrande, Oregon. The plant ran at 99% of its 200 million square feet capacity for a 3/4" basis.

Potlatch Corporation was another nearby competitor, and it had \$1.8 billion in annual sales, of which \$0.5 billion was in wood products. Potlatch's particleboard plant had a capacity of 70 million square feet of 3/4" board and ran at 96% of capacity. Though almost seven times larger than RMF's plant, the Potlatch plant was about one-third the size of Boise Cascade's. This niche size reflected Potlatch's belief, "...that competitiveness in this industry is largely based on individual mill efficiency, rather than the number of mills operated, and on the availability of resources on a facility-by-facility basis" (Potlatch 10K405 report).

In conducting this study of the industry and RMF's competitors, Luke had uncovered a number of challenges facing RMF, and to some extent, the strawboard industry in general. One

challenge was that even though strawboard was theoretically stronger and offered better moisture resistance than wood particleboard, these advantages were not widely understood by the general public and had been difficult to communicate to RMF's early prospective customers. Luke had realized in the course of his research that educating customers about the various properties of strawboard was a challenge mainly because the market in general remained undeveloped due to the small size of the strawboard industry. It constituted less than half of one percent of the total wood- and agrifiber-based products produced in the U.S. (Sellers, 2001).

The industry's small size and undeveloped market also meant that prices were generally negotiated for individual sales or contracts, leaving Luke unable to find industry-wide strawboard prices for comparison purposes. Instead, to get an idea of the appropriateness of RMF's pricing for its most popular size in 2002, \$300 per thousand square feet for 3/4" boards, he compared it to the January price of 3/4" particleboard, the substitute product against which RMF was competing. Luke determined that RMF's price was more than 25% greater. Even though strawboard was stronger, more moisture resistant, and environmentally friendlier than particleboard, Luke wondered whether it could justify such a premium given the challenges RMF faced educating its customers.

Luke also came to realize that leading companies in the wood industry had "deep financial pockets." Moreover, they typically owned vast forest resources, ones that could withstand seasonal weather and be harvested nearly year around. In contrast, residual straw was harvested annually and its quality was highly susceptible to the timing of rain and temperature fluctuations, which could result in highly variable raw material quality and cost. Luke had also found that one of RMF's strawboard competitors, Isobord Enterprises, took a somewhat novel approach to dealing with straw acquisition. It didn't actually purchase straw, but rather purchased the right to go on to farmers fields to remove the straw itself after harvest. Isobord then used a fleet of 38 tractors to bale and remove the straw from farmers' fields, giving it greater control of straw quality and cost (Christianson, 1999).

While straw represented the primary ingredient in strawboard by weight, the resin used in the production of strawboard actually presented a greater competitive challenge to the industry because of its cost. MDI, the resin used for strawboard was three to five times more expensive than the urea-formaldehyde resins used in wood particleboard (Sellers, 2001). In response, Luke knew of three separate development projects focused on finding alternate resins for use in strawboard. One involved a consortium of European companies that had developed a patented process that made the same urea-formaldehyde resins used in wood particleboard useable in strawboard. The last that Luke had heard, the consortium planned to license the use of this technology beginning in the first half of 2002. A second alternative on the horizon was the use of soy-based resins. A small start-up company in Iowa had developed and tested soy-based resins in both wood particleboard and strawboard, and the evidence was that they would work with either. The company was in the process of building a production facility, which it expected to complete later in the spring. The resins were to be priced comparable to urea-formaldehyde resins. Finally, a Canadian research

laboratory had reportedly developed a substitute urea-formaldehyde type of resin that would work with straw. It was unclear if or when this resin would be available and how it would be priced.

MARKET OPPORTUNITIES

RMF's original strategy had been to exploit strawboard's green attributes and the lack of strawboard competitors in the Pacific Northwest. Luke felt that markets for "green" products should still be the most receptive to strawboard and would offer the greatest opportunity for obtaining price premiums over traditional particleboard. These markets could be pursued through either selling to manufacturers interested in using green materials in their products or through selling directly to building material distributors or retailers who featured such products. Before going further into either of these areas, Luke first decided he needed an understanding of the end green consumer.

Luke found that the Green Gauge Report (2000), published annually by Roper-Starch, provided a reasonable overview of the U.S. public's interests and intentions with respect to buying green products. This report classified people into five broad categories that ranged from "true-blue greens" to "basic browns." True-blue greens, who represented about 11% of the population, were the most pro-actively green group in the U.S. They recycled, composted, wrote letters to their congressional representatives, and volunteered to help with environmental causes. These people tended to be the ones to most go out of their way to buy green products. The research indicated, however, that true-blue greens were only willing to pay about 7% more, on average, for green products compared to a competing non-green product. The other group identified that also tended to buy green products was the "greenback greens." These people, while less likely to make lifestyle changes in support of a better environment, were more willing to contribute financially. They did this both by donating money to environmental organizations as well as by paying more for environmentally friendly products - up to 20% more, on average. This group, however, represented only about 5% of the U.S. population. Luke did note that both greenback greens and true-blue greens were somewhat more likely to live in the West than in other regions of the country.

With this basic understanding of the U.S. consumers' disposition toward green products, Luke turned to the retail market for green products, in particular green building materials. In conducting this research, Luke found an interesting article in Environmental Building News that provided a useful profile of green building material retailers (Yost, 2001). It turned out that there were only a small number of general building material retailers nationwide that specialized in green products. These retailers, however, tended to be concentrated in Colorado, the Pacific Northwest and California, which meant that RMF was the closest strawboard manufacturer to the majority of these outlets (i.e., those in the Pacific Northwest and California). The article had indicated that most of these retailers regularly invested significant time in educating their clients about green building materials and many had branched into green building design and consulting. Luke found this very promising, as he knew that educating consumers about the desirable properties of strawboard was

a significant challenge for both RMF and the strawboard industry generally. Many of these retailers were also making use of the Internet to extend their customer base beyond their local business. The article had also indicated that there were about 60 specialized green building material retailers who focused on only a very narrow range of products (e.g., energy conservation products or certified lumber). A complete directory of green building material retailers - the GreenSpec directory - was published by the Environmental Building News organization.

Both the general and specialized green building material retailers tended to receive a premium price for their products relative to comparable, non-green building materials, although Luke had been unable to ascertain an average price premium. Luke did know that the one green building material retailer that was carrying RMF's strawboard - the Environmental Home Center in Seattle - was selling it at about a 20% price premium over comparable retail particleboard prices. Luke also knew that a few larger building product chains were beginning to carry a few products that could be considered green, but were generally not making the stocking of such items a priority and were not doing much to educate their customers about their benefits. While these chains also charged a small premium for green products, Luke knew they were reluctant to stock green products that were significantly more expensive than non-green alternatives.

On the manufacturing side, Luke felt that furniture manufacturers represented the most promising target group of customers to RMF. Furniture makers used a lot of wood particleboard to make less expensive home furniture and office furniture, particularly tables, bookshelves, cabinets, and dressers. The particleboard was either painted or, more commonly, laminated or veneered. Since a laminate adhered to strawboard extremely well, strawboard was ideally suited for use in these applications. Luke felt there were opportunities to sell to either to true "green" furniture manufacturers or to more mainstream furniture manufactures that might be leaning toward using green materials in some of their products.

Luke had found several lists of green furniture manufactures, and based on these lists estimated that there well over 100 such organizations spread around the U.S. As was the case with building supply retailers, these companies tended to be small, and many of them specialized on either one type of furniture (e.g., garden furniture, office furniture) or one type of material (e.g., reclaimed lumber, recycled plastics). Luke was able to find a handful without too much searching who were already using a competitor's strawboard in their furniture. Baltix, in Long Lake, Minnesota, for example, was using strawboard in a variety of desks, bookshelves, filing cabinets and office dividers. Luke found similar companies using strawboard to produce office furniture in Illinois and in Ontario, Canada. The most interesting, and perhaps most promising green furniture company Luke found in his searching was Brandrud Furniture, in Seattle, Washington. Brandrud had been in business since 1955, but only started using green materials in their products in the last five or six years. The company, however, had found that such materials worked well, and currently used some green materials in almost all of their products. Brandrud was making extensive use of

strawboard to build the interior frames of many of its furniture pieces. Brandrud's current source of strawboard was Isobord, in Alberta, Canada.

Luke had looked at the more mainstream furniture manufacturers as one of the projects he had done for RMF as its marketing intern. At that time, he had developed a model to help him identify those furniture companies that would have the greatest potential interest in RMF's strawboard. The model was based primarily on screening four factors: (i) how the company positioned itself in terms of quality (a company that positioned itself as high quality was more attractive to RMF); (ii) to what extent the company positioned itself as "green"; (iii) to what extent the company appeared to use particleboard in its products; and (iv) the geographic proximity of the company. Luke had obtained data on over 80 U.S. furniture manufacturers and ranked each according to his model to separate good prospects from those that seemed unlikely candidates to use RMF's strawboard.

One of the top scoring companies was Herman Miller, Inc., the Zeeland, Michigan office furniture manufacturer that frequently showed up on Fortune magazine's list of most admired companies. Luke had contacted Herman Miller partly to assess the validity of his model. Herman Miller had expressed some interest in the strawboard because of its "green" qualities, but the company had some concerns about the environmental safety of the MDI resin used in production and had asked for certain testing to be done before it would seriously consider using the strawboard in its products.

While the MDI resin had been certified in general as a result of tests completed by its manufacturer, separate EPA certification was possible and recommended for each unique application involving MDI and formaldehyde resins. Resins could give off toxic fumes and were regarded as hazardous materials unless the particular combination of fibers and bonding process rendered the particular combination environmentally benign. Luke knew that RMF had not invested in the testing required to certify and substantiate such claims due to its cost. However, in his research, Luke discovered that lack of funding for certification was a common problem for the strawboard industry generally (Gorzell, 2001). Even so, all strawboard was currently being made with MDI or an equivalent resin, and many customers accepted the safety of MDI in strawboard without special EPA certification.

Having gathered more information on RMF's strawboard competitors, the characteristics of the particleboard industry, and the market opportunities for strawboard, Luke believed he was ready to consider RMF's options.

OPTION 1: FOCUS ON STRAWBOARD

Turning around the business while remaining focused on strawboard production would at a minimum require finding new customers and solving some of the quality problems RMF had been experiencing in production. The lack of customers seemed the more pressing need. Luke was

unsure whether RMF should continue to pursue a variety of customers in the long term, but was confident that in the short term it should focus on either building supply retailers or furniture manufacturers. Luke felt that furniture manufacturers might represent the most promising target group of customers.

Luke had been encouraged by Herman Miller's interest when he had approached them, but knew that he lacked the marketing resources to follow-up on the company's requests for certification testing or even continue contacting other companies that scored high on his model. Luke also wanted to approach potential green-leaning furniture customers with care because he felt that there was a lot of education that needed to occur for them to accept strawboard. In particular, Luke felt that RMF needed to approach these companies' marketing managers rather than their purchasing managers. He believed that if the marketing managers were convinced of the quality and environmental benefits of strawboard, they would make this an element of the marketing and design programs at their own company and essentially force designers to specify strawboard in their products. Alternatively, if RMF went directly to purchasing managers, Luke was afraid he would have to compete head to head with wood particleboard based solely on price, and he knew this was a competition that he could not win.

To pursue this marketing strategy, Luke needed to obtain some additional financial resources to not only hire and support a marketing person, but also conduct any tests that potential customers might need. Some money would also be needed to address the quality problems on the operations side, as these problems were not only costing them money but had also cost them several customers over the last year. What was needed to make this effort work was an infusion of cash for these strategic investments. Luke knew that BGI didn't have additional resources to put into the company and that his Tribe's leaders were concerned about putting significant additional resources into the company without a more concrete plan to achieve profitability.

OPTION 2: PARTNER WITH QUICKSTART BUILDING SYSTEMS

At the end of 2001, RMF had retained the services of Stanford Financial, a financial consulting company, to find additional equity investors that might help RMF with its present situation. Stanford Financial had initially approached the Tribe on behalf of another client, Quickstart Building Systems. Quickstart manufactured wall panels on a semi-automated production line in Burley, Idaho and was in the process of acquiring new, more fully automated equipment. Quickstart's owner was looking for a business interested in either acquiring (or leasing) the Burley facility's existing semi-automated equipment, moving it to its own facility, and using it to produce wall panels under some type of license agreement, or entering into a partnership to share the ownership and management of an expanded wall panel business. The Tribe referred Stanford Financial to RMF, both because RMF might make a logical partner for the wall panel business (at least as a possible supplier of strawboard for the wall panels) and because RMF might benefit from

the services that Stanford Financial could provide. After initial discussions, RMF retained Stanford Financial to help it find a way out of its financial dilemma and agreed to pay the company a fee for its services. Stanford Financial had since recommended to RMF that it effectively merge with Quickstart.

The wall panels themselves consisted of a core of rigid spars and ribs sandwiched between two large sheets of OSB. The wall panels included insulation and electrical conduits and could be used for both internal and external walls, including bearing walls. Quickstart produced both standard size panels and custom panels. They could be used in single-family homes, apartment complexes, duplexes, and commercial buildings. Quickstart's owner felt that the primary customer group for wall panels would be contractors who built housing developments comprised of many identical or nearly identical homes. The panels reduced the cost of construction relative to traditionally framed homes because of the significant labor savings that were possible with these panels. Indeed, Quickstart estimated that the use of the wall panels produced a 56% savings in home construction costs compared to a traditionally framed home. Further, according to Quickstart's promotional material, almost anyone, regardless of construction skills, could build with them. To date, Quickstart wall panels had been used in the construction of about 25 homes in a Seattle area housing development and in several Habitat for Humanity homes in the Boise area.

Quickstart had indicated that the production of such panels was highly profitable. The attraction for RMF was that wall panels represented both a way to add greater value to its strawboard product and the potential for a better price. While the cost for RMF to produce these panels out of strawboard might be higher than Quickstart's costs since strawboard cost more than OSB, RMF could probably price the boards comparable to Quickstart's prices and simply operate with a reduced profit margin relative to Quickstart's currently. However, this partly depended on how much of a royalty Quickstart would expect on each panel sold.

Luke knew there were clearly some challenges to overcome if RMF was to pursue the wall panel opportunity. Some of these challenges were technical. RMF's strawboard was not approved for exterior surfaces. Therefore, while interior panels could be built entirely from strawboard, exterior panels would have to be built from either OSB or a combination of OSB and strawboard, (i.e., the strawboard could be used for the ribs and spars and/or for the interior side of the wall panel). In addition to the issue of the exterior rating, many of Quickstart's current panels used boards larger than the 4' x 8' size that RMF could produce. Another potential technical problem was the fact that strawboard did not hold screws quite as well as OSB, although it was unclear if this represented a significant problem or not.

There were also potential economic and business challenges with the wall panel option. The wall panels were very bulky and freight costs were a large unknown. Luke wondered if RMF could get the panels to customers for a reasonable cost. Luke also wondered about the acceptance of wall panels made out of strawboard. OSB was the established material, and it was stronger than strawboard, so Luke was concerned that customers might choose OSB panels over strawboard

panels despite the environmental benefits of the strawboard panels. The strawboard panels would have the advantage that a laminate could be applied to them, but Luke wasn't sure that this would be a valuable attribute for the wall panel product.

There were also significant production challenges associated with the wall panels. The process for producing wall panels was an assembly type of process, which was fairly different from RMF's current process used to produce strawboard. Luke knew there was still work to be done to improve the production of strawboard and wondered about the complexity that would come from adding a second manufacturing process. The wall panel equipment, if operating at full capacity, also would require more strawboard than RMF's current processes could produce.

OPTION 3: CLOSE THE BUSINESS AND DECLARE BANKRUPTCY

If the loan-to-grant conversion for which RMF had applied through Farm credit Services was not approved by the USDA, RMF faced the possibility of filing for Chapter 11 bankruptcy. Luke knew very little about such a process. He did know, however, that even if RMF didn't make a lot of money, both the Tribe and BGI wanted the firm to be an on-going business because of their unique motivations for starting the venture. Namely, the Tribe had struggled to diversify the reservation economy to make it less reliant on the casino and accompanying hotel/resort that the Tribe ran, and BGI wanted to find an economical solution to the bluegrass straw disposal problem resulting from the burning bans imposed in Washington in 1996.

Luke was somewhat unclear on the implications to both BGI and the Tribe of a bankruptcy declaration. For example, RMF had entered into a 20-year lease on the Idaho warehouse with the Tribe. Luke was unsure what would happen to the remaining 17 years of this lease in bankruptcy court. Likewise, Luke was unsure how bankruptcy would affect either BGI's or the Tribe's ability to raise capital for future ventures. In total, he knew he did not understand bankruptcy issues well enough to fully evaluate that as an alternative. But he knew it might need to be considered - the Tribe didn't want to keep putting \$42,000 into the business each month to keep it afloat if it didn't have the potential to turn around.

THE DECISION

Luke turned away from the window and back toward the financials. He needed to put together a sound recommendation that he could present to both RMF's board of directors and the Tribal Council regarding what should be done about RMF. Could RMF survive as a business producing strawboard, he wondered? He believed in the product, but he knew that wasn't enough. Somehow RMF would have to make money with the product or at least get to breakeven. Could RMF achieve that? Even if it could, what about servicing the current debt load? He felt that maybe some further review of the financials would help him sort out the questions. Luke wanted to avoid

dragging things out and sinking more money into the business if things ultimately couldn't be turned around. If the business was shut down, Luke wanted that decision to be based on a sound analysis of the business's long-term potential, not just on the current crisis that was requiring additional input of resources by the owners. Luke knew that whatever decision was made, he would need to develop a plan to implement that decision. Luke also knew a lot of people were depending on him to make the right decision.

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PORTFOLIO PENSION PLANNING AND ASSESSMENT PROCESS

Malek Lashgari, University of Hartford

CASE DESCRIPTION

The primary subject matter of this case is to demonstrate an application of modern portfolio theory in construction and measurement of performance of an investment portfolio. The secondary subject matter concerns issues in performance presentation standards. This is an evaluative case, intended to gain familiarity with procedures that should be followed in designing, monitoring, and evaluating an investment portfolio. The task of a portfolio manager is to search for an investment vehicle that would allow clients to reach their objectives, while managing risk. This case illustrates one way of formulating expectations regarding the likely outcome of an investment portfolio. In addition, this case presents simple guidelines for establishing a statement of investment policy for clients. The case has a difficulty level of four, appropriate for senior level.

CASE SYNOPSIS

Portfolio management, while still an art, has greatly benefited from recent developments in financial theory. The fruits of empirical evidence provide a useful tool to both active and passive money managers. For example, small investors may be able to obtain a reasonable return on investment, in a cost efficient manner, by investing in an index fund. Investors with more capital may benefit from active security selection, such as investments in value and growth stocks.

This case provides two simple designs, employing both active and passive strategies, for managing small and medium size retirement portfolios. It also utilizes a number of tools developed in modern portfolio theory to provide an estimation of portfolio return and risk. While the utmost important criterion for measuring performance is reaching desired goals, a risk adjusted measure of performance is also provided.

THE SITUATION

Lloyd Darrell Clark, Jr. has recently graduated from college with a concentration in business finance and is eager to work for his father who owns and manages a relatively small investment management firm. The firm consists of a President, an Executive Director, an investment committee, and is fully staffed for financial analysis research as well as ordinary office support.

Members of the investment committee are experienced money managers with a strong track record in performance. The money managers meet on a weekly basis to evaluate any adjustments that would seem appropriate for their clients' portfolios. Furthermore, the President ensures fair and equitable execution of trades for all clients.

As an integral part of his interview, Lloyd is invited to attend a meeting of the investment committee in order to present his views regarding the investment management process. This is quite a challenge for Lloyd since his view on managing money differs from most members of the committee. He therefore plans to produce a pilot study regarding his approach to investing and present it to the committee.

Lloyd believes that as an initial step he should prepare and present his views on portfolio construction and performance assessment techniques to the investment committee. He begins by stating that he would put in place a written statement of investment policy for his clients in which the likely range for return and risk would be established. While Lloyd feels that portfolio management is an art, one that the members of the firm have been very good at, financial theory also has a place in the process. In particular, Lloyd would like to use the history of returns during the past 50 years as a guide for actions.

While in college, Lloyd had learned about the Association for Investment Management and Research (AIMR), and the Chartered Financial Analyst (CFA) program. He has enrolled in the CFA self study program, which will take him at least three years to complete. Believing that AIMR guidelines in portfolio management and performance presentation are quite useful for his clients and the firm, Lloyd contemplates integrating these strategies into his presentation. In what follows, he presents a pilot study regarding the likely outcomes of his approach to portfolio construction.

STATEMENT OF INVESTMENT POLICY

Lloyd considers portfolio management to be an allocation of funds among competing capital assets. This process requires a clear understanding of objectives, risk tolerance level, and pertinent characteristics of the investor. If hired, Lloyd would be responsible for clients' retirement plans with a range in assets of \$500,000.00 - \$2,000,000.00.

Objectives

Return Requirement: The objectives of the clients in these representative pension plans include preservation of capital, maintaining their purchasing power, and obtaining an incremental return commensurate with real growth in U.S. economy. Lloyd believes that this can be achieved by earning a rate of return on investment that is in line with the historical average return on common stock. In that manner, the steady annual contributions to the pension portfolio, together with the

power of compounding, will be sufficient for bringing about a meaningful accumulation of wealth over the planning time horizon.

As shown in Exhibit 1, the geometric average annual rates of return during 1926-2000 for common stock and intermediate-term government bonds have been 11 percent, and 5.3 percent, respectively. Geometric mean return represents a long term, compound average return and it is suitable for use in formulating expectations regarding investment return characteristics. A balanced portfolio consisting of 80 percent in stocks and 20 percent in intermediate-term government bonds, as shown in eq. (1), is expected to provide an annual return of 9.86 percent.

$$\begin{aligned} \text{Portfolio return: } R_p &= X_s R_s + X_b R_b & (1) \\ R_p &= .80 * 11.0 + .20 * 5.30 = 9.86\% \end{aligned}$$

Where:

R denotes rate of return,
 X denotes proportion invested in a security,
 s, b and p denote common stocks, bonds and portfolio, respectively.

| EXHIBIT 1 | | | |
|--|----------------|-----------------|--------------------|
| ANNUAL TOTAL RETURNS (in percent), 1926-2000 | | | |
| Series | Geometric Mean | Arithmetic Mean | Standard Deviation |
| Large Company Stocks | 11.0 | 13.0 | 20.2 |
| Small Company Stocks | 12.4 | 17.3 | 33.4 |
| Long-Term Corporate Bonds | 5.7 | 6.0 | 8.7 |
| Long-Term Government | 5.3 | 5.7 | 9.4 |
| Intermediate-Term Government | 5.3 | 5.5 | 5.8 |
| U.S. Treasury Bills | 3.8 | 3.9 | 3.2 |
| Inflation | 3.1 | 3.2 | 4.4 |

Source: Ibbotson Associates, 2001 Yearbook.

Risk Tolerance Level

Lloyd would like to maintain the risk of the pension portfolio to be within the average market risk of a well-diversified portfolio. Therefore the portfolio should consist of large company common stocks and intermediate-term government bonds. As shown in Exhibit 1, financial market

instruments are risky when risk is measured by the annual standard deviation of returns. An investment in common stock of large companies, denoting performance of well-established corporations, has resulted in 11.0 percent average annual return with the standard deviation of 20.2 percent.

Assuming that stock returns are approximately normally distributed, in about two-thirds of the time the actual annual return is expected to be one standard deviation above or below this average return. This implies that in some years the return may be as low as -9.2 percent (i.e., 11.0% - 20.2%), and in other years as high as 31.2 percent (i.e., 11.0% + 20.2%). As shown in Exhibit 1, standard deviation of small company stocks is greater than that of their large company counterparts, revealing their greater risk. A portfolio consisting of 80 percent common stock and 20 percent bonds, as shown in eq. (2), is expected to contain standard deviation of 16.31 percent. Note that in order to measure the risk of this portfolio a correlation coefficient of 0.09, taken from Ibbotson (2001), is assumed. Computations for risk of a portfolio, whose return is generated by eq. (1), are shown below.

$$\text{Portfolio risk: } S_p^2 = X_s^2 \cdot S_s^2 + X_b^2 \cdot S_b^2 + 2X_s \cdot X_b \cdot S_s \cdot S_b \cdot \text{Corr}(s, b). \quad (2)$$

$$S_p^2 = (.80)^2 (.202)^2 + (.20)^2 (.058)^2 + 2(.80) (.20) (.202) (.058) (.09)$$

$$S_p^2 = 0.026586541, \text{ and } S_p = 0.16305 = 16.31\%.$$

Where:

- R denotes rate of return,
- S denotes standard deviation,
- X denotes proportion invested in a security,
- s, b and p denote common stocks, bonds and portfolio, respectively, and
- Corr denotes correlation coefficient between two securities.

Time Horizon

The accumulation phase for these pension portfolios is about 20 years. This lends itself to an aggressive investment weighting in common stocks.

Liquidity Needs

No withdrawals are anticipated from the portfolio during the forthcoming 20 years of the accumulation period. Meanwhile, the continuous contributions to the portfolio would allow investments to be made in common stocks.

Asset Mix

During the initial 20 years of the accumulation phase, Lloyd states that the strategic asset allocation calls for substantial investments in common equity. He would also consider tactical asset mix, based on unfavorable stock market conditions, to lower the stock weight to about 50 percent of total assets in the pension portfolio. In such cases, bonds of high quality with an average maturity of 5 to 7 years may be appropriate. During the consumption phase of the plan, when clients are retired, the proportion invested in common stock could be gradually reduced to lower than 50 percent.

Diversification

Lloyd plans to include all major sectors of the economy such as technology, health care, financial services, energy, consumer products, and diversified manufacturing. Furthermore, he would maintain a proper balance between value and growth stocks in each portfolio.

THE PORTFOLIO CONSTRUCTION PROCESS

If hired, Lloyd would be responsible for managing pension plans for twenty clients. Some of these clients have accumulated roughly two million dollars, while the others have less than half a million dollars in their pension portfolios. Lloyd's predecessor, an experienced stock picker who is now retiring, has performed quite well for these clients. Her average annual portfolio turnover rate of 200 percent however, reveals the very short-term nature of her style. Effectively, it appears that she has been selling every stock after six months. Being a young, inexperienced college graduate, Lloyd believes that he should follow a different path. He therefore presents the following two plans for his clients.

For investors with less than \$500,000.00 in investment value, Lloyd would like to invest approximately 80 percent in an index-fund, such as Vanguard Index 500. The remaining portion would be invested in U.S. government securities with a maturity of less than 5 years. For those with more than \$500,000.00 in portfolio value, Lloyd recommends that 25 percent should be invested in an index fund, such as Vanguard Index 500, 25 percent to be allocated to a growth index fund, such as Vanguard growth fund, 25 percent to be directed to a money manager with an active value style, such as Dreman High Return Portfolio, and the remaining 25 percent to be invested in U.S. Treasury bonds with an average maturity of 5 years.

In order to support his strategy, Lloyd prepares Exhibits 2 through 6 and outlines the following to members of the investment committee. First, this is a low cost and efficient way for managing relatively small size portfolios. Second, due to the random movement of changes in stock prices, empirical data are not in support of active management (Malkiel, 1999). As such, there is no

guarantee to outperform the market. Third, for larger portfolios, the combination of value and growth should tend to add value to the portfolio. Finally, U.S. Treasury bonds would help preserve pension assets. Lloyd shows the results of these two portfolio-building approaches in Exhibits 3 and 6 for 1981-2000 as a pilot study.

| EXHIBIT 2 | | |
|---|---------------------------|--------------------------------|
| Annual Total Returns (In Percent) for Common Stocks And Intermediate Term Government Bonds | | |
| Year | Stock Return (R_{si}) | Gov. Bond. Return (R_{bi}) |
| 1981 | -4.91 | 9.45 |
| 1982 | 21.41 | 29.10 |
| 1983 | 22.51 | 7.41 |
| 1984 | 6.27 | 14.02 |
| 1985 | 32.16 | 20.33 |
| 1986 | 18.47 | 15.14 |
| 1987 | 5.23 | 2.90 |
| 1988 | 16.81 | 6.10 |
| 1989 | 31.49 | 13.29 |
| 1990 | -3.17 | 9.73 |
| 1991 | 30.55 | 15.46 |
| 1992 | 7.67 | 7.19 |
| 1993 | 9.99 | 11.24 |
| 1994 | 1.31 | -5.14 |
| 1995 | 37.43 | 16.80 |
| 1996 | 23.07 | 2.10 |
| 1997 | 33.36 | 8.38 |
| 1998 | 28.58 | 10.21 |
| 1999 | 21.04 | -1.77 |
| 2000 | -9.11 | 12.59 |
| Average Return | 16.508 | 10.227 |
| Standard Deviation | 13.688 | 7.489 |
| Correlation Coef. | 0.304102 | |
| Source: Ibbotson Associates, 2001 Yearbook. | | |

As shown in Exhibit 3, average return and standard deviation of the portfolio consisting of 80 percent invested in stock index funds, and 20 percent in intermediate-term government bonds-are 15.25 percent and 11.495 percent, respectively. These results are associated with smaller size portfolios. As shown in Exhibit 6, average return and standard deviation of the portfolio consisting of equal investments in four assets-index fund, growth stocks, value stocks, and intermediate government bonds-are 15.0 percent and 10.96 percent, respectively. These results relate to the medium size portfolios.

| EXHIBIT 3 | | | |
|--|---|--|--------------------------------|
| Pilot Portfolio (80 Percent Stock, 20 Percent Intermediate Government Bonds) | | | |
| 1981-2000 Year | Stock Return (R_{st}) in percent | Gov Bond Return (R_{bt}) in percent | Portfolio Return In percent |
| 1981 | -3.93 | 1.89 | -2.04 |
| 1982 | 17.13 | 5.82 | 22.95 |
| 1983 | 18.01 | 1.48 | 19.49 |
| 1984 | 5.02 | 2.80 | 7.82 |
| 1985 | 25.73 | 4.07 | 29.79 |
| 1986 | 14.78 | 3.03 | 17.80 |
| 1987 | 4.18 | 0.58 | 4.76 |
| 1988 | 13.45 | 1.22 | 14.67 |
| 1989 | 25.19 | 2.66 | 27.85 |
| 1990 | -2.54 | 1.95 | -0.59 |
| 1991 | 24.44 | 3.09 | 27.53 |
| 1992 | 6.14 | 1.44 | 7.57 |
| 1993 | 7.99 | 2.25 | 10.24 |
| 1994 | 1.05 | -1.03 | 0.02 |
| 1995 | 29.94 | 3.36 | 33.30 |
| 1996 | 18.46 | 0.42 | 18.88 |
| 1997 | 26.69 | 1.68 | 28.36 |
| 1998 | 22.86 | 2.04 | 24.91 |
| 1999 | 16.83 | -0.35 | 16.48 |
| 2000 | -7.29 | 2.52 | -4.77 |
| Average Return | 15.25 | | |
| Standard Deviation | 11.495 | | |

EXHIBIT 3

Pilot Portfolio (80 Percent Stock, 20 Percent Intermediate Government Bonds)

Source: Exhibit 2. The stock and bond return columns in Exhibit 2 are multiplied by 0.80, and 0.20, respectively, and added up to generate the portfolio returns in Exhibit 3.

The reward to variability ratio of Sharpe is; $\frac{\bar{R}_p - \bar{R}_f}{S_p} = (15.25 - 6.66) / 11.495 = 0.75$.

Where an average risk-free return of 6.66 percent, prevailing during 1981-2000, is used.

\bar{R}_p denotes the actual return on the portfolio,
 \bar{R}_f denotes the risk-free rate, and
 S_p denotes the standard deviation of returns.

A higher value for the Sharpe ratio represents a better performance.

$$R_p = .80 * R_{si} + .20 * R_{bi}$$

$$S_p^2 = (.80)^2 * S_{si}^2 + (.20)^2 * S_{bi}^2 + 2 * .80 * .20 * S_{si} * S_{bi} * \text{Corr}(SI, BI)$$

Where:

R_p and S_p denote return and risk on the portfolio, respectively
 R_{si} and S_{si} denote return and risk on stock index fund, respectively
 R_{bi} and S_{bi} denote return and risk on bond index fund, respectively
.25 denotes recommended allocation of 25 percent to each category.

EXHIBIT 4

ANNUAL TOTAL RETURNS BY DECADES (in percent), 1930-2000

| Time Interval | 1930s | 1940s | 1950s | 1960s | 1970s | 1980s | 1990s |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Large Growth Stocks | 1.9% | 7.3% | 17.9% | 8.0% | 3.6% | 15.5% | 19.9% |
| Large Value Stocks | -5.8 | 17.1 | 22 | 11.1 | 12 | 20.7 | 14.4 |
| Small Growth Stocks | 7.4 | 11.3 | 18 | 9.8 | 5.3 | 9.9 | 14.3 |
| Small Value Stocks | -0.5 | 21.2 | 20.3 | 15.2 | 15.5 | 20.9 | 14.8 |
| All Growth Stocks | 1.9 | 7.3 | 17.9 | 8 | 3.8 | 14.7 | 19.4 |
| All Value Stocks | -4.6 | 17.9 | 21.8 | 12.3 | 13.9 | 20.8 | 14.4 |

Source: Ibbotson Associates, *2001 Yearbook*.

| EXHIBIT 5 | | | | |
|--|---------------------|-------------------|------------------|-----------|
| Annual Total Returns by Type (In Percent), 1981-2000 | | | | |
| Year | Large Company Stock | All Growth Stocks | All Value Stocks | Gov. Bond |
| 1981 | -4.91 | -8.12 | 14.95 | 9.45 |
| 1982 | 21.41 | 19.96 | 29.14 | 29.10 |
| 1983 | 22.51 | 16.09 | 29.98 | 7.41 |
| 1984 | 6.27 | -2.98 | 16.51 | 14.02 |
| 1985 | 32.16 | 32.76 | 32.90 | 20.33 |
| 1986 | 18.47 | 12.24 | 20.92 | 15.14 |
| 1987 | 5.23 | 4.99 | -2.76 | 2.90 |
| 1988 | 16.81 | 12.04 | 25.39 | 6.10 |
| 1989 | 31.49 | 34.79 | 29.42 | 13.29 |
| 1990 | -3.17 | -1.09 | -15.03 | 9.73 |
| 1991 | 30.55 | 43.91 | 28.84 | 15.46 |
| 1992 | 7.67 | 6.77 | 24.25 | 7.19 |
| 1993 | 9.99 | 3.37 | 21.24 | 11.24 |
| 1994 | 1.31 | 1.37 | -4.66 | -5.14 |
| 1995 | 37.43 | 37.09 | 35.83 | 16.80 |
| 1996 | 23.07 | 20.13 | 14.87 | 2.10 |
| 1997 | 33.36 | 30.31 | 32.91 | 8.38 |
| 1998 | 28.58 | 33.11 | 12.07 | 10.21 |
| 1999 | 21.04 | 29.81 | 5.40 | -1.77 |
| 2000 | -9.11 | -13.40 | -0.16 | 12.59 |
| Mean | 16.51 | 15.66 | 17.60 | 10.23 |
| Standard Deviation | 13.69 | 16.26 | 14.08 | 7.49 |
| Sharpe Ratio | 0.72 | 0.55 | 0.78 | 0.48 |

Source: Ibbotson Associates, *2001 Yearbook*

| EXHIBIT 6 | | | | | |
|---|-----------------------------|-------------------------------|------------------------------|----------------------------|-------------------------------|
| Pilot Portfolio, a 25 Percent Equally Weighted Portfolio Returns (In Percent) | | | | | |
| Year | Stock Index (R_{si}) | Growth Stocks (R_{gs}) | Value Stocks (R_{vs}) | Gov. Bonds (R_{bi}) | Portfolio Return (R_p) |
| 1981 | -1.23 | -2.03 | 3.74 | 2.36 | 2.84 |
| 1982 | 5.35 | 4.99 | 7.29 | 7.28 | 24.90 |
| 1983 | 5.63 | 4.02 | 7.50 | 1.85 | 19.00 |
| 1984 | 1.57 | -0.75 | 4.13 | 3.51 | 8.46 |
| 1985 | 8.04 | 8.19 | 8.23 | 5.08 | 29.54 |
| 1986 | 4.62 | 3.06 | 5.23 | 3.79 | 16.69 |
| 1987 | | 1.25 | -0.69 | 0.73 | 2.59 |
| 1988 | 4.20 | 3.01 | 6.35 | 1.53 | 15.09 |
| 1989 | 7.87 | 8.70 | 7.36 | 3.32 | 27.25 |
| 1990 | -0.79 | -0.27 | -3.76 | 2.43 | -2.39 |
| 1991 | 7.64 | 10.98 | 7.21 | 3.87 | 29.69 |
| 1992 | 1.92 | 1.69 | 6.06 | 1.80 | 11.47 |
| 1993 | 2.50 | 0.84 | 5.31 | 2.81 | 11.46 |
| 1994 | 0.33 | 0.34 | -1.17 | -1.29 | -1.78 |
| 1995 | 9.36 | 9.27 | 8.96 | 4.20 | 31.79 |
| 1996 | 5.77 | 5.03 | 3.72 | 0.53 | 15.04 |
| 1997 | 8.34 | 7.58 | 8.23 | 2.10 | 26.24 |
| 1998 | 7.15 | 8.28 | 3.02 | 2.55 | 20.99 |
| 1999 | 5.26 | 7.45 | 1.35 | -0.44 | 13.62 |
| 2000 | -2.28 | -3.35 | -0.04 | 3.15 | -2.52 |
| Mean | 15.00 | | | | |
| Standard Deviation | 10.96 | | | | |

EXHIBIT 6**Pilot Portfolio, a 25 Percent Equally Weighted Portfolio Returns (In Percent)**

Source: Exhibit 5. Each column in Exhibit 5 is multiplied by 0.25 and the results are recorded in Exhibit 6. The portfolio return for each year is computed by combining the values in each row of the preceding four columns of Exhibit 6.

The reward to variability ratio of Sharpe is; $\frac{\bar{R}_p - \bar{R}_f}{S_p} = (15.0 - 6.66) / 10.96 = 0.76$,

where an average risk-free return of 6.66 percent, prevailing during 1981-2000, is used.

\bar{R}_p denotes the actual return on the portfolio,
 \bar{R}_f denotes the risk-free rate, and
 S_p denotes the standard deviation of returns.

A higher value for the Sharpe ratio represents a better performance.

$$\begin{aligned} R_p &= .25 * R_{si} + .25 * R_{gs} + .25 * R_{vs} + .25 * R_{bi} \\ S_p^2 &= (.25)^2 * S_{si}^2 + (.25)^2 * S_{gs}^2 + (.25)^2 * S_{vs}^2 + (.25)^2 * S_{bi}^2 + 2 * .25 * .25 * S_{si} * S_{gs} * \text{Corr}(SI, GS) \\ &\quad + 2 * .25 * .25 * S_{si} * S_{vs} * \text{Corr}(SI, VS) + 2 * .25 * .25 * S_{si} * S_{bi} * \text{Corr}(SI, BI) \\ &\quad + 2 * .25 * .25 * S_{gs} * S_{vs} * \text{Corr}(GS, VS) \\ &\quad + 2 * .25 * .25 * S_{gs} * S_{bi} * \text{Corr}(GS, BI) + 2 * .25 * .25 * S_{vs} * S_{bi} * \text{Corr}(VS, BI) \end{aligned}$$

Where:

R_p and S_p denote return and risk on the portfolio, respectively
 R_{si} and S_{si} denote return and risk on stock index fund, respectively
 R_{gs} and S_{gs} denote return and risk on growth stocks, respectively
 R_{vs} and S_{vs} denote return and risk on value stocks, respectively
 R_{bi} and S_{bi} denote return and risk on bond index fund, respectively
.25 denotes recommended allocation of 25 percent to each category.

PERFORMANCE MEASUREMENT AND PRESENTATION CRITERIA

Lloyd presents the reward to variability ratio of Sharpe, which calculates a measure of risk-adjusted return, from information provided in Exhibits 3 and 6, assuming an average risk-free return of 6.66 percent prevailing during 1981-2000. The values of the Sharpe ratio are 0.75 for those with fewer assets under management in Exhibit 3, and 0.76 in Exhibit 6 for clients with larger sized portfolios. For performance comparison, note that in Exhibit 5 the Sharpe ratios are 0.72, 0.55, 0.78, and 0.48 for unmanaged portfolios consisting of large company stock, growth stocks, value stocks, and intermediate-term government bonds, respectively. Since a higher value for the Sharpe ratio represents better performance, Lloyd provides supports for his approach. This is because the Sharpe ratios for the two pilot portfolios are the same as or better than those of unmanaged investments.

Lloyd has also compiled Exhibits 7 through 12 as examples of the manner in which he would like to present his results.

In Exhibits 7 through 12, the Sharpe ratio provides a measure of risk-adjusted return; higher values would represent better performance. Beta denotes a measure of risk relative to the market. A beta of one represents portfolio risk similar to the market. Higher values for beta are an indication of greater volatility in portfolio returns. Alpha is a measure of performance in the context of the capital asset pricing model. Since alpha represents excess return above the required return, a positive value represents good performance. Sales charges are a one-time fee. However, management fees are charged annually for designing and monitoring the investment portfolios. 12b-1 fees are also annual charges imposed by the fund administration for mailing, advertising, and compensation to independent selling groups.

| EXHIBIT 7 | | | | | | | | |
|---|------|------|------|------|------|------|------|--------|
| Performance Results for Vanguard Index 500 (Data Through 09-30-2001) | | | | | | | | |
| Style: Large Size Blend of Value and Growth Stocks | | | | | | | | |
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Sep-01 |
| Total Return (%) | 1.2 | 37.4 | 22.9 | 33.2 | 28.6 | 21.1 | -9.1 | -20.5 |
| +/- S+P500 (%) | -0.1 | -0.1 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | -0.10 |
| Data are taken from Morningstar's Mutual Funds Services | | | | | | | | |

| EXHIBIT 8 | | | | |
|---|---------------|--------------|--------------|---------------|
| Performance Results for Vanguard Index 500 (Data through 09-30-2001) | | | | |
| | Past One Year | Past 3 Years | Past 5 Years | Past 10 Years |
| Total Return (%) | -19.75 | 2.6 | 10.72 | 12.61 |
| +/- S+P500 (%) | -0.09 | 0 | -0.04 | -0.08 |
| Data are taken from Morningstar's Mutual Funds Services | | | | |

| EXHIBIT 9 | | | | | |
|--|-------------------|--------------|---------------------|----------|----------------|
| Performance Results for Vanguard Index 500 Statistical Results: past 3 Years Through 09-30-2001 | | | | | |
| Statistics | Mean (%) | Std.Dev. (%) | Sharpe Ratio | Beta (%) | Alpha (%) |
| Value | 2.05 | 18.12 | -0.20 | 1.0 | 0.02 |
| Statistics | Sales Charges (%) | | Management Fees (%) | | 12b-1 Fees (%) |
| Value | None | | 0.16 | | None |
| Data are taken from Morningstar's Mutual Funds Services | | | | | |

| EXHIBIT 10 | | | | | | | | |
|--|------|------|------|------|-------|-------|------|--------|
| Performance Results for Dreman High Return Equity (Data Through 09-30-2001) Style: Large Size Value Stocks | | | | | | | | |
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Sep-01 |
| Total Return (%) | -1.2 | 46.9 | 28.8 | 31.9 | 12 | -13.2 | 41.3 | -4.5 |
| +/- S+P500 (%) | -2.5 | 9.3 | 5.8 | -1.4 | -16.6 | -34.3 | 50.4 | 15.9 |
| Data are taken from Morningstar's Mutual Funds Services | | | | | | | | |

| EXHIBIT 11 | | | | |
|--|---------------|--------------|--------------|---------------|
| Performance Results for Dreman High Return Equity (Data Through 09-30-2001) | | | | |
| | Past One Year | Past 3 Years | Past 5 Years | Past 10 Years |
| Total Return (%) | 13.15 | 10.16 | 13.76 | 16.11 |
| +/- S+P500 (%) | 32.81 | 7.56 | 3.0 | 3.42 |
| Data are taken from Morningstar's Mutual Funds Services | | | | |

| EXHIBIT 12 | | | | | |
|---|-------------------|--------------|-----------------|----------|----------------|
| Performance Results for Dreman High Return Equity Statistical Results: past 3 Years Through 09-30-2001 | | | | | |
| Statistics | Mean (%) | Std.Dev. (%) | Sharpe Ratio | Beta (%) | Alpha (%) |
| Value | 10.18 | 20.07 | 0.29 | 0.5 | 7.23 |
| Statistics | Sales Charges (%) | | Management Fees | | 12b-1 Fees (%) |
| Value | 5.75 | | 0.75 | | None |
| Data are taken from Morningstar's Mutual Funds Services | | | | | |

DISCUSSIONS

- a) Juniper, a member of the investment committee, while in favor of Lloyd's recommendations, suggests that the weight associated with the growth fund for the medium size retirement portfolios should increase to 35 percent (from 25 percent) and bonds to 15 percent (from 25 percent). Provide a critique of her comments by using the chart in Exhibit 13.

| EXHIBIT 13 | | | | | |
|--|-----------------------------|-------------------------------|------------------------------|----------------------------|------------------|
| Pilot Portfolio, a 25 Percent Weight for Value and Stock Index Funds, 35 Percent for Growth Stocks and 15 Percent for Bonds | | | | | |
| Year | Stock Index (R_{si}) | Growth Stocks (R_{gs}) | Value Stocks (R_{vs}) | Gov. Bonds (R_{bi}) | Portfolio Return |
| 1981 | -1.23 | -2.84 | 3.74 | 1.42 | 1.09 |
| 1982 | 5.35 | 6.99 | 7.29 | 4.37 | 23.99 |
| 1983 | 5.63 | 5.63 | 7.50 | 1.11 | 19.87 |
| 1984 | 1.57 | -1.04 | 4.13 | 2.10 | 6.76 |
| 1985 | 8.04 | 11.47 | 8.23 | 3.05 | 30.78 |
| 1986 | 4.62 | 4.28 | 5.23 | 2.27 | 16.40 |
| 1987 | 1.31 | 1.75 | -0.69 | 0.44 | 2.80 |
| 1988 | 4.20 | 4.21 | 6.35 | 0.92 | 15.68 |
| 1989 | 7.87 | 12.18 | 7.36 | 1.99 | 29.40 |
| 1990 | -0.79 | -0.38 | -3.76 | 1.46 | -3.47 |
| 1991 | 7.64 | 15.37 | 7.21 | 2.32 | 32.54 |
| 1992 | 1.92 | 2.37 | 6.06 | 1.08 | 11.43 |
| 1993 | 2.50 | 1.18 | 5.31 | 1.69 | 10.67 |
| 1994 | 0.33 | 0.48 | -1.17 | -0.77 | -1.13 |
| 1995 | 9.36 | 12.98 | 8.96 | 2.52 | 33.82 |
| 1996 | 5.77 | 7.05 | 3.72 | 0.32 | 16.85 |
| 1997 | 8.34 | 10.61 | 8.23 | 1.26 | 28.43 |
| 1998 | 7.15 | 11.59 | 3.02 | 1.53 | 23.28 |
| 1999 | 5.26 | 10.43 | 1.35 | -0.27 | 16.78 |
| 2000 | -2.28 | -4.69 | -0.04 | 1.89 | -5.12 |
| Mean | 15.541 | | | | |
| Standard Deviation | 12.088 | | | | |

EXHIBIT 13

Pilot Portfolio, a 25 Percent Weight for Value and Stock Index Funds,
35 Percent for Growth Stocks and 15 Percent for Bonds

| Year | Stock Index (R_{si}) | Growth Stocks (R_{gs}) | Value Stocks (R_{vs}) | Gov. Bonds (R_{bi}) | Portfolio Return |
|------|-----------------------------|-------------------------------|------------------------------|----------------------------|------------------|
|------|-----------------------------|-------------------------------|------------------------------|----------------------------|------------------|

Source: Exhibit 5. Each column in Exhibit 5 is multiplied by 0.25, 0.35, 0.25, and 0.15 respectively, and recorded in Exhibit 13. The cumulative values of the first four columns per year would then generate portfolio return column in Exhibit 13.

The reward to variability ratio of Sharpe is; $\frac{\bar{R}_p - \bar{R}_f}{S_p}$, $(15.541 - 6.66) / 12.088 = 0.74$.

An average risk-free return of 6.66 percent, prevailing during 1981-2000, is used.

$$R_p = .25 * R_{si} + .35 * R_{gs} + .25 * R_{vs} + .15 * R_{bi}$$

$$S_p^2 = (.25)^2 * S_{si}^2 + (.35)^2 * S_{gs}^2 + (.25)^2 * S_{vs}^2 + (.15)^2 * S_{bi}^2 + 2 * .25 * .35 * S_{si} * S_{gs} * \text{Corr}(SI, GS) \\ + 2 * .25 * .25 * S_{si} * S_{vs} * \text{Corr}(SI, VS) + 2 * .25 * .15 * S_{si} * S_{bi} * \text{Corr}(SI, BI) \\ + 2 * .35 * .25 * S_{gs} * S_{vs} * \text{Corr}(GS, VS) \\ + 2 * .35 * .15 * S_{gs} * S_{bi} * \text{Corr}(GS, BI) + 2 * .25 * .15 * S_{vs} * S_{bi} * \text{Corr}(VS, BI)$$

Where:

R_p and S_p denote return and risk on the portfolio, respectively

R_{si} and S_{si} denote return and risk on stock index fund, respectively

R_{vs} and S_{vs} denote return and risk on value stocks, respectively.

R_{bi} and S_{bi} denote return and risk on bond index fund, respectively

- b) Lloyd's father asks whether exchange traded funds should be employed instead of index mutual funds (See Exhibit 14). Provide comments on the merits of this suggestion.

EXHIBIT 14

Exchange Traded Funds

An exchange traded fund (ETF) is a relatively new type of an investment company that was brought to the financial markets during the 1990s. While a share of mutual fund is priced and traded only once at the closing of the market, an exchange traded fund can be traded at any time during the market hours.

An example of exchange traded fund is SPIDERS ((SPY); S&P 500 Depository Receipts), and is priced at 1/10th of S&P 500. If S&P 500 = 1040, then SPY = 104. Another popular exchange traded fund is DIAMONDS (DIA). If the Dow Jones Industrial Average (DJIA) stands at 9750, then DIA = 97.50, or at one percent of the index value.

A mutual fund is an investment company that pools together an investment portfolio for the benefit of its shareholders. A mutual fund would stand ready to redeem its shares at all times to provide you with cash as needed. A mutual fund sells shares of their fund to interested buyers continuously, and will buy back those shares at their closing prices.

- c) Iris, a member of the investment committee would like Lloyd to replace the Vanguard Index 500 with the Vanguard Extended Market Index. Among her reasons are that more attention should be paid to the entire market portfolio including small capitalization stocks. Provide a response to this comment. See Exhibit 15 to help develop your answer.

| |
|--|
| EXHIBIT 15 Extended Market Indexes |
|--|

| |
|---|
| While the Standard and Poor's Composite index (S&P 500), represents performance of 500 companies, and Dow Jones index includes 30 companies, the extended market indexes show performance of more than 5000 corporations. |
|---|

- d) Todd, an active money manager, dislikes the idea of indexing, since he feels that during good market conditions it is tantamount to "buy high, sell low." Comment on the validity of his argument.
- e) Alan, a senior portfolio manager and a long-time member of the firm, states that clients have been attracted to the firm because of their special talents in stock selection. Thereby, such clients may dislike Lloyd's new approach. Provide a response to these issues.

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ST. LOUIS CHEMICAL: THE ACQUISITION

David A. Kunz, Southeast Missouri State University

CASE DESCRIPTION

The primary subject matter of this case concerns the business valuation process. Secondary issues examined include the challenges of valuing small, privately held businesses, the services provided by business brokers and issues regarding structuring a business sale. The case requires students to have an introductory knowledge of accounting, finance and general business issues thus the case has a difficulty level of three (junior level) or higher. The case is designed to be taught in one class session of approximately 1.25 hours and is expected to require 2-3 hours of preparation time from the students.

CASE SYNOPSIS

St. Louis Chemical is a regional chemical distributor, headquartered in St. Louis. Don Williams, the President and primary owner, began St. Louis Chemical ten years ago after a successful career in chemical sales and marketing. The company reported small losses during its first two years of operation but has since reported eight consecutive years of increasing sales and profits. The growth has required the acquisition of additional land, equipment, expansion of storage capacity and more than tripling the size of the work force. St. Louis Chemical has become the leading distributor in the St. Louis area.

Williams plans to open a new facility in Memphis, Tennessee to expand its geographic market. The company was in the process of acquiring the necessary land and equipment when Williams received a telephone call from Frank James, St. Louis Chemical's sales manager. James indicated that First Chemical, a Memphis based chemical distributor was on the market. James wanted to know if Williams was interested in investigating the possibility of acquiring First Chemical. Williams was interested but was uncertain of how to determine a fair value for First Chemical.

CHEMICAL DISTRIBUTION

A chemical distributor is a wholesaler. Operations may vary but a typical distributor purchases chemicals in large quantities (bulk - barge, rail or truckloads) from a number of manufacturers. They store bulk chemicals in "tank farms", a number of tanks surrounded by dikes

to prevent pollution in the event of a tank failure. Tanks can receive and ship materials from all modes of transportation. Packaged chemicals are stored in a warehouse. Other distributor activities include blending, repackaging, and shipping in smaller quantities (less than truckload, tote tanks, 55-gallon drums, and other smaller package sizes) to meet the needs of a variety of industrial users.

In addition to the tank farm and warehouse, a distributor needs access to specialized delivery equipment (specialized truck transports, and tank rail cars) to meet the handling requirements of different chemicals. A distributor adds value by supplying its customers with the chemicals they need, in the quantities they desire, when they need them. This requires maintaining a sizable inventory and operating efficiently. Distributors usually operate on very thin profit margins. RMA Annual Statement Studies indicates "profit before taxes as a percentage of sales" for Wholesalers - Chemicals and Allied Products, (SIC number 5169) ranges from 2.1 to 4.5% with an average of 3.2%. In addition to operating efficiently, a successful distributor will possess 1) a solid customer base and 2) supplier contacts and contracts which will ensure a complete product line is available at competitive prices.

THE SITUATION

St. Louis Chemical is a regional chemical distributor, headquartered in St. Louis. Don Williams, the President and primary owner, began St. Louis Chemical ten years ago after a successful career in chemical sales and marketing. The company reported small losses during its first two years of operation but has since reported eight consecutive years of increasing sales and profits. The growth has required the acquisition of additional land, equipment, expansion of storage capacity and more than tripling the size of the work force. St. Louis Chemical has become the leading distributor in the St. Louis area.

Since beginning his career in the chemical distribution industry Williams has developed solid customer contacts in the St. Louis metropolitan area, as well as with major customers in Missouri, Illinois, Iowa, Indiana and Tennessee. He has also developed valuable contacts with key chemical manufacturers. To better serve customer with plants outside the St. Louis area and make St. Louis Chemical more attractive to manufactures by offering a larger geographic service region, Williams decided to expand operations to include the Memphis area.

Frank James, St. Louis Chemical's sales manager, was assigned the task of launching the new Memphis operation. A Memphis branch would be a stand-alone operation and not overlap of operations or customers with the St. Louis plant. A new facility in Memphis would be required. The company was in the process of acquiring land and equipment when James learned that First Chemical, a Memphis based chemical distributor was on the market. First Chemical is a privately held company with a good reputation and an established customer base. The acquisition of First Chemical would provide St. Louis Chemical with an immediate market presence. James indicated

the asking price for First Chemical was \$16,000,000. Williams was interested in exploring this option but was uncertain of how to determine if \$16,000,000 is a fair value for First Chemical.

James approached the business broker representing First Chemical and expressed St. Louis Chemical's interest in investigating the acquisition. After James signed a confidentiality agreement, the business broker provided limited First Chemical financial information and recent appraisals of fixed assets. The broker indicated more information would be provided if St. Louis Chemical decided to further pursue the acquisition. Audited First Chemical financial information is provided in Table One. Fixed assets were appraised at \$8,750,000.

Williams was aware of price-to-earnings and price-to-book-value ratios as possible business value indicators but was not sure how each was calculated or if these were appropriate methods for valuing First Chemical. Last year St. Louis Chemical had its land and equipment appraised for insurance purposes and he thought this might be another valuation approach.

Williams asked St. Louis Chemical's recently hired chief financial officer (CFO), Ann Bush, for her thoughts on how to proceed. Before becoming CFO, Bush was a senior financial consultant for an international accounting and consulting firm. Bush indicated that in theory a business's value is equal to the value of its debt and equity and while it is easy to describe valuation theory, the process of valuing a business is part art and part science. She suggested that Brown and Brown, an investment banking firm, may be of service in valuing First Chemical because of their experience in this area as well as their data base of sale transactions. Williams agreed and asked her to arrange a meeting with a representative of Brown and Brown.

THE MEETING

Bush arranged a meeting with Samuel Hoover, a Brown and Brown principal, to determine what assistance, if any, Brown and Brown could provide in investigating the First Chemical offer and if Williams was interested in acquiring the company, conducting negotiations. Bush had worked with Brown and Brown on previous business sales and thought highly of the firm. Hoover indicated that Brown and Brown had aided other chemical distributors in private placement of equity financing and was familiar with the chemical distribution industry. He also stated that Brown and Brown had a data base that included information on a number of chemical distributor sale transactions that would prove useful in valuing First Chemical. He described a number of business valuation methods.

1) **Asset Based Methods:**

- a) *Accounting Book Value:* Accounting value taken from the company's financial statements. This method assumes that assets values are equal to market value and the value of the firm is equal to the value of its assets. Bush suggested using the

firm's book value as a base value. Hoover didn't think this method would yield a true value but agreed with Bush that it could possibly be used as base value and a starting point.

- b) *Adjusted Tangible Book Value Method:* This method also uses accounting values but recognizes that accounting values are based on historical information that does not always reflect market values. Fixed assets values are adjusted to reflect current market values. It assumes the firm continues to operate and assets reflect "in use" values. Bush commented that determining a value using this method would be easy to calculate since First Chemical had relatively current appraisals for its fixed assets (\$8,750,000). This method also assumes the value of the firm is equal to the value of its assets.
- c) *Liquidation Value:* This method is similar to adjusted book value, but this approach assumes the firm ceases operations and assets are sold. Hoover indicated a "rule of thumb" in liquidations was to assume 70% of accounts receivables could be collected, inventory could be sold for 60% of book value and fixed assets would yield 50% of book value. Bush stated that this value would also be easy to determine using the suggested "rule of thumb" numbers as a guide for valuing assets but questioned if this is a valid approach since the purpose of the acquisition would be to continue operations, not liquidate assets.

2) **Market Comparison Methods:**

- a) *Price/Earnings Ratio (P/E):* This approach is based on the assumptions that the value of a privately held company can be determined as a multiple of reported earnings. This approach assumes historic earnings are indicative of future earnings. If this is not true then earnings need to be adjusted to reflect future performance. It may be necessary to eliminate unusual and nonrecurring items from reported earnings. This method also requires an earnings multiple and this is usually obtained from reviewing "comparable" transactions. A comparable transaction is the ratio between earnings and stock price for similar publicly traded companies (same industry and size) or the actual sale of similar companies whose market values are known. This approach values the firm's equity and requires the current value of outstanding debt to be added to the value of equity to arrive at the firm's value. Hoover stated research on previous sale transactions indicated companies were selling between 16 and 18 times earnings. Williams suggested using a multiple of 16 in the calculation and an average of the last four years earnings.
- b) *Multiple of Book Value:* Another method based on comparable transaction is a multiple of a firm's book value. Hoover stated that two other chemical distributors

had sold in the past year at multiples of 1.4 and 1.7 times book value. Hoover suggested using a multiple of 1.5 to be conservative.

- c) *Multiple of Revenue:* A similar method for small businesses is a sales price based on a percentage of revenue. Based on previous transactions, Hoover indicated that chemical distribution operations tend to sell 50% to 55% of gross sales revenue. Again to be conservative, he recommended valuing First Chemical at 50% of 2002 revenue. Williams agreed.

3) **Free Cash Flow (also called Discounted Cash Flow):**

Hoover favors this approach based on expected future cash flows and pointed out that this technique requires forecasting future cash flows. Hoover stated that most valuations project performance for five years. Williams and Bush thought forecasting for five years would be appropriate. In preparing the forecasts, Williams suggested they project revenues to grow at 4.0% per year and forecast cost of goods sold and selling and administrative expense at 84% and 8% of sales respectively. This was slightly lower than the actual percentage for 2001 and 2000, but Williams thought planned plant investments should improve operating efficiency. St. Louis Chemical purchasing power should reduce cost of goods sold. Williams said annual capital expenditures would be approximately \$1,000,000 for the first two years and \$800,000 per year thereafter. Since annual depreciation expense was \$753,000 last year, and equipment updating is planned, Bush suggested using \$800,000 for annual depreciation expense in year one (2003) and reduce the amount by \$25,000 each successive year. Bush also suggested using a projected income tax rate of 30%. Bush asked how she should handle working capital changes. Williams commented that because the current relationship between revenues, current assets, and current liabilities was high, they should assume current assets and current liabilities be projected at 24% and 14% of sales respectively. Bush recognized this was an oversimplification but agreed. Hoover said they would need to establish a value for the business at year five. This value is called the horizon value. Bush suggested using the constant growth model, $P_5 = (D_5 * (1+g)) / (k-g)$, to estimate horizon value. Bush said she would use the projected free cash flow for year five as D_5 . Williams considered First Chemical and St. Louis Chemical to have the same risk level so he told Bush use St. Louis Chemical's current cost of capital (k) of 11% as the discount rate or the required rate of return. Williams suggested assuming a 6% growth rate (g) for Net Operating Profit after Taxes (NOPAT). (Use Table Two)

THE TASK

Assume the role of Ann Bush and prepare answers to the following:

- 1) Discuss each valuation method. Describe the strengths and weaknesses of each?
 - a) Asset based methods.
 - i) Accounting book value.
 - ii) Adjusted tangible book value,
 - iii) Liquidation value.
 - b) Market comparison.
 - i) Price/Earnings ratio (P/E multiple).
 - ii) Multiple of book value.
 - iii) Multiple of revenue.
 - c) Free cash flow (also called the discounted cash flow method).
- 2) Using methods discussed in Question 1 develop values for First Chemical's stock.
- 3) Recommend a fair-market value for First Chemical's common stock. Support your value.
- 4) Assume St. Louis Chemical has an interest in acquiring First Chemical.
 - a) Discuss additional First Chemical information that should be requested to improve the acquisition analysis? Explain your answer.
 - b) Recommend a negotiating strategy.
- 5) Assume St. Louis Chemical decides to purchase First Chemical. Recommend how the sale should be structured.
 - a) Payment alternatives.
 - i) Cash at closing.
 - ii) An initial cash payment plus future payments or as stock.
 - iii) Some combination of the aforementioned.
 - iv) How will sales terms affect price? Explain your answer.
 - b) Should stock or assets be acquired? How will the purchase of stock or assets affect price? Explain your answer.

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| St. Louis Chemical: The Acquisition | | | | |
|--|--------|--------|--------|--------|
| Table One: First Chemical Statement of Income (000s/\$) | | | | |
| For the Years Ending December 31 | | | | |
| | 1999 | 2000 | 2001 | 2002 |
| | \$ | \$ | \$ | \$ |
| Net Sales | 36,786 | 38,912 | 40,936 | 39,841 |
| Costs and expenses | | | | |
| Cost of sales | 31,721 | 33,441 | 35,225 | 34,227 |
| Selling G & A | 2,980 | 3,199 | 3,426 | 3,323 |
| Depreciation Expense | 743 | 802 | 815 | 753 |
| Total costs and expenses | 35,444 | 37,442 | 39,466 | 38,303 |
| Operating income | 1,343 | 1,471 | 1,470 | 1,538 |
| Interest expense | 375 | 385 | 434 | 402 |
| Income before income taxes | 968 | 1,086 | 1,036 | 1,136 |
| Income tax expenses | 290 | 326 | 311 | 341 |
| Net Income | 678 | 760 | 725 | 795 |
| Earnings per share | 0.68 | 0.76 | 0.73 | 0.80 |
| Dividends per share | 0.10 | 0.11 | 0.12 | 0.13 |

| St. Louis Chemical: The Acquisition | | |
|--|---------|---------|
| Table One: Continued | | |
| Balance Sheets (000s/\$) For the year ending December 31 | | |
| | 2001 | 2002 |
| Current assets | | |
| Cash | 112 | 189 |
| Receivables | 3,968 | 4,452 |
| Inventories | 4,822 | 5,123 |
| Prepaid expenses | 129 | 137 |
| Total current assets | 9,031 | 9,901 |
| Property and equipment at cost | | |
| Land | 1,689 | 1,689 |
| Plant, property and equipment | 9,455 | 9,455 |
| Plant, property depreciation | (3,954) | (4,707) |
| Total plant, property and equipment | 7,190 | 6,437 |
| Total assets | 16,221 | 16,338 |
| Current liabilities | | |
| Accounts payable | 4,984 | 4,424 |
| Accrued expenses | 162 | 174 |
| Total current liabilities | 5,146 | 4,598 |
| Long-term obligations | 3,000 | 3,000 |
| Total liabilities | 8,146 | 7,598 |
| Shareholders' equity | | |
| Common stock \$1 par value* | 1,000 | 1,000 |
| Paid in capital | 2,253 | 2,253 |
| Retained earnings | 4,822 | 5,487 |
| Total shareholders' equity | 8,075 | 8,740 |
| Total liabilities and equity | 16,221 | 16,338 |
| *2,000,000 shares authorized, 1,000,000 shares outstanding | | |

| Table Two: Free Cash Flow | | | | | | |
|--|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 2002 Actual | 2003 Projected | 2004 Projected | 2005 Projected | 2006 Projected | 2007 Projected |
| | (000's/\$) | (000's/\$) | (000's/\$) | (000's/\$) | (000's/\$) | (000's/\$) |
| Sales | 39,841 | 41,435 | | | | |
| Cost of Goods Sold | 34,227 | 34,805 | | | | |
| Selling G & A | 3,323 | 3,315 | | | | |
| Operating Expenses ex depr (\$) | 37,550 | 38,120 | | | | |
| Depreciation Expense | 753 | 800 | | | 725 | 700 |
| Operating Income | 1,538 | 2,515 | | | | |
| Income Tax Expense (30%) | 461 | 755 | | | | |
| NOPAT | 1,077 | 1,760 | | | | |
| Current Assets | 9,901 | 9,944 | | | | |
| Current Liabilities | 4,598 | 5,801 | | | | |
| Required Net Working Capital | 5,303 | 4,143 | | | | |
| Capita Expenditures | | 1,000 | | 800 | | 800 |
| Required Net Plant & Equipment | 6,437 | 7,437 | | | | |
| Required Net Operating Capital | 11,740 | 11,580 | | | | |
| Required New Operating Capital | | (160) | (11,580) | | | |
| Free CF (NOPAT- Req New Oper Capital) | | 1,920 | | | | |
| Horizon Value | | | | | | |
| Discount Rate | 0.11 | | | | | |
| PV of free cash flow @ 11% | | | | | | |
| PV of horizon value @ 11% | | | | | | |
| PV of future cash flows @ 11% | | | | | | |
| Value of debt | 7,598 | | | | | |
| Value of equity | | | | | | |
| Number of Shares Outstanding | 1,000,000 | | | | | |
| Value per Share | | | | | | |

KIRKLAND'S, INC.

Wilburn Lane, Lambuth University
Mike McCullough, University of Tennessee at Martin

CASE DESCRIPTION

In this case the authors tell the story of the founding and impressive growth of Kirkland's Incorporated. The story is one of niche marketing perfected through a deep understanding of product acquisition and merchandise display by a management team that has stayed together for decades. The case is suitable for an upper division undergraduate marketing strategy or business strategy course, perhaps even as a capstone project. The case is designed to be taught in one fifty to seventy-five minute class period, with about thirty to forty-five minutes of reading and preparation time on the students' part, prior to class.

CASE SYNOPSIS

This case is about Kirkland's Inc., a specialty retailer that began with one store in the late 1960s, and today has close to 300 stores with annual sales of over \$350 million. Also, it is adding about 30-40 new stores per year. Kirkland's began as a gift shop but has evolved into a home décor/accessories retailer. It has adjusted its product mix to meet the changing demands of consumers and because of some moves made by its competitors. The case includes a very detailed analysis of the home décor/accessories industry, a history of Kirkland's, the current status of Kirkland's (including its strategy and corporate culture), and a detailed description of its major competitors. Some detailed financial information is provided in the case, and current websites are referenced for additional financial information.

HOME DÉCOR/ACCESSORIES INDUSTRY

The home décor/accessories industry is a large and growing industry. In 2002, sales in this industry topped \$78 billion—an increase of 7.9% over the previous year. The average net profit margin in the industry was 3.8%. Most of the major competitors in the industry are chains of 150 stores or more. Rather than franchising the stores out to owners in the different regions of the country, the stores are operated as part of corporate chains. This means that economies of scale are very important and give the chain owner a lot of leverage with suppliers. Companies in this industry rely upon word-of-mouth, catalogs, and more recently the Internet to deliver their messages. Historically, they have not spent a lot of money in traditional advertising vehicles. The average size

store ranges from 3500 square feet for a small specialty retailer to 80,000 square feet for a big box store such as Bed, Bath, and Beyond.

This industry is highly fragmented. Competitors include the large mass merchandisers like Wal-Mart and Target; the specialty retailing chains like Kirkland's and Bombay; the big box (category killers) like Bed, Bath, and Beyond and Linens N' Things; the department stores like Macy's and Saks; the moderate to large size free standing specialty retailer who have chosen to use free standing stores like Pier 1; the catalog retailer; and the small specialty retailer with just one or a few stores. Ironically it seems that each of these segments of the industry have been able to carve out a niche for themselves, although department stores have been losing business to the other segments for the last 10 to 15 years.

Demographic trends have been very favorable for this industry. The number of people in the 40-64 age bracket (a prime age for these type of purchases) is growing fairly rapidly. There has been an increase in the number of people who own their home and those who own a second home. New and existing single-family home sales have increased every year since 1995.

Many of the stores in this industry have either left the mall venue or never were in large regional malls. Pier 1 has its own free standing stores, and other retailers in this industry have chosen to locate in power strips, life-style centers, or community strip centers. The rent is cheaper per square foot in these retail venues, there are more locations available in these venues, and they match the customer's desire to get in and out of the store quickly. Kirkland's, Inc. and Bombay Company are the only two large chain specialty retailers in this category that are still primarily in malls.

The big box stores have invaded the home décor/accessories business like it did with the home supply business when Home Depots and Lowe's began to dot the landscape of that industry. Category killers like Bed, Bath, and Beyond and Linens N' Things have built big box stores that focus in on certain categories and offer very reasonable prices in those categories. These stores have really had a devastating impact on department store sales in these product categories.

This industry has benefited greatly from the increased focus on home and family. The proliferation of home and garden channels has more people decorating their homes. New home related magazines have sprung up across the country, and we have experienced the nesting/cocooning effect since 9/11. Instead of spending time and money on travel, people are spending more money on their homes and more time with their family and friends.

Like many other retail industries, companies in this industry have found that customers are becoming more value focused. According to the U. S. Census Bureau, from 1995-2000, the discount retailer grew at a compounded annual rate of 8.9% compared to 2.1% for conventional department store chains. Today's consumers want depth of assortment, ease of access, superior service, total guarantees of satisfaction, and rock-bottom prices. The numbers above indicate that customers are placing emphasis on value, and retailers who offer value and these services will get more of the consumer dollar.

Product innovation is one of the keys to success in this industry. Product must be cutting edge and up-to-date. Customers enter these stores looking for new and innovative ways to decorate their homes. Companies must constantly update and tweak the merchandise mix and the items carried within each product category. If a company misreads the market it can quickly lose its place in the industry to a competitor. If this happens very often the company may lose its identity-a fatal mistake in this industry.

With emphasis being placed on value focused retailing and product innovation, the management of the supply chain has become even more critical. Companies are investing literally millions of dollars in information systems that allow them to track their inventory, place orders, and shift merchandise at the push of a button or the click of a mouse. Many companies have established their own distribution systems and truck fleets. Some companies have even established buying offices overseas to cut out middle people. Companies have found that by better managing their supply chain they can lower their distribution and inventory costs, maintain their margins, and still offer the product to the customer at a lower price.

Some companies in the home décor/accessories industry have begun to segment the market by age. Williams-Sonoma, through its Pottery Barn stores, has developed stores and/or catalogs for kids and teens. Pier 1 has opened CargoKids to provide home décor/accessories for children. Bombay plans to open a 100 "Bombay Kids" over the next three years. As the population continues to grow in these categories, it will be interesting to see how the other major players in the industry adapt to the changing demographics.

Like most other retail businesses, the home décor/accessories business has been and will continue to be impacted by e-commerce. As customers learn how to use the Internet and become more comfortable with providing financial information via the Internet, sales on the Internet will continue to grow. While Internet sales in this industry are not as large as they are in some other industries at this time, all the major players are gearing up to exploit this market. Because of its extensive catalog business, William-Sonoma has probably benefited more from this retail venue than the other companies, but it is only a matter of time before the others become more aggressive in e-commerce.

Globalization is another force that is likely to change the home décor/accessories industry. As companies saturate the United States market, they have begun to go international. Pier 1 has stores in Mexico, Puerto Rico, Canada, and the United Kingdom. Some of the largest companies in this industry are international firms. For example, IKEA is a Swedish firm that has stores throughout Europe and has annual sales in excess of \$11 billion. This internationalization of the industry will bring new challenges to firms in this industry. The need to provide products that are appropriate for different lifestyles and different tastes will make the tasks of product innovation, inventory management and distribution even more challenging.

THE HISTORY OF KIRKLAND'S

Carl Kirkland, the co-founder of Kirkland's Inc., grew up in the retailing business. His father and grandfather ran a clothing store in Union City, Tennessee called Kirkland's Klothng. Carl fondly remembers that at age ten his father put him in charge of the Boy Scout department. After graduating from college with a degree in accounting, Carl went to work for a large home building firm in Memphis, Tennessee. During the mid-1960s, they develop a lot of the residential proper along the new I- 240 By-pass. Carl says that when he drives in that area today, he recognizes the houses they build and can picture what they looked like inside. As interest rate began to rise in the mid to late 1960s, the housing bubble burst and people quit buying new homes. Carl decided that he needed to look for another line of work.

In 1968, he returned to his retailing roots and opened a franchised gift shop in the recently built Old Hickory Mall in Jackson, Tennessee. Carl recalls that the store was reasonably successful from the beginning, and they did about \$150,000 in sales the first year-a pretty good some of money for the times. About the same time, Carl's cousin, Robert Kirkland, opened a gift shop by the same franchiser in Nashville, Tennessee. Because of their success they began to look for other opportunities.

They opened another store in Charlotte, North Carolina. The next store they opened was in Knoxville, Tennessee. By the early 1970's, they had ten stores. Carl and Robert reached an agreement with the franchiser to disassociate themselves from the franchiser. At that time, the name of the stores was changed to Kirkland's. By this time Bruce Moore had been brought into the business to manage the stores east of Nashville, Tennessee. Throughout the 1970s and early 1980s, the Kirklands opened new stores and bought four stores. By the mid 1980s, they had 20 stores.

In the late 1970's Carl and his cousin began to travel to the orient looking for merchandise for Kirkland's. After doing this for a few years, they decided to go into the import wholesale business. At that point they started a company call CBK, which stood for Carl and Bob Kirkland. This business mainly catered to small retail gift shops, many of which were mom and pop stores that could not buy in large quantities. This business was run as a separate business, and they really never sold much merchandise to Kirkland's, Inc.

In 1986, the Kirklands decided to bring in two new partners. Bruce Moore, who had been in charge of their eastern stores, was made a partner. Robert Alderson, who was an attorney in Jackson, Tennessee, was brought in as a partner and put in charge of operations.

In the late 1980's, Robert Kirkland assumed responsibility for CBK and Carl assumed responsibility for Kirkland's, Inc. Kirkland's continued to grow and had about 50 stores by 1990. By 1995, Kirkland's had grown to over 100 stores. It was about this time that Robert Kirkland decided that he wanted to divest himself of his interest in Kirkland's, Inc. At the same time the other partners were looking for ways to expand the business. To accomplish both task they brought in the venture capitalist-Advent International. Advent put in about \$30 million dollars and was given a

two-thirds equity interest in the business and their representatives received seats on the board of directors. The four existing partners and shareholders retained a one-third interest in the business. This allowed Kirkland's to spread and lower the risk of the huge expansion that was to follow in the next five years. The company grew very rapidly from 1995 until 2000. The number of stores went from 104 stores in 1995 to 240 stores in 2000. The late 1990's saw several personnel changes. In 1997, Bruce Moore, who was a partner and in charge of merchandising, left the company. With his departure, Chris LaFont, who had worked under Bruce Moore for almost 20 years was named Vice President for Merchandising. In 1998, Reynolds Faulkner, an investment banker who had advised the Kirkland's shareholders regarding the deal between Kirkland's and Advent International, was brought on board as the Chief Financial Officer. He had a lot of experience with retailers and their work in raising capital to support their business. In the late 1990s, they brought in several new members of the management team as they enhanced their Information Systems, started a Centralized Distribution System, and improved their operating procedures.

On July 11, 2002, Kirkland's Inc. went public, raising about \$90 million. Robert Kirkland sold his remaining share in the business, and the company retired virtually all of its debt. It has remained debt free to this day, except for the line of credit it uses to fund inventory from time to time. Carl Kirkland is the Chairman of the Board, Robert Alderson is the President and CEO, Reynolds Faulkner is the CFO, and Chris LaFont is now Senior Vice President for Merchandising.

KIRKLAND'S TODAY

Kirkland's Inc. is a specialty retailer of home décor/accessory items. The stores have about 5,000 SKUs in a variety of merchandise categories including framed art, mirrors, candles, lamps, picture frames, accent rugs, garden accessories, and artificial floral products. The stores also offer an extensive assortment of holiday merchandise, as well as items carried throughout the year suitable for gift giving. In addition, the company uses innovative design and packaging to market home décor items as gifts.

Kirkland's purchases merchandise from approximately 200 vendors, and its buying team works closely with many of these vendors to differentiate the company's merchandise from that of its competitors. Kirkland's estimates that over 60% of its merchandise assortment is designed or packaged exclusively for the company. Generally, this is done based on the buyer's experience in modifying certain merchandise characteristics or interpreting market trends into a product and price point that will appeal to the company's customer. For products that are not manufactured specifically for it, the company may create custom packaging as a way to differentiate its merchandise offering and reinforce its brand names. The company markets a substantial portion of its exclusive or custom-package merchandise assortment under the Cedar Creek private label brand and other proprietary names. Its strategy is to continue to grow the company's exclusive and proprietary products and custom-packaged products within its merchandise mix. The average size

store is 4500 square feet with 70% of the space devoted to displaying merchandise. The average sales per square foot is \$313, which is among the highest in their category.

The average sales per store is \$1.4 million. Last year, Kirkland's had \$341.5 million in sales-an 11.2% growth in sales. Their net income was \$16.3 million, and their net profit margin was 4.8%. Most of the stores are in malls, but they have begun to open stores outside the traditional mall venue. They are opening stores in power strips, life-style centers, and large-scale outlet malls.

Kirkland's has been successful in large metropolitan areas, moderate size cities, and small towns. They have been successful in cities with literally millions of people and small towns with less than 50,000 people. Their concept has wide appeal and is successful in a variety of retail settings. While most of the stores were originally opened in the southeastern part of the United States, they have begun to open stores in other regions of the country. Currently 40% of the stores are located outside the southeast. Of the 100 stores they have opened since 1997, 60 of them have been outside the southeast. They are looking to grow in the Midwest, Texas, Florida, and the Atlantic states. They are also looking for retail venues on the West Coast and in the northeastern corridor from Philly to Boston. They plan to have 320 stores by the end of 2004, and their goal is to have 1,000 stores nationwide eventually. Because of Kirkland's success in metropolitan, middle and smaller markets, Kirkland's is on many retail landlords' wish list, which makes it easier for them to find prime locations.

Kirkland's target market is the female between the ages of 25 and 55 who has average to above average income. They come to Kirkland's looking for that unique combination of style and value. They see the shopping experience at Kirkland's as a "treasure hunt." Customers often ask, "What is new today?" The average price of a product at Kirkland's is \$12.00, and most of their merchandise is under \$50.00. The Kirkland's customer is very pleased when she finds an identical or similar item at Kirkland's for a fraction of the price she saw in another store. Kirkland's customers are very loyal. The freshness of their merchandise combined with style and value make Kirkland's a "must shop store" every time they go to mall.

STRATEGIC KEYS TO KIRKLAND'S SUCCESS

Kirkland's is very proud of its business strategy and feels it is the reason they have been so successful. There are five key elements of Kirkland's business strategy that differentiate them from their competitors and allow them to be successful where others have failed. These elements are discussed below.

Item-focus merchandising.

While their stores contain a broad range of complementary product categories, they emphasize key items within their targeted categories rather than merchandising complete product

classifications. They do not attempt to be a fashion leader, but their buyers work closely with their vendors to identify and develop stylish merchandise reflecting the latest trends. This allows them to respond quickly to changing trends. As mentioned earlier, approximately 60% of their merchandise is designed and packaged exclusively for Kirkland's, which distinguishes them in the marketplace and enhances their margins.

Ever-changing merchandise mix.

While they maintain about 5,000 SKUs in their stores, they are constantly bringing in new "fresh" merchandise to create an exciting "treasure hunt" environment that encourages strong customer loyalty and frequent return visits to their stores. The merchandise is traditionally styled for broad market appeal, yet reflects an understanding of their customer's desire for newness and freshness. Their information system allows them to keep close track of individual item sales, enabling them to react quickly to both fast-selling and slow-moving items. They actively change their merchandise throughout the year in response to market trends, sales results and changes in season. Also, they strategically increase selling space devoted to gifts and seasonal merchandise in advance of holidays. They have a very experienced buying team-some have been with Kirkland's for more than twenty years. They work together to ensure that the products they buy will work in a Kirkland's store. Their experience and teamwork ensure that Kirkland's is constantly projecting the image of a store that offers traditional style that is current.

Stimulating visual presentation.

The stores have a distinctive, "interior design" look that helps customers visualize the merchandise in their own homes and inspires decorating and gift-giving ideas. They use multiple merchandise arrangements to simulate home settings. This allows them to group complementary merchandise creatively throughout the store rather than display products strictly by category or product type. This cross-category merchandising strategy encourages customers to browse for longer periods of time, promoting add-on sales. While the average price of an item is \$12.00, the average sales ticket is about \$30.00.

Strong value proposition.

Their customers regularly experience the satisfaction of paying noticeably less for items similar or identical to those sold by other retail stores, through catalogs, or via the Internet. The unique combination of style and value is an important element in making Kirkland's a destination store. While they carry items that sell for several hundred dollars, most of their items sell for under \$50 and are perceived by the customers as "affordable luxuries." They are known in the industry

as being tough negotiators on price. They are able to do this for three reasons. First, for the items they carry in their stores, they buy in large quantities. Second, they do not do a lot of charge backs to their suppliers. Third, unlike many other retailers in the industry, they pay when they say they will. Vendors have found that they can sell to Kirkland's at a lower price and do so profitably.

Flexible approach to real estate.

They operate in a wide spectrum of different regions, market sizes, and real estate venues. Their lease arrangements are very advantageous. Their leases are for no more than ten years with a clause that allows them (or the landlord) to get out of the lease after five years. If the sales do not reach a certain amount by the fifth year, they can get out of the lease. Also, they have clauses in their leases that allow them to get out of a contract if other stores in the mall leave. This makes it easy for them to open stores in very desirable locations and to close stores that are not performing to expectations. Kirkland's reputation makes landlords want Kirkland's in their shopping centers. Because of their experience in opening stores and their wonderful reputation as a tenant, they can open a store and stock it for an initial investment of \$300,000. They estimate their payback on a new store to be two years.

TWEAKING THE STRATEGY

While the primary business strategy has remained the same for years, Kirkland's has done several things to tweak the strategy to make it better. First, they are no longer considered a gift shop. Granted they still carry seasonal/gift items, and the fourth quarter of the year is still very important to them-40% of their sales and 80% of their profits occur during the fourth quarter. However, over the years they have moved from being a gift shop to being a retailer of home décor/accessories items. They have phased out the tableware because they could not compete with department stores that offer greater width and depth of assortment in this category.

They no longer carry collectibles (such as Precious Moments) because there are a lot of small gift shops that now carry these items. At one time they had an extensive collection of dolls, but much of that business is now at Wal-Mart or other mass merchandisers. They have replaced these product categories with lamps and wall décor such as framed art. According to Chris LaFont (Senior Vice President for Merchandise), 60-70% of their business is strictly home décor/accessories purchases.

Second, while according to Robert Alderson (President and CEO), "Kirkland's grew up in the malls," they are now considering other retail venues. Their desire to have more stores and the declining popularity and number of new malls has forced Kirkland's to consider other retail venues. As Mr. Alderson said, "today's customer want to drive up in front of the store, get out, go in, get what they want, and get out quickly." Kirkland's has recognized this change in shopping patterns

and is repositioning itself to reach its target market. They now have stores in power strips, life-style centers, and large-scale outlet malls.

Third, they have upgraded their information system so they can keep better control over their inventory. Over a three-year period (beginning in 1999), Kirkland's invested \$6.5 million in a new information technology that tracks each store's sales and inventory. This helps them determine what merchandise needs to be replenished and what needs to be shifted to other stores. This has allowed the store manager to concentrate more on visual presentation and selling rather than managing inventory.

Fourth, in addition to the new information technology, they have established a central distribution system in Jackson, Tennessee. Previously, the merchandise was shipped directly from the vendor to the individual stores. This meant each store manager had to manage the inventory and find suitable storage space for the merchandise. With the new central distribution system, the vendor ships the merchandise to one location; and the merchandise is distributed to the stores as needed. Currently, about 75% of their merchandise is distributed this way. This has saved a lot of money in freight costs and in local storage costs. The new information technology and the new distribution system have allowed Kirkland's to reduce the individual store's inventory and speed up its turnover rate.

Fifth, while Kirkland's is still a brick and mortar business, they have established a website where customers can learn more about Kirkland's, find store locations, download coupons, purchase gift certificates, make purchases, and communicate with Kirkland's. They plan to offer some incentives that will give them more information about their customers and allow them to communicate with customers via e-mail.

THE CORPORATE CULTURE

The first thing you notice when you walk into Kirkland's headquarters is that it is not like most large, public companies. It is a very laid back unassuming atmosphere. As you talk with those who work there, you realize that it is more than job. It is a way of life. They do not talk about what they have accomplished--they talk about what Kirkland's, Inc. has accomplished. Teamwork is more than the latest buzzword--it is how they conduct business. Most of the employees have been with the company for several years. Three of the four top officers have a total of 79 years of experience with the company. Their buyers have worked their way up the ladder. They know what Kirkland's is all about. They know what will sell at Kirkland's, and how much they can charge for it. Kirkland's is very proud of the fact that most of the employees grew up with Kirkland's. They like to promote from within, and only look to the outside when they have a new need as they did in the late 1990s with Information Technology and Centralized Distribution.

COMPETITORS

As mentioned earlier Kirkland's operates in a very fragmented industry, and they compete with a variety of retailers. Below is a discussion of some of their major competitors classified by retail venue.

Mall Competitors.

Kirkland's biggest competitor in the mall is the home décor/accessories department of major retail department stores. These vary from one location to another depending on which department stores are in that mall. While the department store may offer a wide selection of merchandise, it does not compete very effectively with Kirkland's on price. One of the great joys for a Kirkland's shopper is to find something in a Kirkland's store that is identical or similar to something they have seen in a large department store for a fraction of the price.

As far as specialty retailers go, Bombay Company is probably Kirkland's major competitor in the mall. The company was founded in the late 1970's, and according to Yahoo Finance they employ about 2000 full-time workers, have 422 stores in 42 states and 9 Canadian provinces. They also sell through the Internet and retail catalogs. They offer classic and traditional furniture, wall décor, and accessories for the bedroom, dining room, home office, and living room. It has begun to offer baskets, candles, home fragrances, crystal, and soft goods. They have a fashion component to their product offerings-primarily in the accessories and wall décor areas. They are gradually migrating from mall-based stores to larger off-the-mall locations.

They also have a wholesale division called Bailey Street Trading Company that focuses on furniture, but plans to expand into wall décor and accessories. The wholesale division distributes merchandise to a variety of customers, including gift stores, catalogers, furniture stores and mass merchandisers through a network of independent regional representatives. Bombay International, Inc. is the company's international licensing distribution channel and has licensed 10 stores operating in the Middle East and the Caribbean. Bombay's merchandise is divided into three categories-furniture, accessories, and wall décor. Occasional furniture is about 12% of the company's sales, large furniture is about 32% of the company's sales, accessories comprise about 43% of the company's sales, and the remaining 13% of sales come from wall décor. They have approximately 4,400 SKUs of which 95% of the products have been designed or styled to Bombay's specifications.

They introduced about 2600 SKUs last year. Their new product introductions are concentrated during the company's spring, fall and Christmas marketing periods. Bombay has struggled since the mid-1990s, and their price points are considered to be higher than those of Kirkland's. Last years sales were \$494.4 million with a net income of \$7.2 million. This represents a net profit margin of 1.5%, which is the lowest in the industry. To overcome this problem, they are

rolling out new store formats featuring furniture and accessories that are not as classical or traditional as they have been in the past. Also Bombay has introduced its own line of children's room furnishing. This new line is available through catalogs, online, and at their new Bombay Kids locations. They plan to open 100 Bombay Kids stores in the next three years. Only time will tell if Bombay's new stores and formats will provide the retail profitability enjoyed by other industry members.

Big Box Stores.

As mentioned earlier the big box stores have invaded the home décor/accessories industry like they have in the home supply industry. These category killers focus in on certain product categories and offer very reasonable prices in those product categories. These stores have had a devastating impact on department store sales in these product categories. The two major big box stores in the home décor/accessories industry are Bed, Bath and Beyond and Linen N' Things.

Bed, Bath, and Beyond was founded in 1971. According to Yahoo Finance, it has 12,000 employees and operates 497 stores in 44 states and Puerto Rico. The stores sell domestic merchandise and home furnishings typically found in department stores. Their domestic merchandise includes bed linens, bath accessories, and kitchen textiles. Their home furnishing merchandise includes cookware, dinnerware, glassware, and basic housewares.

Their domestic merchandise and home furnishing offering includes linens and related items such as sheets, comforters, duvet covers, bedspreads, quilts, window treatments, decorative pillows, blankets, dust ruffles, bed and mattress pads; bath items such as towels, shower curtains and liners, waste baskets, mirrors, hamper, robes, slippers, scales, bathroom rugs, wall hardware and other bath accessories; kitchen textiles such as tabletop items including cookware, cutlery, kitchen dinnerware, bakeware, flatware, drinkware, serveware, glassware, food storage containers, kettles, trash cans, and cleaning supplies. Also, they offer fine tabletop and giftware such as formal dinnerware china, fine crystal stemware, barware, crystal giftware, metal giftware, and flatware. Their basic housewares include storage items, closet-related items, live-style accessories such as lamps, chairs, ready to assemble furniture, furniture covers, accent rugs and clocks. They offer small electrical appliance-blenders, coffeemakers, etc. Also, they offer general home furnishings such as gift-wrap, candles, personal care products (soap and lotions), frames, wall art and juvenile items such as toy and children's books. In addition they offer artificial plants, floral, and seasonal merchandise.

The brand names are typically the same brand names found in department stores, but at a lower price. They have the vendors ship the merchandise directly to the stores. They rely exclusively on circulars, mailings, and word-of-mouth to promote their stores. In his article "Home Sweet Home Furnishing Companies," retail analyst Don Trott calls Bed, Bath and Beyond the "Jewel of the Sector." Last year they had \$3,665.2 million in sales (25.2% growth in sales), and they had a net profit of \$302.2 million—a 37.6% growth in net profit. Their profit margin was 8.2%,

which was the highest in the home décor/accessories industry. The stores have recently undergone some changes to appeal to younger markets including the apartment dweller. They go for less expensive locations like strip shopping centers, freestanding stores, and off-price malls rather than the pricier regional malls. They are building larger and larger stores to re-enforce the concept of one stop shopping for their product categories. Some stores are as large as 80,000 square feet, and the average size store has 42,000 square feet. Most of the firm's growth comes from new superstore openings-70 or more a year. They acquired the Harmon Stores, Inc. (29 stores) in 2002 and the Christmas Tree Shops (23 stores) in 2003. They began online sales in 1999. Their wide assortment of brand name products, low prices, and accessibility make them the number one superstore chain in their category.

Linen N' Things is the other big box store in the home décor/accessories industry. It was founded in 1975 (Reuters Investor). According to Yahoo Finance, they have 7,100 full-time employees working in 391 stores in 45 states and four Canadian provinces. They provide their customers with a one-stop shopping destination for their home furnishing needs by offering a selection of brand name linens such as bedding, towel, window treatments, table linens, and "things" such as housewares, home and decorative accessories. Most of their merchandise mix is in linens, but they are trying to change that by adding other items that have a higher profit margin.

They carry brand names as well as their own private label-LNT Home. The stores range in size from 25,000 to 50,000 square feet and have about 25,000 SKUs (Reuters Investor). Stores feature a racetrack layout that allows customers to visualize and purchase coordinate accessorized ensembles. The superstore format saves the customer time because the merchandise is visible and accessible. They have a website that has over 10,000 SKUs. In 2002, they started a credit card for customers that give them advanced notice of promotions, extra discounts, and the benefit of a purchase-based rewards program. Linen N' Things is a category killer in the linens area. In recent years they have had some financial problems, but they seem to be turning the corner. Last year they had \$2,184.7 million in sales compared to \$1,823.8 million the previous year. Their net profit margin was 3.2% last year and has been in the 3-4% range for the last few years. This is about half the net profit margin of Bed, Bath, and Beyond.

Free Standing Stores.

Some retailers in this industry have chosen to use free standing stores. These stores may be close to malls or various types of strip centers. These store cater to the customer's desire to pull up to the front of the store, go in, get what they want, and get out quickly. One of the most successful retailers operating in this venue is Pier 1.

Pier 1 was founded in 1962, and last year had nearly 1100 stores in the United States and Canada. Also, they have 50 stores in the United Kingdom under The Pier chain. According to Yahoo Finance, they have about 7,900 full-time employees. They carry about 5,000 different items

that are imported from 40 countries. They carry a variety of products including indoor and outdoor furniture, lamps, baskets, ceramics, dinnerware, candles, and specialty products. Many of the products are handcrafted, and the company favors natural materials such as rattan and wood. Pier 1 has gradually changed its merchandise from the exotic knickknacks baby boomers used to decorate their dorm rooms to the more upscale, but still exotic household furnishing they buy today. Below is the breakdown of 2003 sales by product category:

| | | |
|-------------------|---------------|-----|
| Furniture | \$667 Million | 38% |
| Décor Accessories | \$421 Million | 24% |
| Bed & Bath | \$316 Million | 18% |
| Houseware | \$228 Million | 13% |
| Seasonal | \$123 Million | 7% |

Total sales for 2003 were \$1,754.9 million up from \$1,548.6 million in 2002. Their net profit margin rose from 6.5% in 2002 to 7.4% in 2003. In 2000, they started selling online. They now have over 2000 merchandise items for sale online. The website has gift cards, an online clearance store, a furniture guide, and Bridal and Gift Registry program. In 2001, Pier One acquired CargoKids (formerly Cargo Furniture). This was a 25-store chain that carries children's furniture and accessories. They plan to double the number of the stores by the end of 2004. Pier 1 is very aggressive in opening new stores. It opened 90 stores in 2003 and plans to open 115 new stores and close approximately 30-35 stores in North American in 2004. Pier One has carved out a niche for itself of younger to middle age housewives who enjoy exotic accessories in a mid price range.

Another good example of this type of retailer is Cost Plus-World Markets (CPWM). This business was incorporated in 1946 and the original owner of Pier 1 actually started out with a chain of Cost Plus stores. According to Yahoo Finance, Cost Plus-World Markets has 1875 full-time employees working in 175 stores (operating under the name of World Market, Cost Plus World Market, Cost Plus, or Cost Plus Imports) in 23 states. Most of the stores are in the west, but they are moving east. Recently they opened a distribution center in Virginia. They sell furniture, rugs, baskets, and ceramics, as well as exotic food and beverages. They are constantly changing their selection of unique products-many of which are imports at value prices. Most of their products are proprietary or private label, often incorporating the company's own designs, the World Market brand name. They import over 10,000 different items from over 60 countries.

The quality standards and specifications typically would not be available at department stores or other specialty retailers. The stores are designed to resemble an upscale Third World market. The company targets women between the ages 22-55. Complementary products are positioned in proximity to one another and cross merchandising themes are used in merchandise displays to tie

different product offerings together. They use an unobstructed floor plan that allows customers to see virtually all the different product areas as they enter the store. They have power isles that display and highlight sharply priced items. These isles lead customers through the store to the different product areas. The company has a seasonal shop in the center of the store for seasonal products. End caps, bulk stacks, and freestanding displays are changed frequently. The average selling space in the store is 16,000 square feet with another 2,000 square feet devoted to office and stock space. In 2003 sales were \$692.3 million compared with \$568.5 million in 2002. Net income in 2003 was 28.4 million compared to 20.2 million in 2002. The net profit margin for 2003 was 4.1%, and since 1997 the net profit margin has ranged from 3.4% to 4.9%. The selling of exotic foods and beverages and their emphasis on low price truly separates Cost Plus-World Markets from its competitors.

MULTI-VENURE RETAILERS

Multi-venue retailers are those that compete in several retail venues. The epitome of the multi-venue retailer is Williams-Sonoma. They were founded in 1956. They have four retail concepts-Williams-Sonoma, Pottery Barn, Pottery Barn Kids and Hold Everything. They offer catalog sales in nine different areas-Williams-Sonoma, Pottery Barn, Pbteen, Pottery Barn Kids, Pottery Barn Bed + Bath, Hold Everything, West Elm and Chambers. They have four e-commerce websites-wswedding.com, williams-sonoma.com, potterybarn.com and potterybarnkids.com. Direct-to-customer sales (catalog and Internet) account for almost 40% of their business. According to Yahoo Finance, they have 478 stores operating in 42 states, Washington, D.C., and Toronto, Canada.

The average store size for Pottery Barn is 10,500 square feet. The average store size for Pottery Barn Kids is 7,700 square feet. The average store size for Williams-Sonoma is 7300 square feet. The Williams-Sonoma stores are often found in malls. The Pottery Barn stores are often found in a variety of strip centers and in malls. They have been in the catalog business since 1972 when they introduced their first Williams-Sonoma catalog. The other businesses added catalogs in the 1980s. Their experience as catalog retailers has allowed them to become very successful in the Internet market very quickly.

All of the stores cater to the middle to upper income design-conscious consumer who wants classic pieces with contemporary styling. The Williams-Sonoma stores sell cookware essentials. The Pottery Barn stores sell contemporary tableware and home furnishings. The Pottery Barn Kids sell stylish children's furnishings. In addition to selling in a number of retail venues, they have aggressively segmented the home décor/accessories market. In addition to the Pottery Barn Kids stores, they created the Pottery Barn Bed + Bath catalog in 2000 to serve customers in these areas. In 2002 they established the West Elm catalog. This catalog targets young design conscious consumers looking to furnish and accessorize their apartment. Also, they offer lots of quality

products at accessible prices for first-time home buyers. Their offering includes furniture, decorative accessories, tabletop items and an extensive textile collection. In 2003, they launched their newest catalog Pbteen.

This catalog is exclusively for the teens' areas-bedrooms, study, and lounge. They offer five key merchandise categories-furniture, rugs, lighting, bedding and accessories. Williams-Sonoma's ability to operate in a number of venues and to aggressively segment the market has made them a major player in the home décor/accessories industry. Last year their sales were \$2.36 billion, and they had a net income of \$134.87 million. Their net profit margin was 5.3% compared to 3.6% in 2002. Since 1997, their net profit has ranged from 5.3% to 2.8%

For additional financial information you can go to Yahoo Finance and type in the following symbol. (Financial information for the last three years and the previous four quarters is available.)

- ◆ Kirkland's-KIRK
- ◆ Bed, Bath, and Beyond-BBBY
- ◆ Linen N' Things-LIN
- ◆ Pier 1 Imports-PIR
- ◆ Bombay Company-BBA
- ◆ Cost Plus, Inc-CPWM
- ◆ Williams-Sonoma-WSM
- ◆ Yahoo Finance also has recent news on each company.
- ◆ If you have access to Lexis-Nexis, you will find additional data on each company.
- ◆ All of the companies have websites that you may visit as well.

With the information presented above, develop a strategy for Kirkland's for the next five years.

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NEW CREDIT PROGRAM AT THE DISCOUNT WINDOW

Amanda S. King, Georgia Southern University
Darrell Parker, Georgia Southern University
Bill Z. Yang, Georgia Southern University

CASE DESCRIPTION

The primary subject matter of this case concerns the effect of the new credit program at the discount window on the behavior of the federal funds rate. The objective is to teach students how the basic demand-and-supply framework is employed to analyze the conduct of monetary policy in the reserve market. This case would be appropriate for a money and banking class, a monetary economics class, a financial economics class, an intermediate or an advance macroeconomic theory class. Level of difficulty could be at three or four. The case is designed to be discussed in one and one-half hours and should take students less than three hours of outside preparation.

CASE SYNOPSIS

The Federal Reserve employs three monetary policy tools: the required reserves, the open market operation (which affects the federal funds rate) and the discount policy. Traditionally (i.e., before January 9, 2003), the Fed set the discount rate below the targeted market federal funds rate, but prohibited banks from using the discount window. As a result, the volume of outstanding discount loans was normally small even though the discount rate is cheaper than the federal funds rate.

On January 9, 2003, the Federal Reserve introduced new lending programs, which are different from their predecessors in several aspects. The most significant changes are (1) the discount rates are now set above the prevailing federal funds rate, and (2) banks face very few restrictions on their use of primary credit. The proposal to make such changes is based on the following beliefs. First, it will eliminate the existing incentive for banks to borrow from the window to exploit the positive spread, and hence reduce the administration necessary for each discount loan. Second, as a result, it should help encourage banks to turn to the discount window only when the reserve markets tighten significantly and thereby the window serves as the last resort and a backup source of liquidity for individual depository institutions. Third, the discount rate will become an improved safety valve for releasing significant market pressures.

INTRODUCTION

Will Thomas is a researcher at a large bank. He has been closely following the decision making process that the Federal Reserve Bank has been going through in the last several months on what to do about its discount lending program. Now it is official. As of January 9, 2003 the Fed will change its discount lending procedures. Will knows that his bosses will now be expecting a complete analysis from him on how these changes will impact 1) discount lending and the economy and 2) their bank and banking practices.

THE REPORT

So far Will has gathered the following information and written it up for the introduction of his report. It is as follows:

On January 9, 2003 the Federal Reserve System will enact amendments to Regulation A so that the discount rate will be set above the targeted federal funds rate instead of below it. This amendment will also replace the adjustment credit and extended credit lending programs with primary credit and secondary credit lending programs.

The primary credit program will allow pre-approved depository institutions to get very short-term loans from the discount window at a rate which will initially be set at 100 basis points above the targeted federal funds rate. This program is quite similar to the adjustment credit program with two major exceptions. 1) Depository institutions will pay an interest rate above the fed funds rate for this loan, and 2) they will not need approval for the loan at the time of going to the window. Any pre-approved depository institution will automatically be eligible for the funds. The Fed sees this as a cost-saving move. As an added bonus, the Fed feels that by setting the discount rate above the targeted federal funds rate, the federal funds rate will be "capped", thereby keeping the target and actual rates closer together. The Fed also gains a way to release upward pressure on the fed funds rate when reserves markets become tight.

The secondary credit program will allow depository institutions that do not meet the pre-approval standards to have access to short-term loans. Extended credit will also be granted through this program. The interest rate for this program will be set at 50 basis points above the discount rate for the primary credit program. This program will operate in very

much the same way as the extended credit program did with the addition of short-term loans for non pre-approved depository institutions.

The Fed has opted not to make any changes to its seasonal lending program at this time.

BACKGROUND INFORMATION FOR YOUR ASSIGNMENT

In the past, Will's bank, like many others, never used the discount window to obtain short-term credit to deal with overnight shortfalls of reserves even though the discount rate was lower than the federal funds rate. It was just never an option that was allowable due to the large amounts of paper work involved and the bad market signal that might be sent. Only once did the bank's president want to borrow from the discount window to take advantage of the large spread between the discount rate and the federal funds rate and it had been Will who had convinced him not to.

Will's bank has an excellent CAMELS rating so he feels certain that the bank would meet the requirements for primary credit. Thus he has decided to focus his energy on fully explaining the primary credit lending program as that is the program that should most directly affect his bank. Will realizes that his report will have to give very specific justifications about why the "top brass" at his bank even need to take the time to read his report on the changes that are taking place. Will feels that by answering the following questions he will have a solid report that shows all the advantages of the new program for his bank and convinces the president and board that the primary lending program is something they need to be aware of.

Will has enlisted your help in researching and answering his list of questions. You should use supply and demand in the reserve market to help with the analysis of each question (Hint: graphs are helpful).

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PREDICTING A BANK'S FAILURE: A CASE STUDY OF A MINORITY BANK

Inder P Nijhawan, Fayetteville State University
Ulysess Taylor, Fayetteville State University

CASE DESCRIPTION

The primary objective of this case study is to identify indicators that can predict a bank's failure. The secondary objectives are to highlight strategies to restore the financial health of a bank and evaluate the strengths and weaknesses of a bank's performance measures. The case has a difficulty level of three, appropriate to junior level students in money and banking, commercial bank management, strategic management and business policy courses. The case is designed to be taught in three class hours and is expected to require at least three hours of preparation.

The case study provides students ample opportunity to study the selected financial data, compute the critical ratios, analyze the trends in critical ratios, understand a bank's exposure to credit and investment risks, assess the strengths and weaknesses of bank's basic performance indicators and evaluate strategies to restore to health a dying financial institution

CASE SYNOPSIS

The case study describes the trials and tribulations of a minority owned bank that was established to provide loans to African American consumers who were underserved by other financial institutions. From its inception, the bank had a checkered history. The bank went through several management changes. On three separate occasions, the bank received an unsatisfactory audit from the federal regulators. There was a steady deterioration in bank's basic performance indicators: capital adequacy, ratio of non-performing loans, net charge off loans, net interest margin and rate of return on its assets and equity. The bank was finally acquired by another financial institution and restored to solvency through a variety of meticulously planned performance improvement strategies.

INTRODUCTION

Bob Bas, a local newspaper reporter, picked up the State Bankers' Guide and noticed that Grove National Bank had posted over \$500,000 in net income for the calendar year ending 2000. The periodical also stated that the bank recently emerged from a federal consent decree order and was well on the way to recovery. He was curious how an organization (which seemed to be on its "death bed") could be transformed in such a short period of time. Bob also wondered if there were certain factors that could predict the downfall of a financial institution. With these questions in mind, he called George Hill, the Chairman of the Board and CEO of Grove and inquired about an interview. George stated that he was in luck because he would be in town the next few days and would be happy to meet with Bob. Bob also wanted to get the other side of the story so he called Beverley Allen, a former Board member, and asked about her availability. Beverley did not want to reminisce about the unpleasant past, but reluctantly agreed to meet with Bob.

The meeting took place in the conference room of the bank. Beverley shook hands with George and stated that it was nice to see him and that she was glad the bank is prospering. After the threesome were comfortably seated, Bob asked Beverley to provide a brief history of the bank prior to its change in ownership. Tears came to Beverley's eyes as she sat in familiar surroundings and started to reminisce about the good old days. She stated that Colony National Bank was a minority owned institution established in 1976 to provide services to consumers and investors (particularly African Americans) located in the southeastern region of North Carolina. She also noted that from its inception the bank had a checkered history going through several management changes. On three separate occasions, 1993, 1997, and 1999, it received an unsatisfactory audit from the federal regulators. Beverley noted that there was a steady deterioration in various performance indicators including capital adequacy, non-performing loans, net-charge off loans, net interest margin, rate of return on assets and rate of return on equity.

George stated that the bank was acquired by an Atlanta based financial institution in March 2000 and the name was changed to Grove National Bank (hereinafter referred to as Grove).

Market Environment

Beverly stated that prior to its acquisition, Grove was a relatively small institution with only two branches located in Fayetteville and High Point. The bank operated three offices with total deposits of \$30,568,000. The bank's deposits represented only 1.80 percent of the total deposits in the market (Beverly referred the audience to the attached financial data). The bank competed with several large banking institutions including Bank of America, Branch Banking and Trust Company, First Citizens Bank, First Union National Bank, and Wachovia Bank--most of these banks are full - service institutions. With pride, Beverley informed Bob that Grove's niche was embedded in its

mission statement "it caters to the minority population that is underserved or not served at all by other financial institutions."

Bank's Performance

George told Bob that prior to the acquisition, several members of his management team thoroughly reviewed the financial history of Grove. He noted that Grove had experienced tell tale signs of a failing institution since 1995. All the profitability measures were signaling trouble ahead (Bob referred to the selected financial data furnished by Beverly). George proceeded to provide a more in-depth understanding of the banking industry. He stated that a bank's profitability, especially if it is a small institution and does not offer a full range of banking services, depends on the interest rate at which it borrows and lends money. One of the most telling entries in the bank's income statement was its net interest income (interest earned less interest paid). George referred to the selected financial data and noted that the bank reported a decline in net interest income each year since 1996 (the net interest income declined from \$2,123,000 in 1996 to \$1,080,000 in 1999). George's level of excitement rose the more he discussed his "crown jewel." He noted that it is perhaps more meaningful to compute the interest rate spread and the net interest margin (NIM). The interest rate spread is the spread between the interest rates paid and received by a bank. The NIM is computed by dividing the net interest income by total assets of a bank. George wanted to further clarify his analysis therefore he informed Bob that High and low NIM by itself is not necessarily an indication of either the strength or the weakness of a bank. A bank can inflate its NIM by simply extending more risky loans, which carry high interest rates. George noted that even monopoly power might allow a bank to increase the spread between interest paid and interest charged. NIM can also be favorably affected if a bank can provide exceptional services and thereby attract new customers and keep their customers happy with a lower interest rate on their deposits. However, he quickly surmised that most of these factors could not explain the steady decline in NIM for this institution (NIM for Grove decreased from 4.62% in 1996 to 3.45% in 1999). The financial data reveals more the bank extended questionable loans during this period without an increase in the interest rate spread.

Beverly added that another noticeable trend in the banking industry has been a steady increase in non-interest income derived primarily from fees, service charges and other operating income. Some banks have managed to offset a decline in net interest income by increasing fees and service charges. Beverly noted that in case of Grove, however, the non-interest income had shrunk from \$1,020,000 in 1996 to \$599,000 in 1999. With a sigh, she concluded that it was not surprising that the bottom line of this institution had also suffered: the return on assets decreased from .36 % in 1996 to -5.65 % in 1999 and the return on equity declined from 4.44% in 1995 to -542.33% in 1999. (See selected financial data)

George noted that part of the explanation for the dismal performance of Grove could be found in its credit risk history. He stated that two different indicators could assess the credit risk of a bank: (1) the ratio of charge offs as a percent of total loans and (2) the ratio of non-performing loans to total loans. Whereas the former shows what has happened in the past, the latter is forward looking and sheds light on what might happen in the future. Grove's percentage of non-performing loans had increased from 0.74 percent in 1996 to a whopping 7.21% in 1999.

George noted that the continued deterioration of the bank's bottom line adversely affected its capital adequacy ratio (the ratio of equity capital to total assets). A large equity capital base was needed to reduce the risk of bankruptcy because equity capital can be used to absorb a possible loss in assets without defaulting on capital. George emphatically stated that an inadequate capital ratio was one of the most important factors in a bank's failure. Grove's equity capital declined from \$3,760,000 in 1996 to a bare \$326,000 in 1999. However, the capital adequacy ratio must be considered in conjunction with investment and credit risks. A bank that engages in risky investments must carry higher capital equity than one with a more conservative investment portfolio. Grove's capital adequacy ratio was indeed shrinking at a time when the ratio of non-performing loans to total loans was rising.

Performance Improvement Strategies

George reiterated that the bank was acquired by an Atlanta based financial institution in March 2000 and he took the lead in this effort. He stated that the infusion of cash, new management and a new Board of Directors provided instant stability to Grove National Bank. The Board developed key strategies to ensure the success and profitability of the bank. He noted that the Board agreed that the most important step was to remove the Consent Decree Order placed on the bank by the Office of the Comptroller of the Currency (OCC). This order limits the ability of the bank to perform vital functions related to its profitability. To that end, the Board developed an Action Implementation Plan designed to fulfill all requirements of the order. Even though it was tedious, George stated that a report of compliance was also provided to the OCC on a monthly basis. The plan included status reports on the bank's capital levels, competency of management, and various issues related to loan and asset quality. George stated that proactive policies implemented by the Board and management resulted in the order's termination in the second quarter of 2001.

George also noted that the Board approved aggressive steps to improve the quality of its current loan portfolio and criticized assets including hiring additional staff to assist in collection activities. The bank has been successful in its efforts to restructure or relieve itself of troubled loans. The Board also approved a new independent loan review company to assist in the review of its loan portfolio.

George's staff began a thorough review of the bank's financial statements. This revealed a number of general ledger accounts that were out of balance, the effect of which was inaccurate

financial data. The Board took additional steps by approving new internal and external auditors, as well as identifying roles and responsibilities of key bank personnel. In addition, a new Senior Vice President was hired to manage the financial reporting aspects of the bank.

The Board established a new loan committee and set individual lending guidelines. George noted that more attention was also focused on loan quality and support for each loan application. The bank has hired and continues to seek loan officers that will assist the bank in further penetrating the markets in which it serves. George also reiterated and Beverly agreed that the bank continues its commitment to the current customer base and seeks to expand and diversify its product lines in an effort to attract new customers.

A Business Development Committee was established to assess the current markets (i.e. Fayetteville, High Point, and Atlanta) and develop strategies to increase market share. A new ad firm was hired to assist in the development of an overall market and advertising strategy. In addition, George also noted that the corporate office is currently undergoing major renovations.

A new branch was opened at a Harris Teeter location in Fayetteville and the bank's Atlanta office was relocated to new facilities to accommodate its growth. The Board continues to evaluate the feasibility of opening additional offices. The bank also replaced its current software vendor and added new customer products.

George stated that the commitment of the Board, management and staff has resulted in a steady improvement in the banks' performance. He noted that a comparison of the critical ratios in 2000 to the same ratios for the last several years show that there has been a definite break in the trend.

Of equal interest to the staff member was the fact that NIM was declining in tandem with the return on assets and equity. He wanted to investigate the relationship between NIM and return on assets and equity. Several issues were raised including: (1) was NIM the sole determinant of return on assets and (2) did the decline in return on assets caused a flight of capital from the bank? It was noted that every critical ratio (except equity capital ratio) showed a marked improvement subsequent to the bank's acquisition. The staff wanted to investigate which of the measures adopted by the new management were directly instrumental in reversing the failing financial health of the bank.

SELECTED FINANCIAL DATA

| December 31, | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 |
|---|--------|---------|--------|--------|--------|--------|
| (In Thousands, Except per Share Amounts) | | | | | | |
| Financial Condition Data | | | | | | |
| Total Assets | 56,830 | 31,315 | 40,790 | 45,522 | 45,957 | 46,309 |
| Investments | 7,956 | 9,628 | 15,336 | 12,794 | 11,069 | 13,994 |
| Loan receivables, net | 36,994 | 17,515 | 19,660 | 26,172 | 28,024 | 25,753 |
| Non-performing loans | 1,052 | 2,258 | 2,811 | 2,196 | 342 | 93 |
| Deposits | 48,969 | 30,568 | 38,134 | 41,741 | 41,658 | 41,896 |
| Stockholders' equity* | 6,033 | 326 | 2,285 | 3,084 | 3,760 | 3,672 |
| Book value per share | 6.87 | 0.70 | 4.95 | 6.69 | 8.15 | 7.96 |
| Year Ended December 31, | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 |
| (In Thousands, Except per Share Amounts) | | | | | | |
| Operating Data: | | | | | | |
| Int. & dividend income | 4,265 | 2,144 | 2,886 | 3,378 | 3,456 | 3,063 |
| Interest expense | 1,210 | 1,064 | 1,206 | 1,336 | 1,333 | 1,152 |
| Net interest income | 3,055 | 1,080 | 1,680 | 2,042 | 2,123 | 1,911 |
| Provision for loan losses | 30 | 617 | 750 | 578 | 578 | 105 |
| Noninterest income | 1,800 | 599 | 765 | 1,130 | 1,020 | 734 |
| Noninterest expense | 4,308 | 2,830 | 2,501 | 3,252 | 2,326 | 1,946 |
| Income(loss) before taxes | 517 | (1,768) | (806) | (658) | 239 | 594 |
| Inc. tax expense(credit) | - | - | - | - | 72 | 210 |
| Net income (loss) | 517 | (1,768) | (806) | (658) | 167 | 384 |
| Basic earnings (loss) per share | 0.59 | (3.80) | (1.75) | (1.30) | 0.36 | 0.86 |
| *Changes in Stockholders' Equity reflect net income (loss) for the year plus adjustments to Common Stock and Paid in Capital. | | | | | | |

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THE SEDUCTION OF ARTHUR THOMPSON: AN INSTRUCTIONAL CASE ON ETHICS IN THE ACCOUNTING WORKPLACE

Richard T. Henage, Utah Valley State College

CASE DESCRIPTION

This case focuses on ethics in the workplace - principally on the types of ethical issues facing an employee dealing with the financial management of a business. It was designed to help the student realize the implications of decisions regarding ethics and to recognize the difference between legal issues and ethical issues. This case is not highly technical and would be appropriate for inclusion in an introductory accounting or finance course. The case was designed to be presented over a single one-hour class period with only minimal preparation outside of class.

CASE SYNOPSIS

The myriad of news stories that have dominated the financial press at the outset of the 21st century have demonstrated, more than ever, the need for higher ethical standards among professional accountants. Unfortunately, teaching ethics in the classroom does not always translate into higher ethics among graduates. Barriers to adopting classroom ethics in the marketplace center on two facts: 1) that real-world pressures influence ethical decisions; and 2) that most ethical dilemmas involve the gradual "graying" of standards rather than the radical overthrow of such standards.

This case is a portrayal of a real-world situation where the main character was subjected to a series of ever-increasing ethical choices, while faced with severe financial consequences. Although the names and setting have been changed, the presented events mirror the challenges faced by the main character: Arthur Thompson. The case allows students to place themselves in the position of the main character, to make decisions, and to weigh the consequences of their actions. Each of the three ethical dilemmas faced by the main character is followed by instructional questions that help the students identify the differences between legal and ethical issues, create a framework for making ethical decisions, and recognize the impact of competing motivations.

BACKGROUND

Arthur Thompson (Artie) graduated from a prominent college in southern California with a degree in Accounting in 1992. He began his career with the audit staff of a Big-5 public accounting

firm in the Los Angeles office, and was promoted to manager in just 4 years. His primary expertise was in the transportation industry. Artie married his college girlfriend in 1993 and they had their first child in 1995. Artie was heavily involved in community and church service and was well respected in professional circles.

In 1999, an executive recruiter approached Artie with a job opportunity as the Controller and Chief Financial Officer of a transportation firm in the San Francisco bay area. At this point in time, Artie's wife, Nina, was expecting their third child. After discussing the potential of the job with Nina, Artie decided to fly to San Francisco for the interview.

On September 6, 1999, Artie had his first interview with Instant Express (IEX), a Bay Area courier firm. The firm was the largest courier service in the San Francisco/Oakland/San Jose metropolitan area. The business had 230 drivers that ran both scheduled and "hot shot" deliveries. Unlike major national couriers (such as FedEx, DHL and Airborne), Instant Express offered same day deliveries, a package could be picked up and delivered within two hours to almost any location in the Bay Area. Their primary customers were law offices, banks and title companies. In addition to document and small package deliveries, IEX also had approximately 40% of their fleet based in small trucks that could deliver packages from 5 to 150 pounds.

Rob Larsen, the sole proprietor, began the business with his own vehicle in 1975. By the early 1980's, he had built the company to a fleet of nearly 30 drivers working primarily in San Francisco. Each driver was an independent contractor, supplying his or her own vehicles and delivery expenses. Rob supplied the marketing, dispatching, billing and collections in return for 40% of the gross revenue. In 1987, Rob bought out a major competitor and expanded the fleet to nearly 75 vehicles. This made IEX the second largest courier in the Bay Area.

In early 1999, the owner of Vanguard Courier put his business up for sale. Vanguard was the largest Bay Area courier service and covered a much larger geographic area than Instant Express had serviced. Vanguard had a strong presence in both Oakland and the Silicon Valley, whereas IEX had nearly 75% of its operations in San Francisco proper. Rob developed an expansion business plan and presented it to a local venture capital firm. Using IEX and the newly acquired assets as capital, Rob was able to obtain \$10 million in capital for both the acquisition and working capital. The deal had closed on July 16, 1999.

As part of the expansion, it became obvious that IEX needed a more sophisticated accounting department and Rob determined to hire a CFO. Prior to that time, Rob's sister-in-law, Diane, who had a staff of nearly 12 bookkeepers, had managed the accounting. Additionally, IEX had a small computer department that oversaw the dispatch and accounting systems. Vanguard also had a large accounting and computer staff, and it quickly became obvious that the administrative functions must be combined and streamlined.

As a result of the job interview, Rob offered Artie the position of CFO and Controller. The position carried a salary that was almost double what Artie was getting in LA. Plus, Artie would be given free reign in designing the administrative operations of the company: accounting, treasury,

marketing, and legal. Artie would also oversee moving the consolidated operations into a new facility.

Artie returned to LA and discussed the opportunity with Nina. Artie was needed in San Francisco by October 1 (or earlier, if possible). Artie and Nina decided that Artie would take the job. Artie would travel to San Francisco and find a home for their young family and Nina would remain in LA until the home sold and she delivered her baby. Nina's mother lived nearby and could provide emotional support and help with the two small children during this period.

Artie arrived in San Francisco in late September and began working at the new job. He spent the majority of his time organizing the staff in the new office building. He had to pare down the administrative and support staff from the nearly 65 employees from the two separate companies to a combined 38 employees. During this transition time, Diane continued to run the accounting for IEX with occasional advice and assistance from Artie.

THE FIRST DILEMMA

Artie spent his weekends in LA and worked on finding a house in the evenings (when not trying to get ahead at the office). Fortunately, Nina delivered the baby, a little boy, on a Saturday evening and Artie was able to be with her at the hospital. Artie and Nina accepted an offer on their house in LA early November. Artie located a very nice home in San Francisco, which they barely qualified for with his new salary and with the equity from their home in southern California. Artie and Nina relocated permanently to San Francisco in early January.

IEX suffered some minor setbacks in the early months of 2000. With a readjustment of the market for Internet and high-tech firms, the rapid growth in Silicon Valley and the Bay Area suddenly and unexpectedly come to a halt. Home prices, which had risen sharply over the prior years, suddenly began to drop. Unemployment rose sharply. In general, the economic situation was rapidly deteriorating. The demand for IEX services fell with the economy, and several of their primary customers eventually closed their doors. Artie was feeling pretty lucky that he had accepted his job at the height of the economy and that he was not seeking a job in the current economy.

By mid-March, Artie had completed the consolidation of administrative functions of the two firms and was proceeding well with the implementation of the new computer system. Artie determined to become more involved in the day-to-day accounting functions. As one of his first steps, he determined to perform his own mini-audit of the books.

During this process, Artie reviewed the bank reconciliations for the past several months. In the course of this review, he noticed for the first time that less than 1% of the total deposits into the bank were in the form of cash. In contrast, his observations of drivers indicated that they would frequently return large amounts of cash from COD deliveries. Artie was immediately suspicious and feared that some type of theft or fraud might be occurring. He quietly questioned four of the drivers and found that they had turned in a combined \$1,200 in cash over the past month. The total cash

deposit for all 230 drivers was less than \$3,000. The drivers had been instructed to turn all cash over to Diane, who prepared the deposits.

Artie was concerned in approaching Rob, the owner, with the news that his sister-in-law might be embezzling thousands of dollars every month. But he was also concerned that any further investigations might alert Diane. With great trepidation, Artie approached Rob with his information. He expressed his certainty that large amounts of cash, perhaps as much as \$20,000-30,000 per month was being siphoned out of the company and requested permission to further investigate the matter so the exact magnitude of the theft could be determined.

To his surprise, Rob replied to the Artie's concerns with the comment: "Don't worry about the cash. It isn't any of your business. Diane will continue to handle the deposits and she reports directly to me on the matter. Give her your complete trust and cooperation."

DISCUSSION QUESTIONS

1. Why might Rob have such a casual attitude toward the loss of thousands of dollars of cash each month? What might be the purpose for not depositing the funds?
2. Does Artie have any concrete evidence of any type of fraud being committed, or is it only speculation at this point? Should he investigate to gather more information when he has been instructed by his boss to not do so?
3. If a fraud is being committed, does Artie share in any potential criminal liability by not reporting the issue? Would there be any probable legal consequences for Artie if he does nothing at this point?
4. What would be the consequences to Artie if he acts on the information he has gathered? What effect, particularly given the current economic situation, would such action have on his career, his family, and his personal financial condition?
5. What is the best course of action for Artie from a purely ethical standard? To whom does he owe his primary allegiance? His boss? His family? The government? His coworkers? How could his actions affect each?
6. If you were in Artie's position, what action would you take?

THE NEXT CHALLENGE

As Artie weighed his choices, he determined that the smartest course of action for his situation would be to continue his job at IEX, but to begin looking for another position. Artie was worried that a company that would knowingly perpetuate a fraud in one area might potentially be involved in other unethical activities. He did not want to be a part of such actions and determined to leave.

As he considered the consequences of immediately resigning his position, he had to recognize that the immediate sale of his home would wipe out nearly \$75,000 of equity. Additionally, in the current market, the sale of the home might require 6-12 months. Given his current house payments, if a new job was not quickly located at a comparable salary, he might face financial failure in less than six months. His professional contacts in the Bay Area were limited and he and his wife lacked the family support they had in southern California. His ability to provide financially for his wife and three small children weighed heavily on his mind.

In discussing employment opportunities with the recruiter who had helped Artie obtain his job, Artie learned that the market was extremely slow at the moment and that it might take months to find a position with comparable responsibility and compensation. The recruiter was also concerned because the recruiter would forfeit a portion of his commission from IEX if Artie failed to work in the position for one full year.

Artie's final decision was to continue in his job at IEX until a new position at a similar level could be obtained. Although looking for a new job helped soothe Artie's conscience, deep down he recognized that he would most likely not be given a significant number of promising leads over the upcoming six months. This was particularly apparent when considering that the only individual ferreting out leads was a recruiter who had a financial incentive to not find Artie a new position until after Artie had completed his first year with IEX in September.

In early June, Artie finished the implementation of the new computer system. One of the first reports he printed with the new system was the drivers' commission listing for the month of May. The system had the ability to calculate the commissions from every run, generate the report, and print the paychecks for driver. The company kept the actual rates charged its customers confidential from the drivers in fear that the drivers might try to compete directly with IEX if they knew the actual rates. Despite this limitation, the drivers tended to be happy with the compensation program.

When Artie took the printout to Rob, Rob was visibly upset by the report. He expressed his concerns on two fronts. "First, we do not have enough cash to pay this full amount to the drivers. Second, over the years as our rates have increased, we have paid the drivers a lower and lower percentage of the total revenue. Over the last two years, we have not paid our drivers the full amount promised in their contracts. If we were to suddenly increase the rates back to the original contract, it might cause problems with the drivers. They would start expecting higher returns in the future. The drivers are happy with their pay as is, and if we increase that pay to the full 60% they were originally promised, we might have to shut our doors. Thus, we would all be out of work and no one would get paid."

Rob took the report from Artie and systematically reduced all of the drivers pay by 10%-15% of the total. He then instructed Artie to change the percentages in the computer from the contractual 60% commission to downward-adjusted 52%.

DISCUSSION QUESTIONS

1. What is the legal liability of Rob Larsen and IEX? Is this a matter that could result in criminal charges or only a civil lawsuit?
2. Assuming that Artie follows Rob's directions, what would be his legal liability? Would he be susceptible to criminal prosecution? Is he likely to become personally liable in a civil lawsuit?
3. Assuming that Artie refuses to assist in programming the system to cheat the drivers, what is the likely outcome of the decision? Are the drivers better off from this decision?
4. Assuming that Artie informs the drivers that they are being cheated in the calculation of their pay, what is the most likely outcome? What would happen to Artie? What would happen to IEX and Rob Larsen? What would happen to the drivers?
5. What is the best ethical decision for Artie to make in this situation? If you are in Artie's position, what would you do? Why?

THE LAST STRAW

After considering all of the alternatives, Artie decided to follow manager's orders and set the commission structure, as Rob demanded. The decision left Artie extremely unsettled and he determined to find another job as quickly as possible. He informed the executive recruiter of his intentions to quit and demanded that the recruiter help him locate another position at the earliest possible date, even if the new position carried a cut in pay or a reduction of responsibility. He recognized that he may no longer be capable of affording his current home with a new job, but at least he would be able to provide for his wife and three children.

In late June, Artie is served with a subpoena from the California Board of Labor. With the downturn in the economy, IEX was forced to reduce its number of drivers by nearly 15%. As a result, several drivers have contended that they were not independent contractors, but rather employees of IEX, and as such, were owed unemployment benefits. If the Labor Board determines that the drivers were indeed employees, not only would they be eligible for unemployment benefits, but also IEX could end up having to pay back unemployment taxes and penalties amounting to several million dollars.

Artie studies the California Labor Laws and determines that IEX fails to meet several key requirements to have the drivers classified as independent contractors rather than employees. First, IEX advertises in the employment section for drivers, provides on-the-job training, and provides every driver with rules of conduct. Second, the drivers, by their contracts, are not allowed to perform delivery services for any other delivery service or customer. Third, the contract is open ended with no specified date of termination. Fourth, the services provided by the driver are identical

to the main function of the company. These four issues would most likely combine to result in favor of the drivers and against IEX.

On the date of the hearing in mid-August, Rob corners Artie as he is leaving the building. He takes Artie to the side and asks: "When you testify before the Labor Board, you're not going to get any sudden pangs of honesty, are you?"

DISCUSSION QUESTIONS

1. What are Artie's legal responsibilities when he testifies before the Labor Board? What are his ethical responsibilities?
2. What are the possible alternatives Artie could select in this situation?
3. What are the possible outcomes if Artie lies before the Labor Board?
4. What are the possible outcomes if Artie tells the truth to the Labor Board?
5. If you were in Artie's position, what would you do? Why?

CASE CONCLUSION

After his conversation with Rob, Artie decided that his only alternative was to be completely honest and open with the Labor Board. He informed Rob that: "When I am under oath, I will have to respond truthfully to any questions asked."

Rob responded with an analogy. "Suppose that the two of us are stuck in the middle of the ocean. We have to get to shore. You have two choices. One, you can row along side me. Two, you can get out of the boat so I don't have to pull your dead weight. Now, which is it?"

Artie informed Rob that his only choice at this point "is to get out of the boat." Artie immediately resigned his position with IEX. Although the next few months were financially difficult for Artie, he knew that there were no other acceptable alternatives for him. Because he had already begun the process of looking for a job, he was able to secure another position with only a small pay reduction within six weeks of leaving IEX.

When discussing the case with the author, Artie made a very telling remark about the trials he had endured. He said: "I have always considered myself to be a highly ethical person. I always told myself that if and when I was faced with a difficult ethical decision, I would always take the 'high road'. In my involvement with family, church and community, I have always reaffirmed my commitment to living the highest possible standards. What really hurts is that my actions were such that Rob felt he could request almost any unethical or dishonest behavior from me and that I would comply. The very fact that he was able to say, 'You're not going to get any sudden pangs of honesty, are you?' indicates that he had, from my past behavior, determined that my standards were low, if not nonexistent."

POWER PLAY IN A BUYER-SELLER AGREEMENT: A CASE OF EXTREME COMPETITION

Paul Esqueda, Penn State Berks-Lehigh Valley College
Denise T. Ogden, Penn State Berks-Lehigh Valley College

CASE DESCRIPTION

The primary subject matter of the case concerns power asymmetries in negotiation. Secondary issues examined include the effect of customer demands on price, time constraints involved in the negotiation and the contrast between distributive and integrative negotiation strategies. The case has a difficulty level of four. The case is expected to be taught in two hours with additional student preparation time of 30-45 minutes. Student preparation may be done inside or outside of the classroom. The case could be used in a strategy course, or as part of a conflict/negotiation module of a general course in business management.

CASE SYNOPSIS

Set in the context of a renegotiation of a sale agreement for equipment, this negotiation exercise explores the dynamics of two companies with power asymmetries. The role play activity highlights the difficulties of negotiating when there are changes occurring in the external and competitive environment. Several other concepts are illustrated including the effect of customer demands on price, time constraints involved in the negotiation and the contrast between distributive and integrative negotiation strategies.

CASE INFORMATION

Fresh Water Mining Company (FWMC)

Fresh Water Mining Company (FWMC) is one of the world's largest mining and mineral processing companies based in Brazil, South America with operations and sales representatives in Europe, Africa, Middle East, Asia North, Central and South America. The company started in 1903 under a different name and in 1943 the name changed to Fresh Water Mining Company (FWMC). Fresh Water is a world leader in the production of iron ore, iron pellets, manganese, Ferro-alloys,

gold, bauxite, kaolin, aluminum and alumina. The company reported gross revenues of about US\$5.5 billion last year. In addition, FWMC is one of the largest logistics operators in South America with an extensive network of railroads, ports and terminals in the region with total assets approximately US\$11.5 billion according to the last financial report.

Major investments of FWMC are focused on the exploitation of new mineral business and modern and innovative technologies through active research and development. It also devotes approximately US\$500 million a year in new equipment for the exploration, exploitation and characterization of a large variety of minerals.

Dutch Royal Fluorescence X-Ray B.V.

Dutch Royal Fluorescence X-Ray B.V. (Dutch X-Ray) is a manufacturer of X-ray equipment based in Holland. The company was part of a larger conglomerate of companies founded early in the twentieth century. Originally the company developed and manufactured electronic equipment. By 1950 the company had diversified into various areas including the design, manufacturing and commercialization of X-Ray machines. This last area became an independent organization with the name Dutch Royal Fluorescence X-Ray B.V. 10 years ago. Dutch X-Ray, as it is currently known, has sales world wide of €150 million annually (Euro (€) is the European Union currency which is roughly equivalent to US\$1.20). The Latin American Division has sales of about €6 million annually, half of which are annual sales to Brazil. In this last century, Dutch X-Ray has been a traditional supplier of scientific equipment to FWMC.

At the present time, FWMC has given approval to the purchase of €2 million worth of fluorescence X-ray equipment from Dutch Royal Fluorescence X-Ray B.V.

Competition

The main competition of Dutch X-Ray is Japanese X-Ray in Brazil. These two companies have about 40% of the world market each. The rest (20%) is distributed among the rest of X-Ray manufacturing companies dedicated mostly to the European and North American markets. In the past, Japanese X-Ray competed with Dutch X-Ray for the FWMC contract. Dutch X-Ray won the bid by offering a better price and a more attractive package of delivery and services than Japanese X-Ray. The differences between the two offers were not that large though (about €50.000 in price and about 2 weeks in delivery time).

The Setting

The offer presented by Royal X-Ray is summarized in the two tables (Table 1: Initial offer from Royal X-Ray; Table 2: Product description, proposed installation and delivery schedule shown

below. Payment conditions provide for 10% of total price upon placing the order, 20% upon delivery of the equipment on site and the rest should be paid upon complete installation and customer final approval of each set of units. These conditions were accepted and approved by FWMC and Royal X-Ray.

Table 1: Initial Offer from Royal X-Ray to FWMC

| Unit Description * | Unit Price (in €) | # of Units Ordered | Unit Price x # of Units Ordered |
|---|-------------------|--------------------|---------------------------------|
| Basic Desk Top Fluorescence X-Ray Equipment (MiniPal). | €60.000 | 5 | €300.000 |
| Medium Size Industrial Application Fluorescence X-Ray Spectrometer (Epsilon 5). | €100.000 | 7 | €700.000 |
| Advanced Full Size Fluorescence X-Ray Equipment (MagixPro). | €250.000 | 4 | €1.000.000 |
| Total | €2.000.000 | | |

*The unit price includes: expert advice for the definition of the basic features, manufacturing, delivery to the site and installation on site.

As both companies were getting ready to sign the agreement, Fresh Water called an urgent meeting with Dutch X-Ray to renegotiate terms of delivery. The two reasons provided for this meeting were 1. new political developments in the country require that the new equipment be delivered earlier and 2. There are changes requiring new delivery locations.

Brazilian Government

During this time period there was a change in Government in Brazil. The new Government has a more socialist orientation. The business community and the most important economic agents at large are expecting important changes regarding external debt payment, currency control and inflation. The meeting has been scheduled to take place in a few minutes.

| Table 2: Product Description, Proposed Installation and Delivery Schedule | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|--|--|
| All equipment is to be delivered and installed in the headquarters of Fresh Water Mining Company in Sao Paulo, Brazil | | | | | | | | | | | | | | | | | | | | | | | |
| Product | Description | | | | | | | | | | | | | | | | | | | | | | |
| MiniPal | Basic Desk Top Fluorescence X-Ray Equipment (stand alone equipment that does not need an air conditioned environment and can operate connected to a standard electricity outlet) | | | | | | | | | | | | | | | | | | | | | | |
| Epsilon 5 | Medium Size Industrial Application Fluorescence X-Ray Spectrometer (needs air conditioned environment and other minor items to operate) | | | | | | | | | | | | | | | | | | | | | | |
| MagixPro | Advanced Full Size Fluorescence X-Ray Equipment (this is a large piece of equipment that requires temperature controlled environment and a complex supporting infrastructure) | | | | | | | | | | | | | | | | | | | | | | |
| Equipment | Task | Weeks | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | |
| MiniPal | Definition of equipment features & customer approval | █ | | | | | | | | | | | | | | | | | | | | | |
| | Manufacturing | | | █ | | | | | | | | | | | | | | | | | | | |
| | Delivery | | | | | | | █ | | | | | | | | | | | | | | | |
| | Installation | | | | | | | | | | | █ | | | | | | | | | | | |
| Epsilon 5 | Definition of equipment features & customer approval | █ | | | | | | | | | | | | | | | | | | | | | |
| | Manufacturing | | | | | █ | | | | | | | | | | | | | | | | | |
| | Delivery | | | | | | | | | | | █ | | | | | | | | | | | |
| | Installation | | | | | | | | | | | | | | █ | | | | | | | | |
| MagixPro | Definition of equipment features & customer approval | █ | | | | | | | | | | | | | | | | | | | | | |
| | Manufacturing | | | | | █ | | | | | | | | | | | | | | | | | |
| | Delivery | | | | | | | | | | | | | | █ | | | | | | | | |
| | Installation | | | | | | | | | | | | | | | | | | | | █ | | |

**CONFIDENTIAL INSTRUCTIONS
FRESH WATER MINING COMPANY NEGOTIATING TEAM**

As you know we have been planning the acquisition of a large package of X-Ray Fluorescence Equipment for at least a year. It has been our policy to take advantage of our large scale of operations to get the best prices and conditions in most purchases. In this specific case, we managed to consolidate in one package all the current and future needs from all our operating units.

The process of selecting an equipment provider in our company is a two step process. First we call via newspaper advertisements for all potential providers to submit a prequalification package. In this step all information regarding the background of each potential provider is reviewed including the following:

- ◆ time in the business
- ◆ financial situation
- ◆ reports from other customers
- ◆ robustness of equipment
- ◆ reliability of equipment
- ◆ overall quality of equipment
- ◆ technical support capabilities
- ◆ any other information regarding their track record

In this particular bid two providers were considered: Dutch Royal Fluorescence X-Ray B.V and Japanese X-Ray Incorporated. The second step of the process involved giving each of the selected providers a detailed set of specifications of the equipment required so that they can prepare a financial offer. Four weeks ago, in an open bid to the public in our offices in Sao Paulo, both providers submitted their offers in sealed envelopes. Royal X-Ray was awarded the contract since they presented the best offer in terms of price and delivery time.

In the last three weeks there have been dramatic changes in the political and economical landscape of Brazil. A new leftist President won the election. There are strong rumors that the new Government is going to declare a moratorium on Brazil's external debt. This will have important consequences for the Brazilian economy related to inflation, devaluation and it may even generate a foreign currency exchange control. As in the past, our company has a clear policy to minimize our risk with all our operations in circumstances like this. For these reasons the President of Fresh Water is instructing your team to close this deal with Royal X-Ray today in this meeting with the following conditions:

| Delivery of all the equipment should be completed in 8 weeks. In case you need to be flexible we may accept up to 10 weeks maximum. | | |
|---|-------------------|-------------------|
| You will request changes in the equipment delivery sites as follows: | | |
| Product | Number to Deliver | Location |
| MiniPal | 2 | Santiago de Chile |
| MiniPal | 1 | Lima, Peru |
| Epsilon 5 | 2 | Santiago de Chile |
| Epsilon 5 | 2 | Lima, Peru |
| MagixPro | 1 | Santiago de Chile |
| MagixPro | 1 | Lima, Peru |

The price should be kept exactly the same as in the offer. If you need to be flexible, we are willing to pay up to a maximum 70% of the total price up front (i.e.- at the moment of placing the order which will be at the end of this meeting). You have flexibility to accept a moderate price increase but that will be used as a last resort.

As it is always the case in this business, this morning our President had a call from the President of Japanese X-Ray. He indicated to our President that they were willing to provide the equipment under any delivery time frame, anywhere in the world and that they were also willing to negotiate price to match the Royal X-Ray offer.

CONFIDENTIAL INSTRUCTIONS ROYAL X-RAY NEGOTIATING TEAM

Fresh Water Mining Company (FWMC) has called to arrange an urgent meeting regarding the recent equipment sale agreement. We are very suspicious of this meeting. It is not proper for a company like FWMC to call for this type of meeting to change the conditions of a sale. This sale was the result of a carefully planned process where FWMC imposed all the conditions from the very beginning. In addition, we have been awarded this bid because our offer has clear advantages over our competition in price and lead time to delivery.

We know that Brazil is going through a change of Government and the new President in his campaign had threatened to declare a moratorium on Brazil's external debt. Needless to say, this type

of policy has terrible consequences for our business in Brazil. Under such circumstances, we need to close this deal as soon as possible and your objective in this meeting is to do precisely that.

We understand FWMC wants to accelerate delivery of all the equipment. Your first task in this meeting will be to determine exactly when they want the equipment to be delivered and the locations of delivery. Our policy in Royal X-Ray is complete customer satisfaction and many times that means we have to be flexible to our customers and changes in their plans.

Price and Delivery Time

Our estimates indicate that for each week that we accelerate delivery the price should increase a minimum of 1%, which would include all additional costs. Because our equipment is manufactured to order, reducing delivery time implies rescheduling equipment manufacturing. This means that other customers will suffer, since FWMC equipment may be moved ahead of schedule.

Installation and Transportation

Installation is another issue. We have long term scheduling plans and our installation teams move all over the world. We will need to free some installation time from other customers in order to satisfy this customer. Transportation of equipment is another consideration. We have agreements with the airlines to schedule delivery well ahead of time. To change schedules at this time is going to produce additional transportation costs. Finally, there is the issue of changes in delivery site that again adds to our costs. We may have to recover the additional costs by increasing price.

Customer Satisfaction

Considering the importance of this customer we must do as much as possible to ensure their satisfaction. We are willing to keep the price unchanged if they pay us 90% of the total price quoted today at the moment of signing the placing of the order. That is a solution that we would be willing to accept as a last resort. If approved this situation improves our cash flow in this project significantly even though we may not be making a large profit in this deal.

Message from the President

The President of Royal X-Ray has conveyed the message to the negotiating team: you have all the flexibility you may need to close this deal. The guidelines expressed above are just that, guidelines. The President of the company trusts your judgment and your negotiating skills. An agreement today is the most important result.

A TALE OF TWO AIRLINES: WESTJET AND CANADA 3000

Bernadette Martin, University of Alberta
Dorothee J. Feils, University of Alberta
Grace C. Allen, Western Carolina University

CASE DESCRIPTION

The primary subject matter of this case is the financial and business risks of airlines. Secondary issues examined include impact of the financial structure and different growth strategies on financial risks of airlines. The case has a difficulty level of three and should be appropriate for undergraduate and graduate courses in financial and strategic management. The case is designed to be taught in one to two class hours, with three hours of outside preparation by students.

CASE SYNOPSIS

Over the last twenty years, all airlines, from large international carriers such as United Airlines, Swiss Air, and Air Canada to small short haul carriers such as WestJet have faced enormous risks in their operations. The Gulf War and the War in Iraq, high oil price volatility, the threat of terrorism, and lately SARS all have had a negative impact on airlines around the globe. Many airlines have seen losses, resulting in reduced capacity, large layoffs and quite frequently in bankruptcy. However, a few exceptional airlines have been able to stay profitable even in such a demanding business environment. In this case study we examine two Canadian airlines: WestJet and Canada 3000. The former is an example of an airline that is thriving despite the hostile business environment while the later is an example of an airline that failed shortly after September 11, 2001. Why did this happen? Both airlines were of similar size and initially followed a similar strategy. However, one succeeded, one did not. The major factors that explain WestJet's success and Canada 3000's failure are examined. While we use two Canadian airlines for the analysis, the lessons learned apply to airlines around the world.

COMPANY BACKGROUND

WESTJET

In February 1996, WestJet started operations with three airplanes out of Calgary, Canada. Clive Beddoe, its current president, and three other entrepreneurs saw a business opportunity in

operating a low cost air carrier in Canada. In the early 1990s, the airline industry was suffering from the recession and the effects of the Gulf War that led to high fuel costs and a decline in air travel. Almost every airline's profits were negatively affected except those of low cost carriers such as SouthWest Airlines in the United States; thus, WestJet's executives chose to follow SouthWest Airlines' successful business model. SouthWest Airlines, established in 1971, had pioneered the low fare, high-efficiency airline model, and is the most consistently profitable airline in the world. WestJet started operations out of Calgary servicing other western Canadian cities.

Within three years, WestJet was servicing most of its niche market of large western Canadian cities. In 1999, WestJet reached its critical goal of completing its first IPO, which allowed the firm to continue its expansion strategy of adding a plane and a route at a time. The IPO raised C\$30 million and allowed WestJet to purchase more aircrafts to add to their existing Boeing 737 aircrafts. With the additional aircraft WestJet was able to add eastern cities such as Hamilton and Ottawa to routes.

WestJet has since added many more Canadian cities to its routes and has turned itself into a national carrier. In both its prospectus and annual reports, WestJet stresses its desire to capture both leisure and business travelers during peak travel times. WestJet emphasizes everyday low fares, convenient schedules and 100% ticketless reservation system.

The small airline carrier expanded into a profitable national air carrier. Its growth has been achieved by using internal capital to increase size and market share. Expansion for WestJet has come slowly without veering away from its business model and niche markets. It continues to be recognized for its outstanding achievements in meeting the diverse goals of its travelers, employees, and shareholders.

CANADA 3000

Canada 3000 began its operations in 1988 and was once considered Canada's airline alternative to the two national carriers at the time: Canadian Airlines and Air Canada. Its main targets were large markets with low frequency, long haul routes, and its competitive advantage was based on low fares. By the end of its 1999 fiscal year, Canada 3000 had flown over 2.7 million passengers. In 2000, Canada 3000 completed an IPO, which netted Canada 3000 C\$28.3 million. Following the IPO, Canada 3000 acquired Royal Aviation Inc. and Canjet Airlines, both low cost alternatives to the national carriers Air Canada and Canadian Airlines. The acquisition of these two companies by Canada 3000 resulted in extra costs from rapid expansion, integrating operations and the costs associated with the addition of business class seats, airport lounges, frequent flier points, and costly reward points. The expansion strategy of Canada 3000 was to create additional market share as quickly as possible through acquisitions of existing airlines. This external form of expansion can result in costly financial and management problems. Growing too rapidly can put

strains on cash flow as well as management's ability to change and adapt at the same pace. See Table 1 for the costs and proposed benefits of the acquisitions.

| | Costs | Proposed Benefits |
|---------------------|--------------|---|
| CanJet | \$7 million | Airport slots, lease obligations on six 737s, some tax losses |
| Royal Aviation Inc. | \$84 million | Stronger presence in Eastern Canada, \$51.7 million in goodwill |

These costly acquisitions caused Canada 3000 to suffer tremendous losses and the airline was not able to absorb the additional strain put on airlines by the September 11, 2001 terrorist attack. According to the International Civil Aviation Authority worldwide air travel fell 6 percent as a result of the attack and 2001 is considered one of the worst financial years in commercial aviation history. By November of that same year, Canada 3000 filed for bankruptcy protection and was subsequently dissolved. The only two significant Canadian domestic airlines left were Air Canada (which bought Canadian Airlines) and WestJet.

BUSINESS STRATEGY

WESTJET

According to WestJet Airlines, its business is founded on delivering low fare airline service to stimulate the use of air travel within its markets. In order to offer a low fare airline service and remain profitable, WestJet operates within a low cost airline structure. Being the lowest cost operator in the market is but one of seven key elements found in WestJet's business strategy (WestJet Airlines Prospectus, 1999).

- ◆ Be the lowest cost operator in the market
- ◆ Create demand by delivering the product at the lowest possible fare
- ◆ Specialize in short haul, point to point, non stop service
- ◆ Specialize in simple, single class of low fare service
- ◆ Operate an all jet fleet
- ◆ Promote WestJet's fun, friendly image
- ◆ Enhance operating results by maintaining stringent financial controls and conservative financial management

WestJet's first key element is further broken down into four principles:

- ◆ Specialize in a single type of aircraft – the Boeing 737
- ◆ Recruit, train, motivate, and reward service-oriented personnel through productivity and profit-based performance incentives
- ◆ Operate on a ticketless travel basis (seats are sold and paid for at time of booking)
- ◆ Maximize aircraft utilization

By specializing in one single type of aircraft, WestJet realizes bulk purchasing efficiencies and is able to minimize the costs associated with employee training and maintenance programs. The Boeing 737 is the best selling jetliner in the world. As a result, management believes that there should be ample aircrafts and parts available well into the foreseeable future. These four elements help explain WestJet's ability to remain the lowest unit cost provider of scheduled air service generating an increase in passenger traffic and thus allowing WestJet to consecutively earn profits even during times of commercial distress. Included in WestJet's business objectives are future growth opportunities, which are addressed in the corporation's growth strategies (WestJet Airlines Prospectus, 1999):

- ◆ The frequency of service on existing and recently-announced routes.
- ◆ Adding new routes
- ◆ Continuing to develop charter opportunities
- ◆ Initiating scheduled service to and from the U.S.

WestJet is constantly looking for profitable routes to add to their existing destinations. Aside from their eastern expansion into London, Ontario and Montreal, Quebec, the airline added eight new aircrafts during 2002. By not straying from their business and future growth strategies, WestJet plans to continue to meet their niche market's expectations of offering a low price, a differentiated route design, and friendly jet service.

CANADA 3000

According to Canada 3000's 2001 Annual Report its strategies consisted of using fuel surcharges, operating in multiple markets, such as the summer domestic program and winter southern sun holiday package market, and the vertical integration of the retail travel and wholesale tour operations (pg. 23). Canada 3000 contributed its success to the following specific characteristics (Canada 3000 Annual Report 2001):

-
- ◆ Strategic focus on the “value for money” passenger
 - ◆ Flexibility in its balanced market segments
 - ◆ Established track record
 - ◆ Reliability and on-time performance history
 - ◆ Low cost structure
 - ◆ Broad distribution systems
 - ◆ Global presence

These characteristics along with various business strategies were reflected in Canada 3000's 28% increase in revenues for the airline's fiscal year ending April 30, 2001. The various strategies, which were implemented in 2000, include

- ◆ direct sales to the public
- ◆ “add-ons”, such as hotel packages to flights
- ◆ market risk reduction through diversification by operating across broad geographical areas in basically four different and counter seasonal markets

As an example of market risk reduction, Canada 3000 focused a large percentage of its capacity to the domestic Canadian and European flight market during the summer. Once market demand changed, as a result of the season, the company shifted its focus. Namely, in winter Canadians like to fly to warmer destinations in the South.

INITIAL PUBLIC OFFERING

WESTJET

On June 28, 1999, WestJet Airlines filed their initial public offering of 2.5 million shares for \$10 per common share for a total of \$25 million (not including underwriting costs). At the time of the IPO, WestJet operated 13 Boeing 737's, offered 511 short haul flights per week servicing 11 destinations, and by the end of 1999, was carrying over 1.6 million passengers per year. In the prospectus, WestJet announced that net proceeds will be use to purchase additional aircrafts (approximately \$22 million worth of aircraft), construction of facilities, and other corporate objectives. Before the IPO, the corporation had about 24 million shares outstanding and due to the limited number of years in the airline industry, investors had to rely on the WestJet's management team's ability to run the company profitably. This is true for all IPO's due to the fact that these companies have a limited track record. WestJet specifically stated in the prospectus that future success depended on the Corporation's ability to stimulate air traffic in existing markets and new markets and to maintain a low cost structure.

CANADA 3000

On July 13, 2000 Canada 3000 raised \$30 million before expensing any underwriting costs through an IPO of 3 million shares. Canada 3000 used the largest chunk of the IPO proceeds (\$10 million) to lease more aircrafts. Management had decided that the remaining capital would be used to expand various distribution channels, retire long-term debt, redeem shares of a subsidiary of Canada 3000, and expand domestic scheduled air service.

Following the IPO, Canada 3000 acquired Royal Aviation (March 20) and Canjet Airlines (May 1) in 2001. Management's stated purpose of the acquisitions was to leverage their investment infrastructure allowing them to reach, in two years, a strategic position in market presence. The acquisitions also would allow Canada 3000 to reach a larger market and thus increase its market share.

KEY OPERATING RATIOS

Three key operating ratios, RPM (revenue passenger mile), ASM (available seat mile), and ASL (average stage length) are used to assess airline carriers' profitability. Longer average stage length (air travel) will keep operating costs down by reducing the number of take offs and landings and thus using less fuel. Cost per available seat mile is also reduced when the length of air travel is extended. In table 2, the performance figures are reported for WestJet, Canada 3000 and Air Canada for 2001.

| | Avg. Stage Length (Miles) | Cost per Available Seat Mile | Revenue per Available Seat Mile | Spread |
|-------------|---------------------------|------------------------------|---------------------------------|-----------|
| WestJet | 458 | \$0.141 | \$0.160 | \$0.019 |
| Canada 3000 | N/A | \$0.114 | \$0.141 | \$0.027 |
| Air Canada | 1,217 | \$0.176 | \$0.148 | (\$0.028) |

(WestJet Annual Information Form, 2001, pg. 14)

WESTJET

At the time of WestJet's IPO, these three ratios were increasing while other carriers reported losses. From 1996 to 1999, WestJet's average stage length increased from the low 360's to a high 370 (for 2001 results see Table 2). The longer the ASL, the lower the costs for the airlines in terms of fuel cost. Operating Revenue ASM's is a measure of passenger traffic. In 1996 WestJet reported an operating revenue ASM of \$0.11 and for 2001 \$0.16. Revenue passenger mile is calculated by

multiplying the number of revenue passengers by the number of miles flown. By 1999, WestJet was earning \$0.20 per operating RPM as well as earning more dollars in terms of average passenger fare.

CANADA 3000

Canada 3000's yield per RPM (revenue passenger mile) increased from \$0.079 in 1997 to an industry high of \$0.122 by the end of 2000 (see Table 2). This measure indicates the average price paid by travelers was increasing thus Canada 3000's profitability also increased as a result. Canada 3000's load factor, which calculates passenger capacity utilization, maintained an average rate between 80 and 85 percent while that of WestJet's, whose performance in the airline industry was seen as one of the best, had a high of 70.8 percent by the end of their 1999 fiscal year. Revenue per passenger carried had increased within 5 years from \$148.50 to \$257.12 by the year 2000.

During 2001, Canada 3000 was able to obtain the lowest unit cost structure in the Canadian airline industry with a profitable spread of \$0.027. Canada 3000's operating costs in terms of cost per available seat mile were also one of the industry's lowest at \$0.114 for the year 2001 (Table 2). It should also be noted that large airline carriers with high cost structures such as Air Canada, lowered fares in order to compete effectively with WestJet and now bankrupt Canada 3000. Lower fares have deteriorated a large percentage of profits for all airline carriers.

FINANCIAL STATEMENTS

The Balance Sheets and Income Statements for 1999, 2000 and 2001 for WestJet and Canada 3000 are included in Tables 3 – 6. The differences in the two airlines are reflected in the liabilities and net income of each.

One of the largest expenses for airlines are fuel costs. Both Canada 3000 and WestJet faced over a 30% increases in the cost of fuel in 2001 which caused them to implement a fuel surcharge on flights helping to offset the continued high price of aviation. Aside from the costs and revenues of Canada 3000 and WestJet, the largest differentiating factor for the two airlines is that of aircraft ownership. At the end of fiscal 2001, WestJet owned 17 out of its 28 Boeing 737's versus only 5 owned by Canada 3000. Canada 3000's remaining 36 aircrafts were under operating leases which helps explain their large rental commitments and operating costs.

April 30 marks Canada 3000's fiscal year end and in 2001 the company had very impressive earnings. The airline reported a net income of \$18.1 million, up \$8.5 million or 89% over \$9.6 million in the previous year. Fully diluted earnings per share for the year were \$0.96, compared to \$0.66 for the prior year. September 11, 2001 marks the terrorist attack on the World Trade Center in the United States. It also marks a detrimental date in the stock market where all securities tumbled especially those of the airline industry. On that date, WestJet Airlines stock closed at \$11.33, down from \$11.67. Note that during September of 2001 the signs of recessions were also present. The excellent performance of Canada 3000 was only short lived. On November 8, 2001 Canada 3000 filed for bankruptcy protection from its shareholders and was subsequently delisted on April 2, 2002 from the Toronto Stock Exchange.

| | 2001 | 2000 | 1999 |
|--|---------|---------|---------|
| Assets | | | |
| Current Assets | 85,730 | 92,175 | 60,493 |
| Fixed Assets | 308,173 | 244,997 | 126,105 |
| Total Assets | 393,903 | 337,172 | 186,598 |
| Liabilities | | | |
| Current Liabilities | 95,095 | 90,780 | 49,926 |
| Long-Term Liabilities | 76,638 | 65,300 | 42,185 |
| Total Liabilities | 171,733 | 156,080 | 92,111 |
| Shareholders' Equity | 222,170 | 181,092 | 94,487 |
| Total Liabilities & Shareholders' Equity | 393,903 | 337,172 | 186,598 |

Source: WestJet Annual Reports

| | 2001 | 2000 | 1999 |
|--|---------|---------|---------|
| Assets | | | |
| Current Assets | 200,406 | 123,270 | 72,617 |
| Fixed Assets | 248,099 | 54,746 | 51,217 |
| Total Assets | 448,505 | 178,016 | 123,834 |
| Liabilities | | | |
| Current Liabilities | 273,965 | 144,659 | 100,173 |
| Long-Term Liabilities | 38,212 | 4,492 | 13,977 |
| Total Liabilities | 312,177 | 149,151 | 114,150 |
| Non-Controlling Interest | | 87 | 87 |
| Preferred Shares of Subsidiary | | 2,000 | 2,000 |
| Shareholders' Equity | 136,328 | 26,778 | 7,597 |
| Total Liabilities & Shareholders' Equity | 448,505 | 178,016 | 123,834 |

Source: Canada 3000 Annual Reports

**Table 5: WestJet Airlines Income Statement
(In thousands of Canadian dollars)**

| | 2001 | 2000 | 1999 |
|---------------------------|---------|---------|---------|
| Revenue | 478,393 | 332,519 | 203,574 |
| Expenses | 419,038 | 279,057 | 173,105 |
| Operating Contribution | 59,355 | 53,462 | 30,469 |
| Non-Operating Income | -1,076 | -756 | -1,121 |
| EBIT | 58279 | 52,706 | 29,348 |
| Provisions for Income Tax | 21,079 | 22,452 | 13,516 |
| Net Income for the year | 37,200 | 30,254 | 15,832 |

Source: WestJet Annual Reports

**Table 6: Canada 3000 Income Statement
(In thousands of Canadian dollars)**

| | 2001 | 2000 | 1999 |
|--|---------|---------|---------|
| Revenue | 963,704 | 753,587 | 519,969 |
| Expenses | 932,409 | 734,070 | 533,977 |
| Operating Contribution | 31,295 | 19,517 | -140,08 |
| Non-Operating Expenses | -5,112 | -1,677 | 0 |
| Income before gain on sale of investment | 0 | 964 | 0 |
| EBIT | 36,407 | 221,58 | -14,008 |
| Provisions for Income Tax | 17,522 | 12,277 | -4,666 |
| Net Income Before Amortization of Goodwill and non-controlling interest | 18885 | 9881 | -9342 |
| Amortization of Goodwill | 772 | 151 | |
| Share of non-controlling interest in Subsidiaries' activities | 37 | 180 | 144 |
| Net Income for the year | 18,076 | 9,550 | -9,486 |

Source: Canada 3000 Annual Reports

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THE CASE OF 'FOR A FEW DOLLARS MORE'

Rodger G. Holland, Georgia College and State University

Tom C. Moore, Georgia College and State University

CASE DESCRIPTION

This case starts with a nasty divorce, but shifts to an apparently amicable ending with the husband agreeing to give his wife all of the joint assets. But he ends up murdered the day before he intends to sign the papers. With the wife set to receive all of the assets through the divorce, and since there are no children and no will to provide alternative beneficiaries, the question becomes who benefits by his death.

CASE SYNOPSIS

The most obvious suspect in the highly publicized murder is the spouse, as is often the case. And the spouse appears to have the opportunity to commit the crime, and the means (a letter opener) is not an issue, but she has no apparent motive to commit the murder. A conviction is usually a function of means, motive, and opportunity. It takes an accountant to solve the case, convict the spouse, and implicate her most recent lover.

AT THE VILLA OF EDWARD MONEYSMAKER

Sam Sherlock, the lead homicide detective, was baffled. Having responded to a 911 call to the richest section of Hollywood, the detective had been one of the first to see Mr. Edward Moneymaker sprawled face down on his custom teak desk, a gold letter opener in his back. The room had been ransacked, but according to the maid, nothing appeared to be missing. The Detective could not find any signs of forced entry into the sprawling estate. Years of experience led him immediately to believe that the murderer must have been someone Moneymaker knew well---and Sam immediately expected Anita Moneymaker, Edward's estranged wife. But yesterday's Times gave him pause.

For months, the local newspapers had followed the couple's nasty divorce proceedings. Edward had made his fortune in an upstart internet company. With an initial investment of \$100,000, he had built his stock holdings in his company to \$100,000,000. Anita, a high school sweetheart who he married after college, had been beside him the entire way, although the divorce brought out that there had been a few "road-side stops" along the way. The couple had never had children, so their divorce focused on the division of marital assets---the largest one being the couple's holdings of their company's stock. Under the community property laws of California, the newspapers expected

a 50%-50% split, in spite of her numerous affairs. But, in yesterday's paper, a shocked gossip columnist had reported that Mr. Moneymaker had a change of heart. After dedicating his life to his company and philanthropy, Edward had suddenly decided to "give her everything," the newspaper quoted him as saying. "The money never brought me happiness. I just want to go to Tibet and meditate". Thus, Anita seemed to have no motive to kill Edward, but being thorough, Detective Sam decided to call Edward's attorney, Matt Locke.

Sam knew Matt well, and trusted him absolutely. Their conversation was something like this:

CONVERSATION WITH MATT LOCKE

"Matt, I'm at Edward Moneymaker's villa, and he's dead," began Sam.

Of course there was some small talk over the shock, and then Sam asked about the story in the paper.

"Yes, Sam, the story is absolutely true. Edward was resolute in his desire to give Anita everything---I spent days trying to talk him out of it, there was no way he was ever going to change his mind; he was just tired of the scandal and wanted out. He was going to come by and sign the final papers tomorrow."

Seeing no motive for Anita to kill Edward, Sam wondered who might benefit from his death. "Matt, who was the beneficiary under Edward's will?"

"Edward never had a will---he was too stubborn to ever make one. Heaven knows I tried. Since there are no children, Anita, will inherit his entire estate as his only next of kin. Even though I despise Anita because of the affairs, the bad publicity, and the pain she caused Edward, she would have gotten everything the next day. Most of the funds will be tied up until the probate process is complete, which may take months. As I see it, Anita would be much better off if Edward had lived to sign the papers."

BACK AT THE VILLA

As Detective Sherlock was hanging up the phone, Anita Moneymaker walked swiftly into the room. She wore a Gucci outfit, a Hermes scarf, and shoes that cost more than Sam made in a month. . [Her shopping trips were legendary. Paris, Milan, New York---a magazine reported that she once spent \$1,000,000 in one weekend for her summer wardrobe.] She certainly did not look like a mourning widow, nor did she act like one.

"Greetings Mrs. Moneymaker. I am sorry for your loss. I just finished talking with Mr. Mason, and he indicated that your messy divorce was working out for you."

"Yes, Detective," she replied coldly. "I am sure that darling Matt told you that I had no incentive to kill Edward, so if you do not mind I will just grab my purse and be on my way."

Given the newspaper reports of the affairs, and the tone in her voice, Sam wondered if she was having an affair with Matt, and that the story was cooked up to be a diversion---Matt was certainly smart enough to come up with such a plan, but Sam just could not believe that Matt would

do such a thing. Sam was relieved when his investigation down that avenue turned into a dead end street, but now he was without a suspect. For the first time in his life he, he had run out of leads.

A MEETING WITH THE MAYOR

Some weeks later, in Mayor Eastwood's Office.

"Sam, Police Chief King tells me that your investigation has stalled," began Mayor Eastwood.

"Yes, sir, I am afraid it has."

"Well, somebody sure killed Edward!" screamed Eastwood. "And the papers are screaming for someone's head. If you do not arrest someone, and I mean soon, they will have my head. And before they do that, I will have Chief King's head. And before that happens, he will have your head. Do I make myself clear!"

"Yes sir," both men replied, looking somewhat pale.

"Look. I don't mean to preach to you. But you gotta 'Hang 'em High' for the public to see that we are doing our job. If we cannot get a conviction, so what? That will be blamed on District Attorney Clark. Heck, she could lose even if the murderer was caught on tape!"

Both men chuckled, as they know that DA Clark was still wearing egg on her face for 'that case.'

"Men, just make an arrest. And I mean soon."

THE ARREST AND TRIAL

Although Sam hated to arrest someone without the three elements of the crime (motive, means, and opportunity) firmly fixed, he arrested Anita Moneymaker that afternoon.

Since the evidence was all circumstantial and there was no apparent motive, the defense attorney, John C. Rant, pushed for a speedy trial. The court date was within one month.

DA Clark was apprehensive about losing another big public trial, particularly since Anita appeared to have no motive. Her best strategy seemed to be to rehash the divorce trial and paint Anita Moneymaker as a greedy, cunning, unfaithful wife. Maybe, just maybe, if the jury hated Anita enough they would use "guilt by association" to convict her. "If she could do this, was it a big step to murder?" seemed to be her only strategy.

Although DA Clark had succeeded in making the jury dislike Anita, it looked like Anita was going to get off scott free; there just was no apparent motive. Then, just before DA Clark began her cross-examination, there was a pause as a dark haired man interrupted her and whispered something in her ear. The judge granted a short recess as they conversed. Then, confident for the first time, she began her cross-examination of Anita.

THE CROSS-EXAMINATION

“Mrs. Moneymaker, I have only a few simple questions for you. First, is it true that you and Edward were going through a messy divorce at the time of his death?”

“No,” came the sharp reply. “We had just reached a settlement agreement and I would have gotten everything the next day. The messy divorce was over.”

“I see,” muttered DA Clark.

“Tell me, did you have an affair with the tennis pro?”

“Yes. But,” she was interrupted

“And the golf pro,” continued DA Clark.

“Yes,” was Anita’s only reply.

“I see. So you admit to having extramarital relationships.”

“We had an ‘open’ marriage,” replied Anita. [This shocked the jurors and gallery since Edward was well known for his philanthropy and church related work. DA Clark chose to ignore her response.]

“One final question, Mrs. Moneymaker. Are you having an affair with Mr. Max Shelter, your accountant, at the current time?”

For the first time in the whole trial, Anita seemed nervous. She paused, not knowing whether to lie or admit this last affair. She decided that the jury already knew she was an adulterer, but not a liar, so it would be too risky to lie; she meekly replied, “Yes.”

“Thank you,” and DA Clark headed for her table.

THE RE-DIRECT

“Mr. Rant, any re-direct?” asked the judge

“Yes, Your Honor,” replied Mr. Rant.

“Anita, the DA has shown that you were at the villa the day of the crime and anyone could have picked up the letter-opener and killed poor Edward, so I will ask directly---Did you kill him?”

“No,” came the firm reply. “As has been testified to by Matt Locke, I had no incentive to kill him. I would have gotten everything before now.”

As Mr. Rant turned to walk back to the table, he confidently stated, “The defense rests, Your Honor.”

THE REBUTTAL WITNESS

With that DA Clark rose and announced to the court, “We have a rebuttal witness, Your Honor.”

After the ceremonial swearing in, DA Clark approached her rebuttal witness, the dark-haired gentleman.

“Dr. Tax Guru, what is your profession?”

“I am a Professor of Tax Accounting at USC,” came the reply.

“And do you know the defendant?”

“No, but I know her current lover, Mr. Max Shelter. He was a student of mine at USC,” replied Professor Guru.

Mr. Rant: “Your Honor. I fail to see the relevance of this testimony.”

“Ms. Clark,” the judge stated in an inquisitive tone.

“The relevance will become evident shortly, your honor.”

“Make it quick,” warned the judge.

After a mere ten minutes of testimony from Dr. Guru, the prosecution rested its case, and the case was handed over to the jury within an hour.

THE CONVICTION

Later that same day, the headlines read, “Anita Moneymaker Convicted of Murder and Loses Millions. Co-conspirator Indicted.” The first sentence began, “Professor nails Anita Moneymaker with his rebuttal testimony.”

What did Professor Guru tell the jury?

THE USE OF BUILDING MORATORIA TO CONTROL GROWTH IN RURAL COMMUNITIES

James L. Molloy, University of Wisconsin-Whitewater
Howard G. Olson, University of Wisconsin-Whitewater

CASE DESCRIPTION

The primary subject matter of this case concerns Business Law and Real Estate. Secondary issues examined include issues commonly experienced by local governments and real estate developers. The case is appropriate for junior level. The case is designed to be taught in two to three class hours and is expected to require three to five hours of outside preparation by students.

CASE SYNOPSIS

Today, many rapidly growing communities find that their infrastructure is not capable of keeping up with the pace of development. Imposing building moratoria gives communities time to plan without the pressure of impending growth, however their legality is often aggressively challenged. This case addresses the issue from a legal and public policy perspective and examines when, and under what circumstances, municipalities may legally employ this planning tool.

INTRODUCTION

The quality of life and financial health of many “small towns, USA” communities is currently in jeopardy. Across America, often to the dismay of existing residents, small towns and villages are being transformed into rapidly growing suburbs of nearby large urban areas. Real Estate developers and their attorneys appear before local government bodies, seeking approvals for housing developments, which often overwhelm the capacity of the municipalities’ infrastructure (e.g. schools, parks, roads, utilities, etc.), increased crime and traffic congestion, and inevitably, increased local property taxes! Local residents and elected officials often feel confused and helpless as they may not want the unplanned and rapid growth, but they do not know how to legally stop it, or at least slow down the rapid rate of growth.

This case introduces a powerful but controversial tool, the building moratorium, which may be used to fight back against real estate developers, trying to impose their will on communities which are not prepared for, or do not desire, rapid growth. Developers and their attorneys may challenge the legality of building moratoria, and recent court rulings are shifting the balance of power in these often bitter and costly struggles. Although the names have been changed, the factual situation of this case is of an actual small town located near a large and growing Midwestern city.

BACKGROUND INFORMATION

Bloomington is a city with a population of approximately 250,000, which is centrally located in a rapidly growing county. Major sectors include: the seat of State and County government, a major university, high-tech and biotech firms, and many financial and research related enterprises. Two regional retail-shopping areas are located on the western and eastern city limits. Two major business parks are located on major state highways on the west side of town and two large business parks are located on an interstate highway system which traverses the east side of the city.

Ingress into and egress out of Bloomington is facilitated by five, four-lane highway systems, which extend approximately 15-20 miles from the city into outlying areas. During the past 15 years, the small communities located along and at the end points of the four-lane highways have experienced the most severe development pressures and population growth. The nine communities located in the primary suburban ring surrounding Bloomington have responded to the explosive growth by: building expensive schools, expanding their utility capacities, increasing the size of police and fire departments, and where possible, annexing land from surrounding unincorporated townships in order to accommodate their growth.

The character and personality of the communities have changed to what is sometimes referred to as “Bedroom Communities”. Some of the long-term citizens have complained that their property taxes have skyrocketed, the congestion is terrible, crime rates are up, and that the people from the “big city” expect and demand the expensive “big city” services. One lifelong resident commented at a public hearing on the proposed new middle school, “We shouldn’t have listened to the real estate developers, they left town with the money and we’re left with the problems. The rich got richer and the community got poorer.”

Land prices near the primary suburban ring have escalated and governments in those communities have begun to adopt strict growth policies and enact ordinances which make it more difficult and expensive to develop in those areas. Two municipalities have enacted temporary building moratoria, which halted growth and annexation while they engaged in community planning and enacting new land use ordinances. Both moratoria have been challenged in court by developers who claim that the moratoria are not legally permissible. Referenda to build new schools are more frequently being defeated and the mood in the suburbs seems to be, enough is enough, pull up the drawbridge, no more growth!

ABOUT PLEASANT OAKS

Pleasant Oaks has a population of just over 3,000 people and is located in the secondary suburban ring approximately 20 miles from the Bloomington city limits. Linkage to Bloomington was upgraded with a four-lane highway two years ago. The community has recently made a large capital expenditure by building a new school. The school district has reported that it is experiencing serious budgetary problems as state school aids and enrollment has been less than what was projected.

The structure of Pleasant Oaks' government consists of: an elected Town Board Chair and four supervisors, five appointed planning committee members, and a three-member elected sewer district. The Town Board has the statutory authority to create ordinances, issue building permits, approve/disapprove subdivisions and land platting proposals, maintain town roads and perform most of the functions which cities and villages are statutorily authorized to perform.

The Town has an urban service area, which is served by municipal sewer and water, and a rural area, which is primarily agriculturally based with scattered, low-density, rural housing. Approximately 2,000 residents live in the urban service area, and large segments of land within this area are not yet developed. The undeveloped lands are zoned R-1 residential and provide the growth potential for which the residents of Pleasant Oaks generally feel it either does not want, or for which it is currently unprepared. An advisory comprehensive growth plan has been approved, but master planning has not been done and there are no schedules for permissible rates of growth in the Town's ordinances. The same building and subdivision ordinances, which the municipality has used for many years, have not been updated or revised and are still in place.

Developers are beginning to submit preliminary plats to local officials for subdivision approvals. These plats must be acted on by the Town Board within 90 days from the date of submittal, otherwise, they will, by statute, be assumed to be approved. When a preliminary plat is submitted by a developer, the Town Board's options are: reject the plat, approve the plat, or approve it with conditions and restrictions. Once the plat is approved, the developer may then proceed to connect the sewers and construct the roads and other improvements in accordance with the township's development ordinances.

Citizens are expressing concern that the rate of growth is too fast and that congestion and environmental destruction of the local lake will result from rapid growth. In addition, the local sewer plant is close to operating at its capacity. Violation of state natural resources effluent permits could result in large financial penalties to the sewer district, and ultimately, to Pleasant Oaks rate payers who live within the urban service area and are connected to the sewer.

The wastewater engineer who regulates the Prairie Oaks sewer plant wrote a letter to the Town Board, which discouraged any additional development within the urban service area. In his letter, the state wastewater engineer stated, "I certainly have no way of knowing when the plant would be at its true maximum capacity and be unable to meet permit limits. Any new development resulting in additional load to an already overloaded situation could move the status here from what I view as somewhat tenuous to critical. Currently, the plant is overloaded in some aspects and at, or near, capacity in other aspects."

The letter also identified the potential penalties in the event that Prairie Oaks violated its discharge permit, "A moratorium on new sewer construction will be imposed should the plant fail to meet permit limits more than three times in a 12-month period. The specifics of a sewer moratorium law are laid out in the natural resources administrative code. In addition to a moratorium, violations of the permit could result in primary environmental enforcement, making this community ineligible for state subsidized loans. While it is my understanding that some planning is ongoing, it appears that any upgraded or new plant will not be on line until sometime in the distant future, and there is no commitment to any construction schedule."

**REAL ESTATE DEVELOPMENT AND MUNICIPAL PLANNING:
ISSUES AND OPTIONS**

The dilemma facing the Pleasant Oaks Town Board is not dissimilar to the quandary that many small communities located near large urban centers are currently facing. The problems associated with rapid population growth are challenging small communities across the United States.

Many of these small towns and villages have not done any comprehensive planning for growth, their development and land use ordinances have not been updated for many years, and infrastructures such as: schools, waste water treatment plants and fire/police protection cannot accommodate growth at the rate at which it is occurring. Government officials in small municipalities are confused and unsure about this key question: Is it legally possible to stop all growth with a moratorium on development while the community studies, plans and determines its future?

The Pleasant Oaks Town Board would like to impose a temporary moratorium on all development within the Township's urban service area while it figures out what to do next. The Board is seeking advice in answering the following questions: 1. Does Pleasant Oaks have a solid legal foundation for stopping all development, and would such action be considered a regulatory "taking", requiring compensation to the landowners being temporarily denied the right to develop their property? 2. In the event that Pleasant Oaks does impose a temporary moratorium on development, what would the duration of the moratorium be, and is it necessary during the moratorium to develop a comprehensive land use plan, or is it sufficient to amend existing plans or ordinances? 3. Given that the sewer plant is at or near capacity, is there sufficient cause and legal basis to deny "any new development resulting in additional load to an already overloaded sewer?" Is it mandatory or reasonable that a community exceed the capacity of its infrastructure if the development may endanger the health and welfare of its citizens?

MUTUAL FUNDS' BEFORE- AND AFTER-TAX RETURNS: THE CASE OF TAX CLIENTELE

Richard Boes, Idaho State University
Peter J. Frischmann, Idaho State University
Abby Davidson, University of Denver

CASE DESCRIPTION

The primary subject matter of this case concerns the taxation of mutual funds. Secondary issues examined include the concept of tax clientele, basic differences in the taxation of capital gains and ordinary income, basic differences in the tax consequences of holding mutual funds versus individual stock portfolios, and the characteristics of tax-efficient mutual funds. The case has a difficulty level of four, most appropriate for senior level students. It could also be used at the advanced junior level or beginning graduate level. The case is designed to be taught in one class period (approximately 75 minutes) and is expected to require 3-5 hours of outside preparation by students depending upon whether the advanced requirements are assigned.

CASE SYNOPSIS

This case introduces students to the tax issues related to a major player in the investment and retirement savings market—mutual funds. It also emphasizes the importance of considering after-tax rates of return in the investment decision. The case examines the interplay between tax rules and mutual fund rates of return by comparing pre- and post-tax rates of return for eleven common mutual funds over a two-year period, 1999 - 2000, which includes both bull and bear markets. The concept of tax clientele is introduced, for without a specific clientele, meaningful after-tax rates of return cannot be computed. Furthermore, basic differences in the taxation of capital gains and ordinary income as well as basic differences in the tax consequences of holding funds versus individual stock portfolios are examined. After completing this case students should be able to (1) calculate pre- and post-tax mutual fund returns; (2) rank funds based on a tax client's tax rates and after-tax returns; (3) understand the long-term effect of taxes on mutual funds returns; (4) develop strategies to maximize the investor's after-tax return; and (5) identify characteristics of tax-efficient funds.

The case is appropriate for assignment in undergraduate accounting and finance classes as well as for an exercise in graduate classes studying tax strategy. Several possible teaching approaches can be used to present this case and to extend the basic requirements. In its simplest form, by covering just the basic requirements, the case is an introduction to mutual fund taxation

and mutual funds in general. It also serves as an exercise to enhance spreadsheet skills. In a more advanced setting, the basic requirements in the case can be used to motivate class discussion of the conceptual issues related to tax clientele and the importance of comparing after-tax returns in investment choice.

INTRODUCTION

Mutual funds have become an investment vehicle of choice for many investors seeking capital appreciation. With a net asset base of \$5 trillion, there are now more mutual funds for investors to choose from than there are securities registered on the major exchanges (Brooker 1998). Understanding how mutual fund investments are taxed prepares the individual for the next critical step, which is to understand the impact that taxes can have on the overall performance of their investment program. Effective tax planning can substantially boost the net returns received from mutual fund investments, particularly for those investors in high tax brackets.

To help investors assess mutual fund performance, the SEC recently required that mutual fund prospectuses report the impact of taxes and sale charges on fund returns. In spite of these new disclosure requirements, accountants and investment advisers should know how to calculate a fund's after-tax rate of return for the following reasons: (1) Many investors are unlikely to carefully read a fund prospectus and many investors may not understand the data presented, (2) not all taxpayers are in the top marginal tax rates which the new disclosures assume, and (3) not all investors have the same goals or objectives. Thus, advisers need to be able to help prospective clients, whatever their financial goals may be.

In this case, you will be placed in the role of a tax or financial advisor being approached by a couple seeking advice on mutual fund investing. The couple is risk neutral (for ease of calculation) and reasonably wealthy. We will assume a 40% marginal tax rate since the highest federal marginal tax rate for 1999 and 2000, the years from which the data were extracted was actually 39.6%. The couple already have a secure employee pension fund for retirement and their children have completed college and are beginning their own careers. For investment, the couple has selected the mutual funds noted in Exhibit 1. (Funds were selected for the case because they illustrated case learning objectives; selection is not an endorsement or criticism of any particular fund).

They have initially ranked these funds based on the distributions that have been made during the year and they are tempted to invest in funds that have made the highest distributions. You warn your client that distributions do not equate with the rates of return. Furthermore, you warn them that the impact of taxes must be considered since the funds' after-tax rates of returns may be substantially different from their pre-tax rates of returns. You begin by explaining a bit about mutual funds in general.

OVERVIEW OF THE TAXATION OF MUTUAL FUNDS

Mutual fund operations in general

Traditional mutual fund performance measures, such as the returns printed in the popular press, typically report only performance before taxes (pre-tax returns) and, perhaps, turnover percentage. Turnover is defined as the dollar volume of the fund's security sales divided by the total dollar amount of the fund. A turnover of more (less) than one is an indicator that the fund sells, on average, each of its individual security holdings more (less) than one time per year. Turnover is only a guideline for the frequency of security sales. It is entirely possible for a mutual fund to have a high turnover driven by sales activity in one group of securities while holding another group of securities for an extended time period of many years.

Although taxes may be important to investors, many fund managers are paid to produce the largest gains possible without considering their investors' tax situations. Because a fund manager's fee may not be based on the fund's return, but rather upon a percentage of the total asset value of the fund (Fried 1998), it is important for one to look at how a mutual fund advisor manages the fund's securities. Capital gain distributions result from the profitable sale of securities in the fund and frequent selling within a fund makes the fund more likely to produce taxable distributions than a fund that follows a strategy of "buy and hold."

In order to avoid corporate income tax, mutual funds are required to distribute essentially all of their realized capital gains, interest, and dividends to investors annually (Internal Revenue Code Section 852). Investors must pay taxes on these distributions regardless of whether they are reinvested in additional shares. Gain from sales of securities held by the fund for one year or less before being sold is categorized as short-term and taxed at the individual taxpayer's ordinary income tax rates. If the securities are held longer than one year, the gain from their sale is taxed at long-term capital gain rates. The characterization of a gain as long-term gives investors in upper income tax brackets quite an advantage since long-term capital gains are taxed at a maximum rate of 15% (5% for those in lower tax brackets) following passage of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (2003 Tax Act), while short-term gains are taxed at the investor's ordinary income tax rates. In order for investors to take advantage of the lower rates available on long-term capital gains, the investor must separate out their long-term capital gains and determine their tax according to the Schedule D Tax Worksheet. Many dividends are also taxed at a maximum rate of 15% (or 5% for lower brackets) under the 2003 Tax Act. However, these new provisions are generally effectively only through the year 2008.

To help investors assess mutual fund performance, the SEC recently required the disclosure of mutual fund after-tax returns (SEC Release Nos. 33-7941; 34-43857; IC-24832; File No. S7-09-00). The disclosure is located in the following two places: (1) the performance table located in the risk/return summary of the prospectus and (2) the section entitled Management's Discussion of Fund Performance ("MDFP"). Prior to these rules, most funds reported their performance results without considering the effect of taxes. The disclosure is not required to appear in advertising unless the fund is presented as a tax-efficient fund. In the case that the fund does choose to include the after-

tax returns in advertising material, the after-tax returns should be computed according to the standardized formula provided by the SEC.

For inexperienced investors, this disclosure can be confusing since it requires two standardized measures. The SEC states that funds are to disclose after-tax returns for 1-, 5-, and 10-year periods on both a 'pre-liquidation' and 'post-liquidation' basis. Pre-liquidation after-tax returns assume that the investor continues to hold fund shares at the end of the measurement period, reflecting the effect of taxable distributions by a fund to its shareholders but not any taxable gain or loss that would be realized by a shareholder upon the sale of fund shares. Post-liquidation after-tax returns assume that the investor sells his or her fund shares at the end of the measurement period, reflecting the effect of both taxable distributions by a fund to its shareholders and any taxable gain or loss realized by the shareholder upon the sale of fund shares. These new measures all assume that gains are taxed at maximum federal rates.

Investor Taxation

Investors incur tax liabilities from mutual funds in three ways: (1) realized capital gain distributions from the fund (short- and long-term) which represent the profit a fund makes when it sells securities, (2) interest or dividend distributions from the fund which represent all interest and dividend income earned by securities that are held by the fund and, (3) capital gains or losses arising from the sale or exchange of fund shares by the investor. Interest distributions and realized short-term capital gains distributions are generally taxed at ordinary income rates. (Although it is beyond the scope of this paper, the netting process of reporting capital gains and losses might require the individual investor with multiple capital gain/loss transactions to offset short-term gains against long-term losses or short-term losses against long-term gains, effectively changing their character.) A client in the highest federal income tax bracket is taxed at a marginal rate of 35% in 2003. Qualified dividend distributions from a mutual fund are now taxed at the new capital gains rates—15% for those in brackets above 15%, and 5% for those in the 15% brackets and below. The amount of dividends paid by a mutual fund that qualify for the capital gain rates may not exceed the amount of dividends received by the mutual fund during the year if the amount of aggregate qualifying dividends received by the mutual fund is less than 95 percent of its gross income. As noted previously, capital gains on securities held by the fund for more than 12 months are long-term and are taxed using the capital gain tax rates rather than ordinary income tax rates.

Unlike individually held securities, the mutual fund investor does not have control over the fund's realizations of capital gains and losses because the fund manager decides when and which securities to sell. The holding period is determined by the amount of time the shares have been held by the fund. Consequently, the length of time the investor has been a shareholder of the fund has no bearing on whether the type of capital gain distributed is either short- or long-term. For this reason, purchasing a mutual fund late in the fund's tax year means incurring a tax liability for all of the fund's transactions during that year. Another way to look at this is that the holder of a mutual fund at its year-end incurs the tax liability for its entire annual activity. Taxable investors might be wise to wait until the beginning of the next tax year to invest in such funds.

When considering whether to purchase a fund, one needs to be aware of when the fund plans to make its next distribution. Virtually all funds make distributions at year-end. Many funds also make quarterly distributions. Holders who own shares of a fund on the fund's record date will receive the distribution. If shares are bought at net asset value (NAV) shortly before a distribution, then the purchaser is, in essence, buying the dividend and being exposed to taxes on the distribution but gaining no added value for the shares. For example, assume the purchase of 1,000 shares of Fund X for \$10,000, or \$10 per share. The fund then distributes a \$1 per share capital gain, so its share price (NAV) drops to \$9 a share on the fund's reinvestment date. The investor still has \$10,000 (1000 x \$9, plus the \$1,000 distribution). However, now the investor owes tax on the \$1,000 distribution, even if the distribution is reinvested to buy more shares.

Mutual fund shareholders are taxed on gains and losses when they sell fund shares. Therefore, the method used to determine which shares are sold is very important. The gain or loss from the sale of fund shares is determined by subtracting the adjusted basis of the shares being sold from the NAV on the date of the sale, less any expenses of the sale. The adjusted basis of the fund shares can be determined in three ways: specific identification, average cost, and first-in first-out (FIFO). Specific identification can be used if the particular cost of the shares being sold can be identified. It provides the most control over taxable income and income tax liability (Smith 1998). Adequate documentation is needed to use this method along with confirmation from the fund manager.

The average cost method may be used if shares have been purchased at different times. The average share cost is determined using the single-category or double-category method. The single category method prices the shares by the average cost of all shares, regardless of how long the investor has held them. The double-category method allocates the total cost of shares into those held long enough to qualify for long-term capital gain and those held for a shorter period. The total cost in each group is then divided by the total number of shares owned in each group to develop an average cost per share for each of the two groups.

The FIFO method uses the price of the shares acquired first as the basis for the shares sold. The IRS assumes this method if no other method has been elected. Once one method is elected, it must be used for all accounts in the same fund; however, a different method may be used for shares in other funds, even those in the same family of funds (IRS 1998).

The gain/loss on the sale of the fund's shares by an investor qualifies for short-term or long-term treatment depending on how long the investor has held the shares. The holding period is determined from the day the purchase of fund shares is contracted through the day the shares are sold (IRS 1997). If the sale of shares results in a loss, then the investor may net the loss with short-term or long-term gains depending on the holding period. Individuals may annually deduct \$3,000 of capital losses in excess of capital gains and carry any remaining losses forward indefinitely (again to offset capital gains and annually deduct the \$3,000 excess of capital losses over capital gains). The investor is not taxed twice on reinvested gains the fund has already realized and distributed because the cost basis of the shares increases, or is adjusted, as capital gains and ordinary income are realized, distributed, and reinvested by the fund.

CLIENT SPECIFICS

The eleven funds of interest to your client have all distributed dividends and gains as noted in Exhibit 1. It is your job to evaluate the funds based on your client's personal tax position. Taxes do have an effect on returns, but funds should not be chosen based solely on their taxable distributions. A fund yielding exceptional returns may still surpass other funds in spite of its tax burden. For computations in this case, use a 40% combined federal and state rate for short-term gains and dividends and a 20% rate for long-term capital gains since at the time of the case data, dividends were taxed at ordinary income rates, the top marginal rate was 39.6%, and the long-term capital gain rate was generally 20%.

STUDENT REQUIREMENTS

Basic requirements

1. From the data in Exhibit 1, calculate and rank the 1999 and 2000 pre-tax returns for each fund. The return is calculated by dividing the total investment return, which includes change in net asset value (NAV), dividends, and gains distributed to shareholders, by the NAV of the fund at the beginning of the stated fiscal year. Consider preparing a spreadsheet for this purpose. For computations, assume all dividends are paid in cash at year-end.
2. Can total distributions be used to predict pre-tax rates of return? Perform a regression analysis for 1999 using total distributions as the independent variable and pre-tax rates of return as the dependent variable. Is there correlation between these variables? Are rankings based on pre-tax rates of return significantly different from your client's ranking based solely on distributions made?
3. For each of the years 1999 and 2000, calculate the current year after-tax return (on a pre-liquidation basis). This means that you assume your client holds and does not sell the fund shares at year-end. The taxpayer is taxed on all realized distributions, which are broken into ordinary income (dividend distributions and short-term capital gains), as well as long-term capital gains. Make your after-tax return calculations under the following two independent circumstances:
 - a. Assuming the client is in the 40% tax bracket for ordinary income.
 - b. Assuming the fund is held in a Roth IRA or a tax-exempt pension fund. (Deposits to a Roth IRA are made with after-tax dollars. Returns from a Roth IRA are tax exempt (IRC§408A)).
 - c. What are the implications of the above results for both fund managers and investors in circumstances (a) and (b) above?

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4. Can pre-tax rates of return be used to predict after-tax rates of return? Perform a regression analysis for 1999 using pre-tax rates of return as the independent variable and after-tax rates of return as the dependent variable. Is there correlation between these variables?
 5. For each fund year, using a 40% tax rate for ordinary income and a 20% tax rate for capital gains, calculate both the amount and the percentage of return lost to taxes. For example, assume that fund XYZ has a 24 percent pre-tax return. You calculate that the amount of the return lost to taxes is 3 percent, leaving an after-tax return of 21 percent. Of the total return, 3/24 or 12.5 percent of the return is lost to taxes.
 6. For each year, rank the funds in the following three ways: (1) by pre-tax return, (2) by after-tax return (using the calculations for a 40% tax rate for ordinary income and a 20% tax rate for capital gains), and (3) by return lost to taxes (also using the 40%/20% ordinary/capital gains tax rates). Comment on your rankings. Are rankings based on pre-tax rates of return significantly different from rankings based on after-tax rates of return?
 7. Using your data from part 6, group the mutual funds into pairs for each year based on their pre-tax rates of return. That is, take the mutual fund with the highest pre-tax rate of return and pair it with the mutual fund with the second highest pre-tax rate of return. Group the mutual fund with third highest pre-tax rate of return with the fund having the fourth highest pre-tax rate of return and so forth. Do not include the Vanguard Index 500 in the pairs. Now compare the pre-tax rate of return to the after-tax rate of return for each of these pairs. Comment on your findings.

Advanced requirements

8. Over a long period of time, efforts to minimize taxes can provide a handsome payoff. Consider a \$100,000 investment and a 10-year decision horizon. What is the effect of taxes on this investment if it has a 10 percent pre-tax return and a 7 percent after-tax return? (Note that many of the mutual funds in Exhibit 1 (11 of 22 fund-years) lose more than a 3 percent per-year return to taxes.)
9. Many investors prefer to invest individually in stocks because they can choose when to sell their shares based on their personal financial position and the current state of the market. Mutual fund investors, however, are subject to the decisions of the fund managers regarding the fund's sale and/or purchase of individual stocks. As a result, many funds have large unrealized stock appreciation in their portfolios. (This could be seen by an increase in NAV from the beginning to the end of the year. Note the change in NAV for the funds in Exhibit 1.) How might this unrealized appreciation impact the following clientele:
 - a. Old shareholders?

- b. Future shareholders?
 - c. Portfolio managers?
10. Recently, some mutual funds have advertised that they are managed in a way to minimize their investors' tax liabilities. What factors would you use to try to identify mutual funds that are more "tax-managed" than others?
 11. In 2000, the market dramatically fell impacting all mutual fund portfolios. How might mutual investors end up paying a huge tax bill while experiencing a decline in the NAV of their fund investment? Do you see any evidence of this in your calculation of 2000 before- and after-tax returns for the mutual funds in Exhibit 1? (HINT: How might investor redemptions caused by poor fund performance force a mutual fund to increase its taxable income and therefore pass larger dividends on to its remaining shareholders?)
 12. Obtain an article discussing the requirement for disclosures of mutual fund after-tax returns. One likely source for this information is the CCH Internet Tax Research Network, which is available at most university libraries. Comment on the strengths and weaknesses associated with this requirement.

NOTE

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EXHIBIT 1
Selected Mutual Funds

| Fund Name | Quisip | Symbol | Net Asset Value | | 1999 Distributions | | | Total Distributions | Rank Order* |
|-------------------------------|-----------|--------|-----------------|----------|--------------------|-------|-------|---------------------|-------------|
| | | | 12/31/1998 | 12/31/99 | Ordinary | Long | Short | | |
| American Century 20th Growth | 25083106 | TWCGX | 27.16 | 32.28 | 0.000 | 3.336 | 0.179 | 3,515 | 4 |
| Fidelity Blue Chip Growth | 316389105 | FBGRX | 50.39 | 60.11 | 0.140 | 1.900 | 0.170 | 2,210 | 7 |
| Fidelity Large Capital Stock | 315912402 | FLCSX | 16.98 | 21.57 | 0.040 | 0.230 | 0.200 | 0,470 | 11 |
| Fidelity Retirement Growth | 316145309 | FDFFX | 20.51 | 25.85 | 0.050 | 1.470 | 2.190 | 3,710 | 3 |
| Growth Fund of America | 399874106 | AGTHX | 22.40 | 29.14 | 0.045 | 3.195 | 0.000 | 3,240 | 5 |
| MFS Large Capital Growth A | 552985301 | MCGAX | 17.02 | 21.00 | 0.000 | 1.078 | 0.865 | 1,943 | 9 |
| MSDW American Opportunities-B | 616933206 | AMOBX | 32.85 | 42.63 | 0.000 | 0.940 | 4.706 | 5,646 | 1 |
| MSDW Capital Growth B | 616936209 | CAPBX | 15.13 | 14.94 | 0.000 | 1.572 | 2.862 | 4,434 | 2 |
| Nation's Capital Growth Inv A | 638579458 | NCGIX | 11.65 | 13.41 | 0.000 | 0.777 | 0.000 | 0,777 | 10 |
| Northern Growth Equity | 665162103 | NOGEX | 20.80 | 23.48 | 0.016 | 2.001 | 0.000 | 2,017 | 8 |
| Vanguard Index 500 | 922908108 | VFINX | 113.95 | 128.52 | 1.410 | 0.920 | 0.075 | 2,405 | 6 |

| Fund Name | Quisip | Symbol | Net Asset Value | | 2000 Distributions | | | Total Distributions | Rank Order* |
|-------------------------------|--------|--------|-----------------|----------|--------------------|-------|-------|---------------------|-------------|
| | | | 12/31/1999 | 12/31/00 | Ordinary | Long | Short | | |
| American Century 20th Growth | | | 32.28 | 24.00 | 0.000 | 3.265 | 0.313 | 3,578 | 4 |
| Fidelity Blue Chip Growth | | | 60.11 | 51.53 | 0.000 | 2.270 | 0.250 | 2,520 | 7 |
| Fidelity Large Capital Stock | | | 21.57 | 17.75 | 0.010 | 0.610 | 0.180 | 0,800 | 11 |
| Fidelity Retirement Growth | | | 25.85 | 22.01 | 0.080 | 2.220 | 1.890 | 4,190 | 3 |
| Growth Fund of America | | | 29.14 | 27.08 | 0.145 | 4.095 | 0.000 | 4,240 | 2 |
| MFS Large Capital Growth A | | | 21.00 | 16.10 | 0.000 | 2.420 | 0.901 | 3,321 | 5 |
| MSDW American Opportunities-B | | | 42.63 | 32.94 | 0.000 | 2.437 | 2.905 | 5,342 | 1 |
| MSDW Capital Growth B | | | 14.94 | 13.25 | 0.000 | 0.026 | 1.586 | 1,612 | 9 |
| Nation's Capital Growth Inv A | | | 13.41 | 9.64 | 0.000 | 2.360 | 0.000 | 2,360 | 8 |
| Northern Growth Equity | | | 23.48 | 18.72 | 0.000 | 2.352 | 0.679 | 3,031 | 6 |
| Vanguard Index 500 | | | 128.52 | 121.86 | 1.300 | 0.000 | 0.000 | 1,300 | 10 |

*Based on Total Distribution

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