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Letter from the Editor

Welcome to the Summer 2006 issue of the *Journal of Finance Case Research*, the official journal of *The Institute of Finance Case Research* (IFCR). Volume 8, Number 2 is the second of three anticipated issues for 2006. I would like to express my thanks to the authors, reviewers and other supporters who have helped us get another issue put together.

The IFCR provides an avenue for the writing of cases and their submission for peer review. Cases accepted for publication in the *Journal* have met the requirements of a double-blind review process, and are available for use through *Journal* subscriptions or by contacting the *Institute* for multiple copies (for a small fee per copy of the case). Teaching notes are available to instructors desiring to use each case by contacting the *Institute*. Our acceptance rate is 25%. The *Journal* is listed in *Cabell's Directory of Publishing Opportunities in Economics and Finance* and other standard references.

In addition to the *Journal*, the *Institute* continues to promote the interaction of case writers in a conference setting. Cases submitted for conference presentation are eligible for the review process for the *Journal*. Our overall objective is to create an outlet for case writers, and a source of high quality cases for case users.

I would like to personally invite case writers and case teachers to participate in the activities of the *Institute*. Our case sessions have been held at a variety of finance conferences, and they provide an excellent opportunity for interaction with others with similar interests. The journal has sponsored or participated in case or teaching sessions at annual meetings of the Southwestern Case Research Association, the Financial Management Association, the Southwest Finance Association, the Midwest Finance Association, the Academy of Economics and Finance and the Financial Education Association. Historically, cases presented at conferences have had more success in getting published, perhaps because of the scrutiny and comments they receive from other educators.

The *Journal* accepts cases of all types, as is evident from the content of this issue. Primarily, though, we want the *Journal* to be an outlet for interesting and representative cases. We have focused on decision cases in the past, both "textbook"-style directed cases and also more involved, open cases. In every instance, we are seeking cases that will be relevant and engaging for students and professors alike.

As I mentioned in the last issue, the *Institute* is currently planning to create an outlet for shorter "one-pager" problems and classroom exercises which will debut in 2007. Some of our colleagues have been using short exercises in class for many years, and I hope folks will send those in and have them editorially reviewed and published the *Journal's* sister publication.

Finally, I would like to encourage all of our readers to consider volunteering to review manuscripts as schedules permit. Finding reviewers is a key part of the managing editor's job, and it is becoming more and more difficult as the volume of manuscripts increases.

This issue of the *Journal of Finance Case Research* contains eleven outstanding cases and an excellent discussion on the use of cases in the classroom. I urge you to put all of these to good use in your classes and seminars.

For additional information about the *Journal* and the *Institute*, please go to jfcr.org on the Web.

Timothy B. Michael, Managing Editor
Journal of Finance Case Research

FREEPORT, INC.: A CASE ON HEDGE REPORTING AND ANALYSIS

Terrill R. Keasler, Appalachian State University
Kennard S. Brackney, Appalachian State University

This case examines a company's implementation of a hedging strategy using derivatives, the company's satisfaction of the complex reporting requirements for these instruments, and its analysis of the new strategy's impact on financial statements. The case presents a variety of hedging situations, including different types of hedged items (bonds payable, commodity inventory, and a forecasted transaction), hedging instruments (futures contracts and an interest rate swap), positions in the hedging instrument (long and short positions), and financial reporting categories (fair value and cash flow hedges). The case examines three separate hedging transactions undertaken by Freeport, Inc., and it asks students to apply reporting requirements given in the Financial Accounting Standards Board's Statement No. 133 to each of them. Students must determine how hedging affects the company's financial statements and provide an explanation of these effects. The case considers income tax consequences, including deferred income taxes, and explores the impact of hedge ineffectiveness.

NEW EXECUTIVE TEAM

Freeport, Inc. is an integrated mining and agricultural business with operations in the US. The business started in 1942 when the government weakened restrictions on mining Federal lands to assist the war effort. With the retirement of the firm's long-time CEO, Nick Rockingham, in 2004, Freeport brought in John Hernandez to succeed him and Britney Grossman to serve as CFO. At his hiring, Mr. Hernandez was aware the company had never used hedging instruments in its operations or funding. Freeport's board of directors, wishing to reduce the company's exposure to market volatility, chose him primarily because of his derivatives management experience.

Ms. Grossman came from a large regional bank where she specialized in the reporting of derivatives and hedges. In her initial meeting with the board, she discussed hedging and how it might impact the company's financial statements given several operating and financing scenarios. She overviewed the Financial Accounting Standards Board's Statement No. 133, which requires that all derivatives be recognized as assets or liabilities and be measured at their fair value. She identified several sources of risk that the company should consider hedging with derivatives, including the market variability associated with its debt, its gold inventory, and its planned corn purchases. The new CFO described hedging as taking the opposite position in a positively correlated item (e.g., a short position to offset a long position, or vice versa) or the same position in a negatively correlated item (e.g., long positions in both or short positions in both). Exhibit 1 gives a summary of the reporting requirements she discussed with the board.

INITIATING USE OF DERIVATIVES

Freeport's financial statements at year-end 2004, prior to use of derivatives for hedging purposes, are presented in Exhibit 2. During December 2004, Mr. Hernandez met with the company's directors to discuss how derivatives might be used to reduce operating and financing risks. He asked the board to consider approving use of derivatives in three areas.

Anticipated Corn Purchases

One of Freeport's agricultural businesses converts corn to ethanol, and the company purchases corn for this purpose. The selling price of the ethanol is fixed by contract at $1.50 per gallon. Freeport's practice with respect to the corn input is to buy it in the cash market. Concerned the spot price would rise by the time of the next anticipated purchase in early July 2005, the directors approved the use of futures contracts to hedge the cost of the anticipated purchase. On January 2, 2005, Freeport purchased 20 corn futures contracts for July delivery on the Chicago Board of Trade (CBOT) at a price of $2.00 per bushel. Each contract represents 5,000 bushels of corn. The company's sales agreements call for use of Number 2 yellow corn, the same specification traded on the CBOT.

The quoted price for the futures contract at the end of March 2005 was $2.10 per bushel. On June 30, 2005, Freeport sold the futures contracts at $2.15 per bushel and purchased corn at the same price to supply its ethanol factory. Over the six months, the futures price of corn moved exactly with the spot price. Because Freeport's ethanol factory is located near the company's corn suppliers in the Chicago area, the cost of delivery to the factory is immaterial. Freeport completed the sale of ethanol to customers on July 25, 2005.

Inventory of Gold Bullion

Freeport engages in placer gold mining in Alaska and produces gold bullion for sale. At a meeting in June 2005, Freeport's board discussed the potential for the inventory of recently smelted, but unsold, gold bullion (1,000 ounces) to decline in value before its projected sale in January 2006. The board concluded that the spot price of gold was likely to fall over this period, so it authorized use of futures contracts to hedge the price risk associated with the company's gold inventory. On July 1, 2005, the company sold (the technical term is *shorted* since Freeport will be selling without owning) 10 futures contracts for January 2006 delivery at a price of $440 per ounce. Each contract represents 100 ounces of gold. The inventory was being carried on Freeport's books at its production cost of $95,000, reflecting the relatively low cost of the company's placer mining operation.

At the end of September 2005, the January 2006 futures contract was trading at $450 per ounce. By year-end 2005, the market price of the futures contract had fallen to $400 per ounce. On January 2, 2006, Freeport purchased 10 gold futures contracts at $400 per ounce to close its short position, and the company sold its gold inventory at that same price. Over the six months, the price of gold in the futures market moved exactly with the price of gold in the spot market. Freeport's terms of sale relating to delivery charges specify FOB shipping point.

Fixed-Rate Debt

In December 2005, Freeport's directors approved the use of an interest rate swap to hedge the interest rate risk on the company's fixed-rate bonds payable. Based on advice from the company's capital markets advisors, the board believed that interest rates would fall over the remaining five-year term of the 8% bonds. If interest rates were to fall, the company would like to take advantage of the lower rates to reduce its interest cost. The loan does not permit prepayment, so, on January 2, 2006, Freeport initiated a fixed-to-floating interest rate swap with a term of five years and a notional amount of $500,000. The swap instrument calls for the company to receive a fixed rate of 8% and pay the London Interbank Offer Rate (LIBOR) as the variable rate. The swap allows the company to pay interest each period on the bonds according to the LIBOR.

On January 2, 2006, the LIBOR was 8%. The swap requires net settlement every three months, beginning March 31, 2006, using the quarter-end LIBOR. The LIBOR rose to 9% at March 31, 2006, and it rose further to 10% at June 30, 2006. Freeport forecasts a flat yield curve in relation to estimating the fair value of the swap.

EVALUATING THE NEW STRATEGY

Along with its authorization for the new executive team to begin using derivatives to hedge certain risks, Freeport's board established a process for monitoring the success of the new strategy. The process calls for Mr. Hernandez to meet with the board shortly after each quarter-end to discuss the impact of hedging activities on the company and its financial statements. The board believes these meetings are essential for identifying any refinements to the hedging strategy that may be needed. To prepare for the meetings, Mr. Hernandez needs quarterly financial statements that comply with hedge reporting requirements in Statement 133. Ms. Grossman is responsible for the preparation of these financial statements.

The information provided in the case presents students with an opportunity to examine the reporting requirements for derivative hedges given in Statement 133 and to apply them to Freeport's hedging transactions. Ms. Grossman requires assistance with the reporting process and interpreting the resulting financial information. For each scenario, students must determine how hedging affects the company's financial statements and provide an explanation of these effects. Statement 133 may be accessed at www.fasb.org.

Exhibit 1. Summary of Ms. Grossman's Presentation on Hedge Accounting.

The accounting requirements for derivatives are given in Statement 133. Derivatives, including those used for hedging purposes, must be recognized as assets or liabilities and reported in the financial statements at their fair value. Statement 133 provides special hedge accounting for qualifying hedges, a treatment that is designed to align the reporting of derivatives and hedged items in the financial statements. Alignment is an issue because, in the absence of special hedge accounting, few hedged items are reported at fair value. In particular, hedge accounting aligns the timing of inclusion of gains and losses on the derivative and hedged item in a company's net income. This presentation covers two forms of hedge accounting that could be of relevance to Freeport.

FAIR VALUE HEDGE ACCOUNTING

Definition and Application

Fair value (FV) hedge accounting applies to derivatives that are used to offset changes in the fair value of recognized assets and liabilities and unrecognized firm commitments. A FV hedge can protect against changes in fair value, or price risk, as a result of contract terms that are fixed. For example, a company obtains a loan under a fixed-rate note payable. Or, a manufacturer signs an agreement to make future purchases of a commodity it needs at a fixed price. In each case, the company's cash flows are certain; however, the company may be concerned the market rate/price will fall over the term of the contracts, causing it to pay an amount above the prevailing market rate/price. To protect against increasing fair values for liabilities, the company enters into derivative contracts that offset any changes in value. A FV hedge can also protect against the price risk of an asset. For example, a company has a commodity inventory subject to price risk over the holding period leading up to sale. To guard against a loss of value, the company enters into a derivative contract that offsets changes in the inventory's value.

Financial Statement Effects

The derivative is reported in the balance sheet at its fair value. The hedged item in a FV hedge is adjusted each period for the *change in* its fair value attributable to the specific risk being hedged. In many cases, the hedged item is shown at its full fair value. *Special hedge accounting* achieves this symmetry in reporting by allowing the accounting for the hedged item to follow the accounting for the derivative. That is, hedged items are adjusted for *changes in* fair value to match the reporting of the derivative. Balance sheet presentation of the derivative and hedged item follows normal classification criteria, meaning they are classified as current assets and liabilities if they are expected to be settled within the next year.

The special hedge accounting also aligns the reporting of gains and losses in net income. With FV hedge accounting, unrealized gains and losses on derivatives and hedged items are recognized immediately in net income. For a perfectly effective hedge, a gain on one component of the hedge will fully offset a loss on the other component. Thus, net income will not be affected. Perfect effectiveness is not a requirement, though, for special hedge accounting. The

derivative must be *highly effective* in offsetting gains and losses on the hedged item, leaving room for some ineffectiveness. For a less than perfectly effective hedge, the gain on one component may not equal the loss on the other. Net income is impacted by the amount of any ineffectiveness. The unrealized gains and losses in a FV hedge should be presented in the other items section of the income statement.

CASH FLOW HEDGE ACCOUNTING

Definition and Application

Cash flow (CF) hedge accounting applies to derivatives used to offset changes in the cash flows associated with recognized assets and liabilities and unrecognized forecasted transactions. A CF hedge protects against variability in cash flows caused by contract terms that are variable. For example, a company obtains a loan under a variable-rate note payable. Or, a manufacturer anticipates purchasing a commodity input at a future date. In each case, the company's future cash flows are uncertain; they depend upon how much the market rate/price will move in the future. The company might fear an increase, which would raise the amount it must pay above the current market rate/price. To guard against the potential for increased payments, it enters into a derivative contract that offsets any changes in cash flows. The company locks in the future cash flows at a known current rate/price that it believes will be lower, and thus more favorable, than future rates/prices.

Financial Statement Effects

As before, the derivative is reported in the balance sheet at its fair value. In contrast to FV hedge accounting, though, the hedged item in a CF hedge is not reported at fair value, nor is it adjusted for changes in fair value. The reason is that the hedged item's fair value normally does not vary. So, a recognized asset or liability continues to be shown at its initial amount, adjusted by the amortization of any initial premium or discount, and forecasted transactions remain unrecognized until they actually occur. As a result, a mismatching arises in the reporting of the derivative and hedged item in the balance sheet.

The *special hedge accounting* for CF hedges attempts to align reporting of unrealized gains (or losses) on derivatives with the eventual realization of lower (or higher) income on hedged items. It accomplishes this objective by delaying the reporting of unrealized gains (or losses) on the derivative in net income. The gains (or losses) are reported as part of other comprehensive income (OCI) in the periods they arise and are subsequently reclassified into net income to offset realization of lower (or higher) income on the hedged item. OCI items are the components of a company's comprehensive income beyond those reported in net income; they arise from the revaluation of certain assets and liabilities. OCI items are reported directly in equity as part of accumulated OCI, which is distinct from retained earnings. CF hedge accounting can produce volatility in equity until the unrealized gains (or losses) are reclassified into net income. This is true even for perfectly effective hedges.

Statement 130 gives companies three options for the display of OCI items in financial statements. Companies may display these items in a combined statement of net income and

comprehensive income, in a separate statement of comprehensive income, or in a statement of changes in equity.

INTERPRETATION OF FINANCIAL STATEMENT EFFECTS

In most cases, interpretation of a derivative's presentation in the balance sheet is straightforward. A derivative reported as an asset has produced a net unrealized gain thus far, and one reported as a liability has produced a net unrealized loss. A net unrealized gain offers evidence that the company was correct in its forecasting of the future direction of market rates/prices. A net unrealized loss offers evidence of the opposite. Care should be taken, though, with these interpretations. Some companies hedge all exposed positions, or certain ones, as a standard practice. These companies view a loss on the derivative as simply part of the cost of achieving certainty of pricing or cash flow outcomes. In addition, experiencing a gain on a derivative that only partially hedges a loss would not be good news for the company. Due to the partial nature of the hedge, the loss on the hedged item exceeds the gain on the derivative. The company missed an opportunity to achieve full offset of the loss on the hedged item.

Exhibit 2. Freeport, Inc.'s Financial Statements before Hedges.

Balance Sheets	12/31/04	3/31/05*
Assets:		
Cash	$ 100,000	$ 137,500
Receivables	200,000	200,000
Inventory	300,000	300,000
Total current assets	600,000	637,500
Fixed assets	1,400,000	1,400,000
Total assets	2,000,000	2,037,500
Liabilities and Equity:		
Accounts payable	$ 100,000	$ 100,000
Notes payable	100,000	100,000
Accrued wages	50,000	50,000
Total current liabilities	250,000	250,000
Long-term debt (8% coupon)	500,000	500,000
Total liabilities	750,000	750,000
Common stock	400,000	400,000
Retained earnings	850,000	887,500
Total equity	1,250,000	1,287,500
Total liabilities and equity	2,000,000	2,037,500
Income Statements	**Year ending 12/31/04**	**Quarter ending 3/31/05****
Sales	$2,000,000	$500,000
Cost of goods sold	1,400,000	350,000
Gross profit	600,000	150,000
Operating expenses	200,000	50,000
Operating income	400,000	100,000
Interest expense	50,000	12,500
Income before taxes	350,000	87,500
Income tax expense (40%)	140,000	35,000
Net income	210,000	52,500
Dividends	60,000	15,000
Addition to retained earnings	150,000	37,500

* The preliminary balance sheets (before considering the effects of issues raised in the case) at the next five quarter-ends (through June 30, 2006) are identical, except for an additional increase of $37,500 each quarter to cash and retained earnings.
** The preliminary income statements for the next five quarters are identical.

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Financial Accounting Standards Board (FASB) (1997). *Reporting Comprehensive Income*. Statement of Financial Accounting Standards No. 130. Norwalk, CT: FASB.

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THE SUBTLETY OF POLITICAL RISK WITH FOREIGN DIRECT INVESTMENT: THE CASE OF THE VIETNAMESE SUGAR INDUSTRY

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Bonnie Buchanan, University of South Carolina & University of Melbourne
Janice Lo

Political risk entails more than a host country taking advantage of investment from foreign sources. A more subtle form of political risk is attributable to the host government's mismanagement of policies that may be intended to attract foreign direct investment, but may have unintended consequences. A perfect example is the "One Million Tonne Sugar Program" sponsored by the government of Vietnam during the mid-1990s. What appears to be a very lucrative investment for foreign investors becomes a financial disaster due to the inability of the government to allocate resources efficiently and police its borders from smugglers.

THE NATURE OF POLITICAL RISK

Foreign direct investment in any economy is a risky undertaking that is different from many other investments. Unlike the purchase of stocks and bonds where contractual obligations protect the rights of investors, a foreign government can potentially seize the investment for itself, extract additional money for infrastructure improvements not entirely related to the investment, solicit bribes, or create advantages for domestic participants in the industry. Clark (1997) provides a broad definition of "political risk" that captures all of these aspects of what can be problematic with foreign direct investment. Political risk is the probability of politically motivated changes (either explicit or ongoing change) that affect the outcome of foreign direct investment.

Consequently, in addition to the risk normally associated with the investment, the governmental structure and the existing legal system of the host country are a matter of concern. Many countries that desire foreign direct investment struggle with these specific issues. Further, it is not only an issue of making changes in the existing governmental/legal systems, but also an issue of determining whether the changes are credible. The "One Million Tonne Sugar Program" in Vietnam during the mid-1990s provides an instance in which a number of these factors can be examined concurrently[1].

The success/failure of the venture hinges on a government program to stop the importation of sugar into Vietnam and to make Vietnam a sugar exporter. The specific goal is to develop a sugar industry within Vietnam capable of producing one million tonnes of refined sugar by the year 2000. To make sugar production efficient, large mills are needed with nearby lands dedicated to the growing of sugarcane. Although the production of one million tonnes is met by 2000, the sugar industry was far from efficient or profitable.

SUGAR PRODUCTION AND THE ONE MILLION TONNE SUGAR PROGRAM [2]

To produce sugar efficiently requires economies of scale. The sugar mills must be large (crushing capacity of 350,000 tonnes of sugarcane) and the sugarcane must be "crushed" with as little delay as possible after being harvested to prevent sugar content loss. The solution for the latter issue is to simply have the sugarcane grown in an area very close to the mill. This prevents sugar content loss and reduces transportation costs. As to building large sugar mills, a licensure procedure that prevents the building of small inefficient mills insures the best use of resources.

The intention of the One Million Tonne Sugar Program was to build large mills throughout the country in economically poor areas. The government would provide infrastructure improvements and seek contracts from farmers to grow the sugarcane for specific mills. While the industry developed, protective import tariffs (as high as 70% above the world price of sugar) and quotas were imposed to create a domestic market for the new mills. Eventually, the mills would produce enough sugar to supply the country and allow for the export of sugar (about 20% to 25% of the output would sell on the world market, Saigon Times Daily 8/9/1999).

The mills were to be funded though loans indirectly from the government through state owned banks and through foreign direct investment. The benefit of the bank loans was that the state often forgave or refinanced loans in times of crisis. The disadvantage of bank loans was that government financing required semi-annual inspections in which bribes were often solicited.[3] Consequently, a joint venture with the government or having all funding provided by a foreign source carry (possibly offsetting) advantages and disadvantages.

Preliminary feasibility proposals for building new sugar mills were to be evaluated by the Ministry of Agricultural and Rural Development (MARD). Mills requiring investments over 100 billion Vietnamese dong (approximately 9 million U. S. dollars) need further approval by the Ministry of Planning and Investment, the Ministry of Finance, and eventually by the Prime Minister. As a result, smaller mills had fewer requirements for approval creating an incentive to not build large mills.

Overall, the incentives for building a sugar mill in Vietnam during the late 1990s are very compelling:

- A contracted constant supply of sugarcane
- Extension programs (primarily performed by large mills) to increase the sugar content of the sugarcane
- Improved infra-structure for the transportation of sugarcane from the fields
- A restrictive tariff that makes domestic sugar prices inflated and quotas to restrict imported sugar
- Potential for loans from government backed banks

With all of the government initiatives in place, the main decision for an investor is to determine the size of the sugar mill to be built.

An NPV analysis for a sugar mill that can crush 500,000 tonnes annually (based on industry standards from other sugar producing countries) is displayed in Exhibit 1.

Exhibit 1

NPV Analysis of Sugar Proposal*

DCF Analysis of Sugar Mill Project

Assumptions

Initial Capacity	3,000	TCD	Cost of Goods Sold	60%
Expanded Capacity	4,000	TCD	Selling, General & Admin.	10%
Annual Output - Initial	55,890	tonnes	Value Added Tax (VAT)	10%
			Tax Rate	25%
Crushing Period	180	days	Discount Rate	10%
Sugar Content	11.5%		Depreciable Life (years)	10
Molasses Content	5.0%		Investment Outlay	
Mill Extraction Yield	90%		Initial ($ million)	30,000
Mill Capacity Utilization	100%		Expansion ($ million)	10,000
World Sugar Price (per ton)	$250		Financing	
Price of Molasses (per ton)	$40		Loan ($ million)	15,000
			Interest Rate	10%

($'000)	Year ->	1	2	3	4	5	6	7	8	9
Import Tariff		40%	40%	40%	40%	40%	40%	30%	20%	10%
Domestic Sugar Price ($/ton)		$350	$350	$350	$350	$350	$350	$325	$300	$275
Sales of Sugar		0	0	19,562	19,562	19,562	19,562	18,164	16,767	15,370
Sales of Molasses		0	0	972	972	972	972	972	972	972
Total Revenue		0	0	20,534	20,534	20,534	20,534	19,136	17,739	16,342
Cost of Goods Sold		0	0	12,320	12,320	12,320	12,320	11,482	10,643	9,805
Selling, General & Admin.		0	0	2,053	2,053	2,053	2,053	1,914	1,774	1,634
Depreciation		0	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000
EBIT		0	0	3,160	3,160	3,160	3,160	2,741	2,322	1,903
Value Added Tax		0	0	97	97	97	97	97	97	97
Interest Expense		0	750	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Tax		0	0	391	391	391	391	286	181	76
Profit After Tax		0	-750	1,172	1,172	1,172	1,172	858	543	229
Add Back Depreciation		0	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Free Cash Flow from Ops.		0	-750	4,172	4,172	4,172	4,172	3,858	3,543	3,229
Continuation Value										31,641
Free Cash Flow		0	-750	4,172	4,172	4,172	4,172	3,858	3,543	34,870
Project Cost		-30,000								
Net Free Cash Flow		-30,000	-750	4,172	4,172	4,172	4,172	3,858	3,543	34,870
NPV as of Year 1		**1,458**								

Notes

1. Initial project implementation is expected to take up to 2 years for completion.

2. Since Vietnam plans to eventually export sugar, import tariff is assumed to be gradually reduced: 10% reduction a year, starting from Year 7.

*Assumptions are based upon the sugar production standards in other sugar producing countries. The 10% discount rate is recommended by the International Financing Corporation. The 25% tax rate is drawn from the Economist Intelligence Unit and McKenzie and Pugh (1994). Note that in May 2003, the National Assembly unified the corporation income tax rate at 28%. Prior to 2003, it was 32% for domestic firms and 25% for foreign firms.

The analysis considers the eventual removal of the restrictive tariff. The discount rate of 10% produces an NPV that is positive with an internal rate of return of 10.93%. The funding of the project assumes no state sponsored funding despite its possible benefits. Based on the analysis, the project is deemed acceptable and this is the same conclusion that many foreign and domestic investors reached. Consequently, a number of new sugar mills were built during this period.

THE RESULTS OF THE ONE MILLION TONNE SUGAR PROGRAM

By 2000, the program meets the one million tonne production goal with the emergence of 33 new sugar mills throughout the country in a five year period (44 mills total). The growing area for sugarcane increases from 150,000 hectares to 350,000 hectares[4]. Although larger mills are preferred due to economies of scale, most of the new mills are small because the approval process is much quicker (28 of 44; crushing capacity of less than 150,000 tonnes annually). Nine medium size mills (crushing capacity of 150,000 to 350,000 tonnes annually) and six large mills (crushing capacity in excess of 350,000 tonnes; 3 joint ventures between foreign investors and local governments and 3 completely owned by foreign investors) comprise the rest of the industry. Except for the large mills, most of the mills are owned by local governments or the central government.

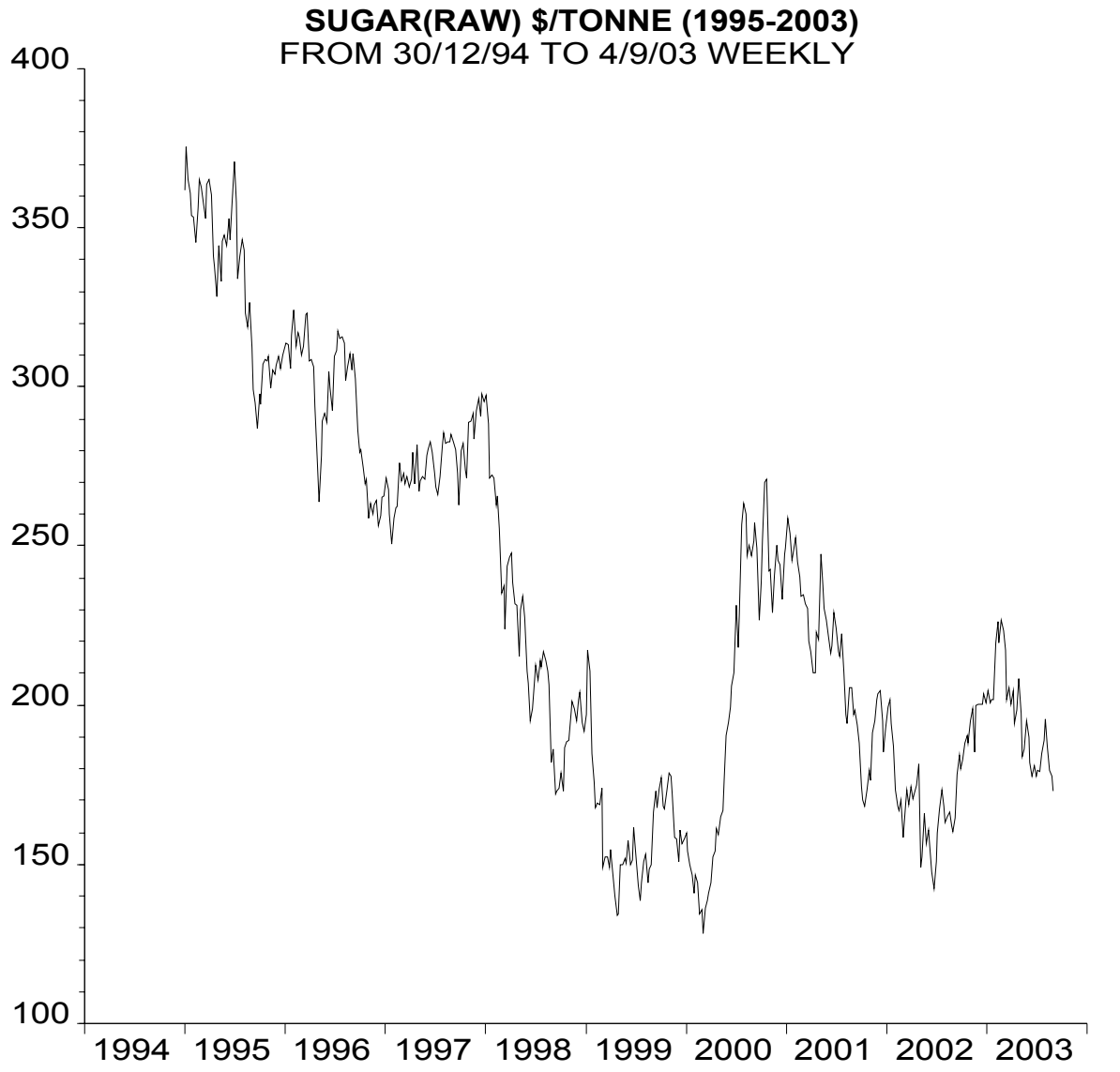
The first difficulty faced by the sugar industry in Vietnam was that sugar prices plunged (see Figure 1) in the late 1990s.

The high import tariff and the ability to smuggle sugar over Vietnam's large border (approximately 3,000 kilometers or 1,864 miles) created massive stockpiles of domestic sugar as smuggling commenced (Mai, the Vietnam Investment Review, 5/4/1999; see Exhibit 2 for smuggling estimates).

A cycle began to develop in which the high domestic sugar prices encouraged smuggling, creating stockpiles of domestic sugar (160,000 tonnes report by Asia Pulse 11/26/1999, 280,000 tonnes reported by The Vietnam Investment Review 4/29/2002; the local market consumes roughly 750,000 tonnes of sugar annually). With large stockpiles of sugar, mills reduced output leaving farmers with sugarcane that they could not sell (one report of 500,000 tonnes of unsold sugarcane appears in Asia Pulse 3/14/2000). Stockpiles also created enough of an incentive for farmers not to grow sugarcane for fear of not being able to sell the sugarcane in the future (a reduction of 30,000 hectares of farmland devoted to sugarcane is reported by The Vietnam Investment Review 3/5/2001 for the 2000-2001 growing season). The cycle completed with sugarcane shortages that allowed mills to only run at 70% capacity (The Vietnam Investment Review 4/1/2002).

Economic difficulties within an industry are risks assessed prior to investment and failure is certainly not necessarily the fault of the host government. However, poor implementation of the program exacerbates the economic difficulties. First, the approval of small to medium-size inefficient mills (roughly 60% of the overall production of sugar) funded by government sources hurts the larger mills. The inefficient mills extract valuable resources and have no incentive to be efficient because the government will more than likely forgive/restructure debt (see Centre for International Economics report prepared for the World Bank (2001)).

Figure 1. Raw Sugar Prices



Source: DATASTREAM

Note: A tonne refers to a metric ton which is equivalent to 2,204.62 lbs.

Second, the government does not fulfill its obligations in regard to infrastructure improvements and contracting with farmers to grow sugarcane. Only 15% to 20% of the funds required for infrastructure improvements (primarily for building roads) are realized. Approximately 42% of the farmland designated for growing sugarcane is outside the original specified boundaries creating significantly higher transportation costs and more loss of sugar content within the harvested sugarcane. Furthermore, incidents of farmers selling sugarcane to a purchaser other than the designated mill occur (e.g. see Mai, The Vietnam Investment Review 7/15/2002).

Exhibit 2

Sugar Smuggling Estimates

Media Source:	Date:	Estimate:
Dow Jones Newswires	11/24/1999	300,000 tonnes in 1999
Asia Pulse*	11/26/1999	150,000 tonnes annually
Vietnam Investment Review	4/29/2002	1,000 tonnes daily
Vietnam Investment Review	1/06/2003	200,000 tonnes in 2002
Vietnam Investment Review	2/10/2003	100,000 – 200,000 tonnes annually

*Number confirmed by the Ministry of Agriculture and Rural Development (MARD)

Third, a protective tariff without the ability to secure borders results in sugar smuggling into Vietnam. Even if the borders are secured, the tariff does not encourage mills to become efficient and competitive. Although the reduction of the tariff is considered in the NPV analysis seen earlier, the assumption of the mill achieving full capacity after two years is effectively thwarted by the inability to obtain sugarcane due to reasons discussed in the previous two paragraphs. By 2002, many foreign investors were attempting to liquidate their investments or leave joint ventures altogether (Mai, The Vietnam Investment Review 7/15/2002).

ASSESSING POLITICAL RISK

What emerges from this case study is that political risk is more than a host country taking advantage of investment from foreign sources. Certainly, the host country's government can enact legislation that is specifically detrimental to foreign investors, but that is not the case with the sugar program in Vietnam. The Vietnamese government is unable to commission sugar mills of the appropriate size, contract farmers to grow sugarcane in the pre-specified regions, and provide appropriate infrastructure improvements. These are failings of the government implementing the sugar program and not direct legislation to extort money from foreign investors.

A second layer of risk emerges by the creation of policies that allow inefficient non-competitive sugar mills to be built and maintained. Because the state owned banks consistently forgive loans or restructure loans, the incentive for mills to be efficient by design or to strive for efficiency is lost. This is compounded by the import tariff that also thwarts competitive incentives to become efficient. Even if the government approves inefficient sugar mills, if left unimpeded, market forces will force the inefficient mills to cease operations. Because policies prevent the market to dictate efficiency, the small to medium size mills extract valuable resources from mills that have the capacity to be efficient.

A third layer of risk is the inability of Vietnam's legal system to patrol and punish sugar smuggling. The restrictive tariff was intended to protect the domestic sugar industry until it became viable. Unfortunately, because the Vietnamese border is so expansive, the tariff created an incentive for smuggling on a large scale. Numerous attempts to catch smuggling or to punish the use of smuggled sugar failed.

CONCLUSION

It is difficult to determine whether or not the sugar program would have been profitable for foreign investors, assuming sugar prices had not crashed during the late 1990s. After the introduction of the 1987 Foreign Direct Investment Act**,** Vietnam had been more productive and by many standards looked attractive for foreign direct investment (see figures in Appendix One). Crashing sugar prices are part of the risk of investment no matter where sugar mills are located.

However, the creation and perpetuation of non-competitive sugar mills would still be a factor because their existence prevents resources from being allocated to larger more efficient mills. Further, the restrictive tariff may still have encouraged sugar smuggling due to the inability to patrol the border. Ultimately, the political risk of investing in the sugar industry in Vietnam is due to several factors: the inability of the government to implement the stated objectives of the One Million Tonne Sugar Program, a banking/political structure that implements and maintains inefficiency, and an inability to patrol a large border to prevent smuggling.

NOTES

1. A tonne refers to a metric ton which is equivalent to 2,204.62 pounds or 1.102 U. S. tons.

2. Except when otherwise specified, the background information provided for this paper is from a December, 2001 World Bank report by the Centre for International Economics entitled: *Vietnam Sugar Program, Where Next?*

3. See Economist Intelligence Unit Country Report on Vietnam for October, 2001, page 16.

4. A hectare is 2.47 acres

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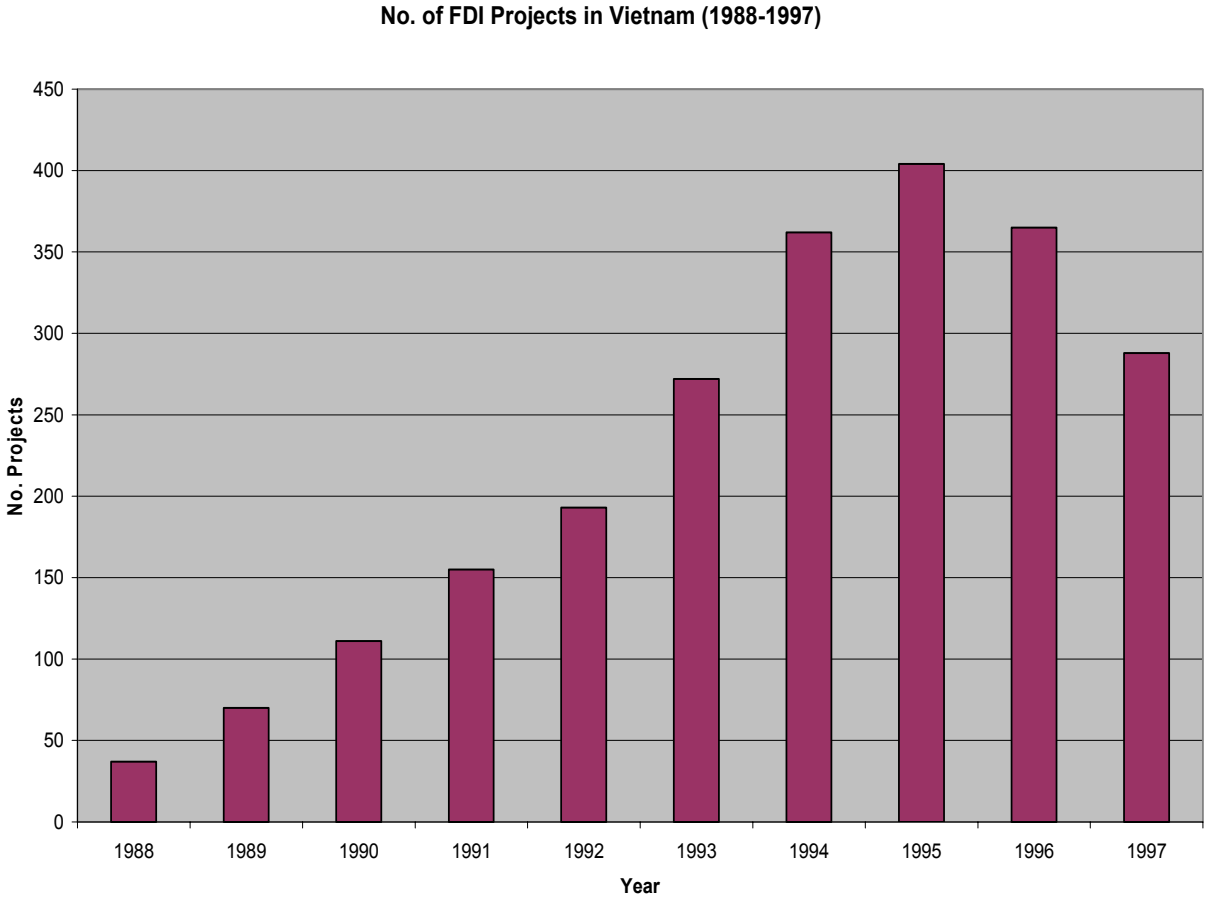
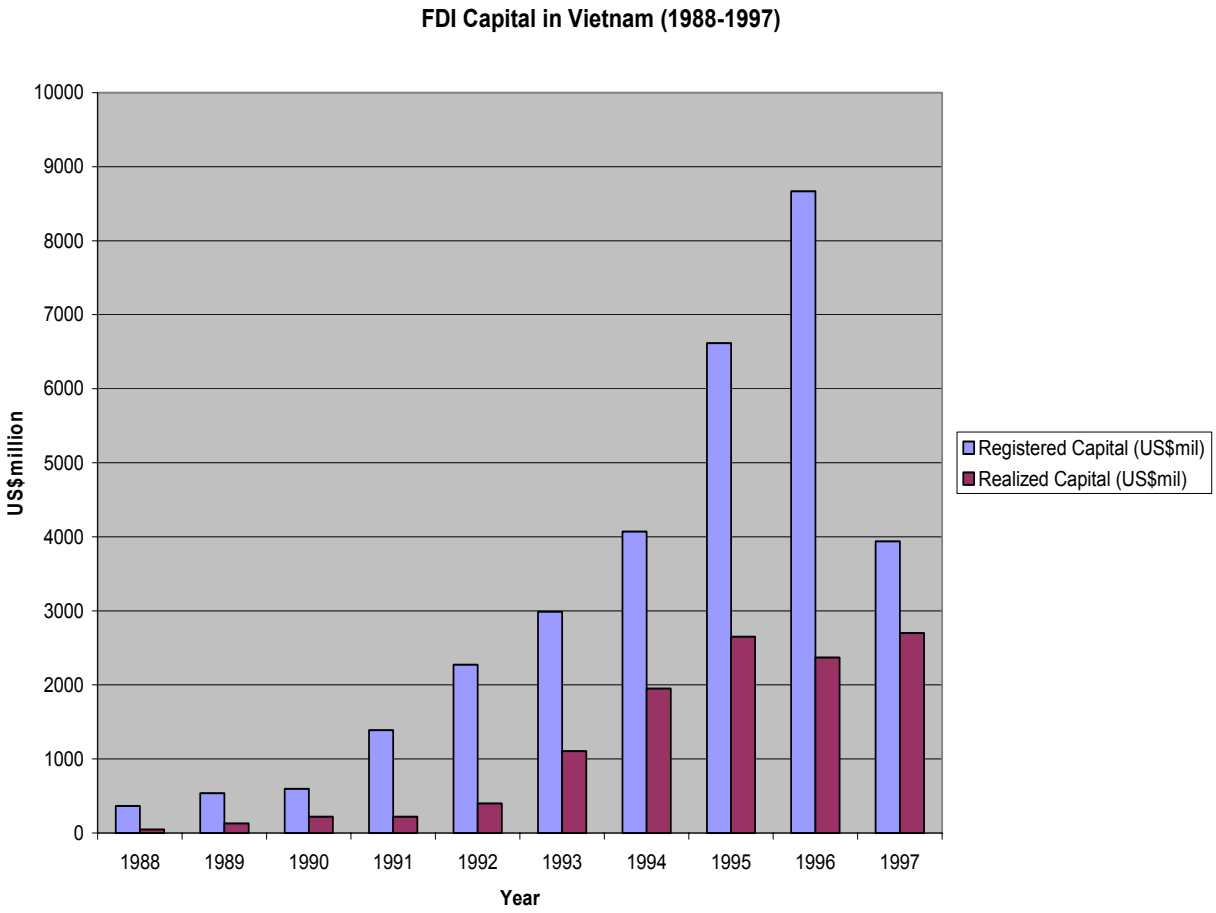
APPENDIX
Foreign Direct Investment Statistics for Vietnam

Figure 1A. Number of Foreign Direct Investment Projects (1988 – 1997)



Source: *Economic Development Review* (1998)

Figure 2A. Foreign Direct Investment Capital (1988 – 1997)

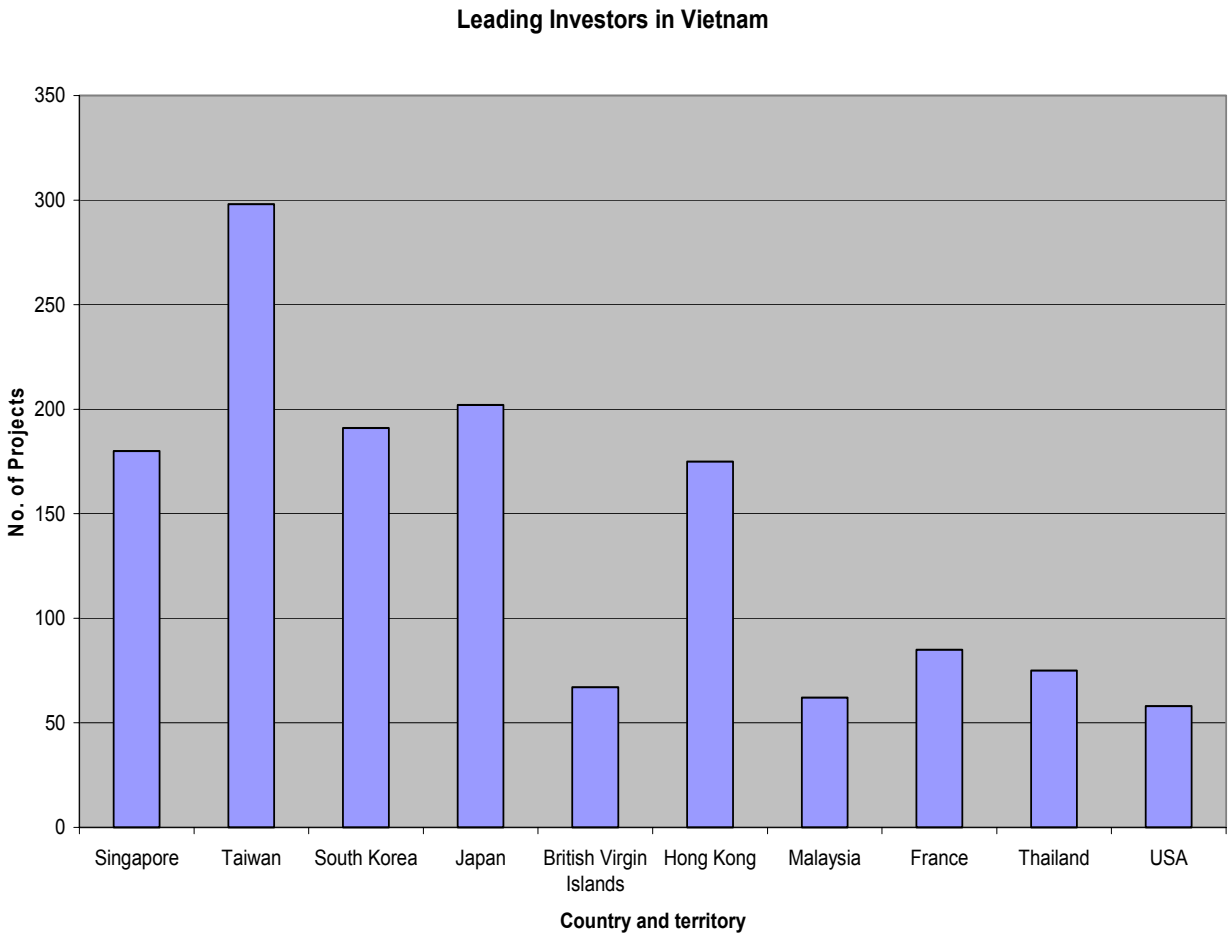


Source: *Economic Development Review* (1998)

Registered capital is the minimum value of committed capital nominated by foreign firms that receive a licence.

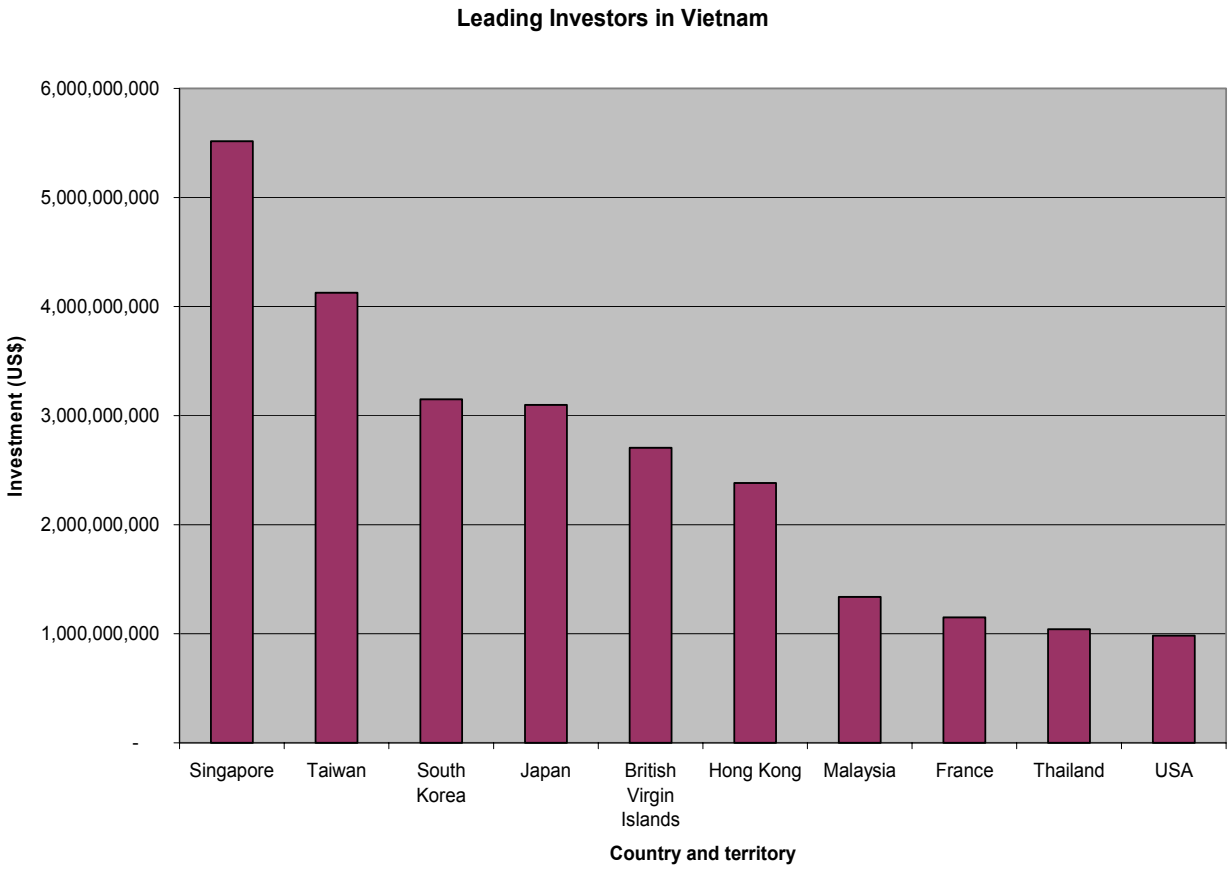
Realized capital is the amount foreign invested firms actually spend.

Figure 3A. Leading Investors (by Country) in Vietnam (Number of Projects)



Source: *Economic Development Review* (1998)

Figure 4A. Leading Investors (by Country) in Vietnam (US$)



Source: *Economic Development Review* (1998)

THORNY WOODS COUNTRY CLUB

Bert Stine, Stephen F. Austin State University
T. Parker Ballinger, Stephen F. Austin State University

Thorny Woods Country Club is located next door to Lowland Hills Public Golf Course. Historically, Thorny Woods made membership dues decisions without regard to the neighboring poorly maintained public golf course. The club simply raised dues as necessary to cover expenses. Over time, however, demand for quality golf courses increased, and Lowland Hills made substantial improvements to their course. As a result, a number of Thorny Woods members departed the club and joined Lowland Hills. Thorny Woods found itself in a situation where the dues were insufficient to cover its expenses, but each time it raised its dues, the club lost members to the public golf course. Several plans involving raising dues and cutting expenses will be discussed at the next board meeting. Lewis Forester, a graduate of the local university with degrees in economics and finance as well as a new member of Thorny Woods, has asked the board for permission to present an alternative plan that he believes will increase Thorny Wood's total revenues.

HISTORY OF THORNY WOODS COUNTRY CLUB AND LOWLAND HILLS PUBLIC GOLF COURSE

Thorny Woods Country Club is located two miles south of a small university town. The population of the town, including the university's student enrollment of 11,000, is approximately 35,000. The club began in 1951 as an eighteen-hole golf course and social club. Club members were primarily wealthy townspeople and membership represented social standing in the community. The club featured a well-maintained golf course and social amenities such as a gourmet chef and formal dining Thursday through Sunday nights. The club also offered a daily grill and bar for informal dining. Membership remained relatively constant and the monthly dues were adjusted as necessary to cover the expenses of the club. Each increase in dues resulted in increased revenues for the club.

Lowland Hills Public Golf Course is located next door to Thorny Woods Country Club. The public course was owned and operated by two brothers who were more interested in playing golf than in managing the course. Their philosophy was to operate at the lowest cost possible and bank any excess revenue. The result of this non-aggressive style of management was low green fees and a poorly maintained golf course. The clientele of Lowland Hills was very different than the clientele of Thorny Woods. The public course attracted primarily college students and occasional golfers from town. The typical Lowland Hills golfer was more concerned about the fee structure than the quality of the golf course so the management style of the two brothers fit the demands of the clientele. Because the expenses could be kept at a minimum without losing golfers, Lowland Hills was able to operate at a profit. The board of directors of Thorny Woods Country Club did not consider Lowland Hills a competitor and continued to increase the dues of its members without regard to the fee structure at Lowland Hills.

During the 1980s, demand conditions for golf memberships changed in the town. There was increased interest in the game and increased demand for quality golf courses. Previously, Thorny Woods was the only high quality golf course in town, but to play there, one had to be a member of the country club. Newer members of the club were not attracted by the social amenities Thorny Woods offered. They were more interested in playing on a good golf course. During this time period, the ownership and management of Lowland Hills Public Golf Course transferred to a golf course management group based in Houston, Texas. The management group decided to compete more aggressively with Thorny Woods Country Club. The new ownership of Lowland Hills began to finance significant course improvements and became competitive with the Country Club. As course improvements were made at Lowland Hills, many Thorny Woods members not particularly attracted to the social amenities of the club began to depart and join Lowland Hills. Golfers new to the game and not interested in paying for the amenities of a private club also joined the lower priced Lowland Hills. The net result was the demand for membership in Thorny Woods declined while demand for membership in Lowland Hills increased.

Thorny Woods found itself in a situation where membership dues were insufficient to cover expenses, but each time it raised its dues, the club lost members to the public golf course. Several alternative plans involving raising dues and cutting expenses will be discussed at the next board meeting. Lewis Forester, a graduate of the local university with degrees in economics and finance as well as a new member of Thorny Woods, has asked the board for permission to present an alternative plan that he believes will increase Thorny Wood's total revenues. Fortunately, Lewis Forester had stayed in touch with his former economics professor Dr. Richard Walker. Lewis has asked Dr. Walker to help him prepare for the presentation by reviewing the under lying economic principles.

DR. RICHARD WALKER'S ADVICE

Lewis Forester visited his old professor, Dr. Richard Walker, at his home one evening and explained Thorny Woods history and current problems. Dr. Walker listened quietly and finally asked if Lewis had estimated the demand functions for each golf course. Lewis said that he had, in fact, had estimates of the demand functions both prior to and after 1980. Walker asked to see the demand functions prior to 1980.

Thorny Woods: $Q_{TW} = 540 - 2.5P_{TW} + 2P_{LH}$ **Equation 1**

Lowland Hills: $Q_{LH} = 350 - 5P_{LH} + 4P_{TW}$ **Equation 2**

Lewis also told Dr. Walker that operating costs at Thorny Woods prior to 1980 were initially $48,400 and increased by $1000 twice in subsequent years and that, prior to 1980, Lowland Hills maintained relatively constant membership dues of $85. Dr. Walker thought a bit and started to sketch a table. He handed his sketch (Exhibit 1) to Lewis and suggested he complete it for the various membership dues.

Exhibit 1.
Thorny Woods Demand Schedule and Corresponding Revenue and Elasticity Calculations

P_{TW}	Q_{TW}	Total Revenue	Price Elasticity of Demand
$110			
$115			
$120			
$125			
$130			
$135			
$140			
$145			
$150			

Where: Q_{TW} is quantity demand of memberships at Thorny Woods, Q_{LH} is quantity demanded of membership at Lowland Hills, P_{TW} is the price of membership (membership dues) at Thorny Woods, and P_{LH} is the price of membership (membership dues) at Lowland Hills.

Upon doing so, Lewis quickly understood how membership dues were derived for the operating costs of $48,400, $49,400, and $50,400. Lewis could also see why, given the price elasticity of demand, increasing membership dues effectively dealt with the increases in operating costs prior to 1980. It was quickly apparent, however, why such a strategy might not work in the future.

Dr. Walker also thought it might be useful to demonstrate to the board why Lowland Hills' non-aggressive management style was so "successful" prior to 1980. During this period, Lowland Hills was not maintained as well as Thorny Woods and never provided any social amenities. As a result, its operating costs were significantly lower and equal to $20,000. Dr. Walker suggested that Lewis prove to the board that it was Thorny Woods increasing membership dues that resulted in higher profits for Lowland Hills despite the fact that Lowland Hills had never changed its membership dues from $85.

Dr. Walker suggested that both golf courses would have been better off had they selected membership dues based on the simple model of price competition with differentiated products. Lewis thanked Dr. Walker for his advice and left. When he got home, Lewis pulled down an old microeconomics textbook from his shelf and reviewed the model his former professor had suggested. He then sat down and derived the best response function for each golf course, given that operating costs for Thorny Woods and Lowland Hills was $50,400 and $20,000, respectively, and graphed them. Sure enough, both golf courses would have been better off (maximized profits) had they selected membership dues based on this simple model. He thought a while and after a time a business strategy formed in his head. He began to prepare his presentation to the board of directors.

LEWIS FORESTER'S PRESENTATION

The first part of Lewis's presentation consisted of consisted of Dr. Walker's suggested economic analysis of the two courses prior to 1980. Since 1980, however, demand conditions for golf

memberships changed. Quality improvements at Lowland Hills resulted in the defection of Thorny Woods members not interested in paying higher dues to belong to a golf and social club. Also, individuals, in general, displayed a newfound interest in golf and these new players tended to join Lowland Hills. The net effect was that demand for memberships at Thorny Woods fell and demand for memberships at Lowland Hills increased. Lewis provided the board with his estimates of the demand functions since 1980.

Thorny Woods: $Q_{TW} = 465 - 2.5P_{TW} + 2P_{LH}$ **Equation 3**

Lowland Hills: $Q_{LH} = 500 - 5P_{LH} + 4P_{TW}$ **Equation 4**

Lewis also explained that total operating costs at Lowland Hills increased to $30,000, because it was more costly to maintain a higher quality golf course. At the same time total operating costs at Thorny Woods increased to $51,400. Lewis easily convinced the board, given P_{TW} = $140, P_{LH} = $85, that Thorny Woods could no longer cover its total operating costs as a result of the changes in demand. In addition, the previous strategy of simply increasing membership dues would only result in further deterioration Thorny Wood's profits.

Lewis reminded the board that the new owners of Lowland Hills wanted to compete more aggressively with Thorny Woods for members. The professional management group undoubtedly had the same demand function estimates shown above. Given this, Lewis explained that Thorny Woods best strategy is to select a price consistent with profit maximizing behavior as described in the model of price competition with differentiated products. He then recommended a business strategy that most members of the board considered correct.

One board member, however, was not quite convinced. He asked Lewis, “Who’s to say that once we select the so-called profit maximizing membership dues, Lowland Hills won’t simply lower its membership dues and lure away some of our members or potential members?” Lewis went on to explain that the profit maximizing prices of each golf course constitute what is known as Nash equilibrium. Lewis convinced this board member that such a strategy would not make sense to Lowland Hills by showing him what would happen to Lowland Hills' profits if it lowered its membership dues to $100 and Thorny Woods does not react.

QUALIFIED FOREIGN INSTITUTIONAL INVESTORS IN CHINA

Congsheng Wu, University of Bridgeport

On April 24, 2003, David Wong, the newly appointed director of HSBC (formerly Hong Kong and Shanghai Banking Corporation) in Hong Kong, was anxiously following the latest updates about the deadly SARS (or Severe Acute Respiratory Syndrome) epidemic that had caught the world attention since the beginning of the year. Thanks to the travel ban to China issued by the World Health Organization, Mr. Wong had cancelled a planned business trip to Beijing, the epicenter of the biggest SARS outbreak. His planned itinerary included field visit to several publicly-traded companies in which HSBS was interested. In late 2002, the Chinese authorities finally approved the long-awaited qualified foreign institutional investors (QFII) scheme. The QFII scheme would allow foreign investors that satisfy designated qualifications to invest in A-shares, which until now had been open only to Chinese domestic investors.

Headquartered in London, HSBC Holdings plc was one of the largest banking and financial services organizations in the world. HSBC's international network comprised over 9,500 offices in 79 countries and territories in Europe, the Asia-Pacific region, the Americas, the Middle East and Africa. Established in Hong Kong and Shanghai in 1865, HSBC was unique among foreign banks in having had a continuous presence in mainland China for 138 years. At present, HSBC was the largest foreign bank in mainland China (see Exhibit 1).

HSBC submitted its application for the QFII status to China's Securities Regulatory Commission (CSRC) in early 2003. Other large banks such as UBS Warburg, Nomura Securities, Morgan Stanley Co. International, Citibank Global Finance, Goldman Sachs and Deutsche Bank had also submitted their applications. In March, HSBC Holdings plc was among a group of foreign and local banks appointed as custodians charged with providing securities settlement and custody services for QFIIs.

While anxiously waiting for the approval of its application, Mr. Wong had to think about how to play the Chinese stock market. Once the application was approved, investing opportunities would become available as early as in June of 2003.

CHINA'S STOCK MARKET

China began its economic reforms in 1979. It had become the largest emerging market in the world. Its major macroeconomic figures and capital market data as of 2002 are presented in Exhibit 2.

Beginning in 1984, selected state-owned enterprises were given authorization to reorganize as joint-stock companies and to issue securities. The first stock exchange, Shanghai Stock

Exchange was established in Shanghai in 1990 to allow investors to trade shares of newly privatized former stated owned enterprises. The Shenzhen Stock Exchange was founded one year later in 1991. Shenzhen, which bordered Hong Kong, was the first "special economic zone." The Shanghai and Shenzhen stock exchanges remained the only ones in China.

Listed companies in China could issue five types of shares: A shares, B shares, C shares, H shares, and depositary-type shares, though not all companies issued all of the five types of shares. Different types of shares had the same claim on the cash flows of the issuing firms, but they were completely segmented in the sense that one could not be converted to another.

Each type was designed for a specific clientele of investors. Almost all listed companies issued A shares, which had been limited to domestic investors until now. The B-share market was opened in 1992 to allow foreign investors with a legal channel to invest in China's equity markets. B shares were traded in U.S. dollars on the Shanghai exchange and in Hong Kong dollars on the Shenzhen exchange. The distinction between A-shares and B-shares--originally restricted for local and foreign investors respectively--had blurred in recent years. In March 2001, Chinese regulators opened the B-share market to domestic investors with legitimate foreign currency accounts. However, the A- and B-share markets remained completely segmented in the sense that B shares were not convertible to A shares, and vice versa.

C shares were called legal entity shares and could only be traded among Chinese institutions, enterprises and departments with a legal person status. C shares were not listed on the two official exchanges, but a very small number were traded over-the-counter on the Security Trading and Automatic Quote System (STAQS) and National Electronic Trading System (NETS).

In July 1993, Chinese companies were allowed to list on the Hong Kong Stock Exchange and shares they issued in Hong Kong were named H shares. Selected companies had also floated their shares on the New York Stock Exchange (NYSE) and Nasdaq in the form of American Depository Receipts (ADRs). Entering the global capital markets had been an instructive and beneficial experiment for these companies.

By the end of 2002, there were more than 1220 listed companies in China, 1085 of which had A shares only, 87 had both A and B shares, and 24 had B shares only. Moreover, 75 companies were listed in Hong Kong and 17 were listed in the United States in the form of ADRs. Exhibit 3 compares the size of the China's stock market with those of others in U.S. and Asia.

FOREIGN FINANCIAL INSTITUTIONS IN CHINA

Traditionally, China had not provided a particularly friendly environment for foreign banks. This was largely a result of the efforts by the People's Bank of China to reap the benefits of allowing foreign banks market access without permitting them to disrupt the domestic banking system. Despite the difficult operating environment, foreign banks kept coming, lured by the vast potential market, especially since China's entry into the World Trade Organization (WTO) in 2001.

As of the end-October 2002, foreign banks had 181 branches in China. Fifty-three foreign banks were approved to conduct limited business in the local currency, renminbi, as of early January 2003.

In accordance with China's WTO commitments, foreign banks were gradually being allowed greater freedom both in permissible areas of business and geographical scope for their investments. Foreign banks, so far limited to doing business in the local currency with foreign

companies, would be allowed to conduct business in renminbi with Chinese enterprises in late 2003 and with local individuals in late 2006.

PROVISIONAL MEASURES OF THE QFII SCHEME

In late 2002, the Chinese authorities approved the long-awaited qualified foreign institutional investors (QFII) scheme. The QFII scheme would allow foreign investors that satisfy designated qualifications to invest in A-shares, though no single QFII was to be allowed to hold more than 10% in a listed company, and the total cap on QFII ownership of individual shares was 20%.

Regulations covering QFIIs were issued jointly by the China Securities Regulatory Commission (CSRC) and the People's Bank of China on November 7, 2002 and went into effect on December 1 of the same year, though no QFII had yet been approved. The English version of this regulation is presented in the Appendix.

Under the regulation, QFII applications must be submitted through an approved "custodian bank," which was charged with converting currencies, overseeing the QFII and reporting on its investments to ensure compliance with restrictions barring participants from removing their money for a specified period of at least two years. According to the Provisional Measures, applicants must meet a series of requirements, including

- They must fall into the categories of fund management companies, securities companies, insurance firms or other fund-management institutions, including commercial banks.
- They must have managed at least $10 billion in securities in the last fiscal year prior to approval.
- They must be financially stable, have good credit standing, and have effective risk-control and governance systems.
- They must be located in a country governed by a securities regulatory agency with which the CSRC had entered into an agreement on co-operation in the regulatory field.

The provisional measures also set specific requirements for applicants, depending on their core business nature. Fund-management companies must have been in business for at least five years; securities companies and insurance companies must have a business history of at least 30 years, and must also have paid-in capital of at least US$1 billion; commercial banks must be among the 100 largest banks in the world.

From December 1, 2002, the China Securities Regulatory Commission began accepting applications from foreign institutions. The State Administration of Foreign Exchange (SAFE) was responsible for approval of foreign-exchange quota to be used for securities investment ranging from US$50 million to US$800 million.

In a statement dated March 19, 2003, the China Securities Regulatory Commission clarified for the first time that qualified foreign institutional investors could invest in initial public offerings, additional share offerings, rights issues, and convertible bond offerings. It added that participants could also invest freely in closed-end and open-end securities funds. The statement also lengthened the list of foreign institutions that could participate as QFIIs to include trust firms and foreign governmental investment institutions. Previously, only commercial banks, securities firms, insurers, and fund managers were invited to apply.

HOW TO PLAY THE CHINA MAKET

China was one of the largest emerging markets in the world. In the past decade, the Chinese economy grew at an annual rate of over 10 percent. After joining the World Trade Organization in 2001, China had promised to improve its securities market for foreign investors. However, for all of China's rapid economic growth, its stock market had been mostly negative news for foreign investors. First of all, China had placed a number of explicit or implicit restrictions on cross-border capital flows. Like many other emerging markets, the Chinese government had been very cautious in its efforts to attract foreign portfolio investment in its developing stock market. This was in sharp contrast to its efforts to attract foreign direct investment. In the 1990s, China attracted more than $300 billion in foreign direct investment (FDI), second only to the U.S. In 2003, China would surpass the U.S. to become the biggest recipient of FDI. Its capital market, however, is half-closed. Many economists and government officials feared that excessive capital inflows could promote unsustainable booms that ultimately could result in economic contractions and exchange rate collapses when foreign capital retreated. Until now foreign investors had been limited to B shares only, which represented a small portion of the Chinese stock market.

Secondly, the vast majority of shares were still owned by the government, yet the role of the state as a shareholder had not been clearly defined and well represented. Foreign investors feared that their minority interests were not protected. As a result, international investors with a taste for China preferred to buy Chinese shares that were listed in Hong Kong and the United States.

Lastly, concerns about the quality of listed companies had dampened foreign demand for Chinese shares. Lack of appropriate corporate governance in listed companies imposed severe agency problems. Financial information was not transparent and financial statements did not follow generally accepted accounting standards.

Were China's financial markets ready for foreign investors? What was the best way to play the China market? At least four alternatives were under Mr. Wong's consideration: 1) buy B shares; 2) buy H shares and ADRs issued by Chinese companies; 3) buy shares of multinational enterprises that had significant exposure to China; and 4) buy A shares.

Buy B shares

China had allowed foreign investors to buy and sell dollar-denominated B shares for more than ten years, but the B-share market never attracted much attention, mainly because of the limited access to and low quality of the listed companies. Only 111 out of around 1200 listed firms had issued B shares in China. Liquidity in the B share market remained low. Trading was much more active in A shares than in B shares, and thin trading occurred more often for B shares than for A shares.

Interestingly, the price of A shares had been significantly higher than that of B shares issued by the same company. The difference had narrowed down significantly ever since Chinese investors were allowed by the government to buy and sell B shares in early 2001. Nevertheless, since the two markets were totally segmented, it was impossible for investors to capitalize on the price difference through arbitrage activities.

Buy Chinese Shares Listed in Hong Kong or America

Dozens of Chinese companies had been listed on the Hong Kong Stock Exchange. Selected companies had also floated their shares on the NYSE and Nasdaq in the form of American Depository Receipts (ADRs). ADRs were negotiable certificates that represent a foreign company's publicly traded equity. ADRs were created when a foreign company's shares were purchased abroad and delivered to a custodian bank, usually a major money-center commercial bank such as the Bank of New York and the Citibank. The depository bank then issued the ADR, which may represent a multiple or a fraction of the deposited shares. Investors of ADRs had a legal claim on the cash flows of the deposited shares.

Currently, Chinese companies must obtain government authorization to be listed abroad. In general, emerging country companies listed abroad tended to be the largest firms in their countries. Chinese ADRs listed on NYSE/Nasdaq are presented in Exhibit 5. Most of them were former state-owned enterprises that had been privatized.

ADRs offered a number of benefits to investors seeking international diversification. Buying ADRs were convenient, because they were traded just like other ordinary shares. Trading costs were lower. The currency of quotation for shares listed in the United States was the U.S. dollar and dividends were paid to investors in dollars as well. The custodian bank was responsible for the distribution of financial statements to investors. Full disclosure of company information was required by the Securities and Exchange Commission (SEC), and was provided in the English language. More importantly, ADRs allowed for investment in countries that had restricted access to their primary equity market.

Buy shares of multinational companies that have significant exposure to China

Foreign investors may find less risk in stocks of multinational companies that had significant exposure to the Chinese market. The idea was that the benefits of global diversification could be obtained indirectly through owning shares of multinational corporations based in Hong Kong, Taiwan, Singapore, South Korea, or the United States. These companies had extensive investment activities in China. Moreover, these stock markets were open to foreign investors and more mature than their Chinese counterpart.

A Wall Street Journal (January 9, 2003) article, entitled "Best Route to China May Be Indirect One," admitted that though the China market was a gigantic one, there were few ways to play it. According to the article, most U.S. investors interested in China had bought H shares or ADRs issued by Chinese companies. These companies had to comply with international accounting and corporate governance rules. The best way to participate in China was indirectly: owning Taiwanese, South Korean, Singaporean and other Asian companies that had moved facilities to mainland China to take advantage of low-cost production or export a bulk of their sales there.

However, previous empirical research found in the finance literature suggested that the diversification effect through shares of multinational corporations was poor. For instance, shares of U.S.-based multinational corporations tended to be more correlated with the U.S. market than with the emerging markets in which they invested.

Buy A shares through the QFII scheme

The first three channels gave foreign investors very limited access to the Chinese market. The newly approved QFII scheme would allow overseas investors to participate directly in China's A-share market for the first time.

RISK FACTORS

Many foreign banks had indicated that they needed to make a thorough study of the relevant regulations and rules before a final decision was made, and investment opportunities and risks must be carefully considered as well. When the QFII policy was first announced, Goldman Sachs (Asia) predicted that both foreign institutions and overseas fund managers would be less interested in entering in Chinese stock market when they understood the difficulties involved in getting the QFII status.

Reasons for their judgments included an excessively high price/earnings ratio, less than transparent disclosure of information, and the troubled management structure of listed companies as well as the structural problems of the stock market as a whole. An important reason that foreign investors showed little interest in China's stock market was they knew too little about it and the companies listed on it. The limited amount of negative information naturally led to a lack of confidence in China's securities market. Indeed, there were certain risks and obstacles that must be considered when contemplating portfolio investment in China.

Corporate governance

The majority of China's listed companies were former state-owned enterprises (SEOs). It was hoped that through incorporation and listing, SEOs would finally be separated from the government. In the mean time, however, the government wanted to retain share ownership in these companies and a majority shareholding in large companies. For example, 71% of the 308 companies that went public between December 1986 and January 1996 reported government ownership ranging from 10% to 88%. However, the 89 companies that did not report government ownership were actually owned by other state-owned companies. Government shares were retained in the state institutions and government departments and were non-tradable. At the national level, the State Council acted as the ultimate owner of state-owned enterprises on behalf of the Chinese people, with the National Administrative Bureau of State-owned Property acting as the agent. Similar bodies existed in provinces and cities. An intermediate tier was composed of provincial- and municipal-level state-asset holding companies. In the new organizational structure, the lines of authority were unclear. In many cases, board members and senior executives were nominated by these government bodies. The lack of clear identification of the owners of government shares undermined corporate governance because it left open the issue of who should be monitoring the managers. As long as the state retained a majority interest in listed companies, effective corporate governance mechanisms may be slow to develop.

Without effective corporate governance and monitoring, managers of the newly incorporated companies would be able to exercise de facto control over the companies. This may lead to undesired problems that ranged from reduced work efforts to even corruption. Numerous corruption cases involving corporate officers had been exposed to the public in China's recent

endeavor to fight against corruption. China's biggest challenge was to build institutions that could function effectively in a market-based economy and to develop the rule of law.

Information barrier

Getting reliable, timely financial information on companies from emerging markets was tough due to a lack of stringent accounting practices. Financial statements in emerging markets seldom followed generally accepted accounting standards. Accounting in China was strikingly different from the old accounting system that was designed to serve the centrally-controlled economy. The economic reform that had transformed the planned economy to a market-oriented economy created a demand for upgrading the national standards of accounting practice. The new accounting standards that had been issued by the government closely resembled those in developed economies. However, the transition to generally accepted accounting standards had not been smooth due to practical problems in implementation.

Fortunately, foreign firms with American Depositary Receipts that traded on U.S. exchanges were required to file a form 20-F with the Securities and Exchange Commission (SEC). The 20-F, available from the company, was an annual report that contained financials and key information about the business. Most foreign firms, even those trading in the United States, still did not release quarterly results. At best, they released results twice yearly.

Currency risk

Currency risk existed on all foreign currency-denominated investments. Gains from foreign investments could easily be wiped out if the foreign currency depreciated sharply against the U.S. dollar. The Chinese currency, yuan, had been pegged to the U.S. dollar at around 8.28 per dollar since 1994. However, recently there had been increasing pressure on the Chinese government to revalue its currency and allow it to float. Calls for revaluation of the yuan had been coming from the U.S. manufacturing sector, government officials, and economists. Many U.S. manufacturers claimed that they had suffered from low-priced Chinese competition, while others had to consider moving part of their production offshore to China in order to remain competitive. Many economists argued that the yuan was grossly undervalued and as a result Chinese exports were artificially competitive, leading to the largest bilateral trade deficit with China.

Meanwhile, the Chinese government vehemently defended its current policy of pegging the yuan to the dollar. China's central bank had ruled out any immediate change of its present pegging policy. The nation needed to "maintain the stability of the yuan, which will provide the foundation to continuously improve the exchange-rate mechanism," the People's Bank of China said in a statement on its website. Many had thrown their support behind China's policy of maintaining the yuan at current levels amid growing international pressure for its revaluation. For example, European Central Bank council member Ernst Weltete said that China shouldn't make abrupt changes to its decade-old U.S. dollar peg as the country's banks were not equipped to cope with currency fluctuations.

Though there were no signs of immediate change in its current currency policy, China had promised as a condition to enter into the World Trade Organization to make the yuan convertible and allow it to float in the future. But many agreed that full convertibility of the yuan was out of the question in the near future.

Exhibit 1
Top Ten Foreign Banks in China
(Ranked by number of branches as of June 2003)

Bank	Origin	Number of Branches	Number of Representative Offices
HSBC	UK	9	2
Bank of East Asia	Hong Kong	8	6
Standard Chartered Bank	UK	7	6
Nanyang Commercial Bank	Hong Kong	6	0
Sumitomo Mitsui Banking Corp	Japan	5	4
Bank of Tokyo Mitsubishi	Japan	5	3
BNP-Paribas	France	5	0
Société Générale	France	5	1
OCBC	Singapore	4	2
JP Morgan Chase	U.S.	4	1

Source: Economist Intelligence Unit (EIU).

Exhibit 2
China at a Glance, as of 2002

Population, mid-2002 (million)	1,284.30
Sovereign debt ratings:	
Standard & Poor's:	BBB
Moody's Investors Service:	A3
Fitch:	A-
Economic Assessment (2002)	
GDP (RMB bn at constant 1990 prices)	5,647
GDP growth (%change)	8.0
Private consumption(% change)	5.5
Government consumption (% change)	6.0
Exports of goods and services (% change)	14.3
Imports of goods and services (% change)	17.9
Exports (US$ bn)	325.7
Imports (US$ bn)	281.5
Current-account balance (US$ bn)	35.4
Exchange rate (RMB/US$)	8.28
Consumer prices (% change)	-0.8
Demand for financial services	
Gross domestic product (US$ bn)	1,287.25
Gross domestic product per person (US$)	1,000
Gross domestic savings (US$ bn)	541.93
Personal disposable income, (US$)	558
Private consumption per person (US$)	454
Capital Markets	
Equity market capitalization (% of GDP)	38.20
of which Shanghai	26.09
of which Shenzhen	12.11
New Equity capital raised (% of GDP)	16.40
International corporate debt market issues outstanding (% of GDP)	0.93
Mutual –fund assets (% of GDP)	1.14

Source: Economist Intelligence Unit (EIU).

Exhibit 3
Size of China's Stock Markets and Others in U.S. and Asia

	Market Capitalization, in $ billions	Average daily value of shares traded, in $ millions	Liquidity
U.S. (NYSE)	9,060	40,478	9.8%
Japan (TSE)	2,065	5,418	6.5
China (A shares)	505	842	5.7
Hong Kong (HKE Mainboard)	460	1,403	3.6
Australia (ASX)	374	1,230	6.7
Taiwan (TWSE)	264	2,577	20.2
Korea (KSE)	220	2,448	23.5
Singapore(SGX-ST)	107	247	5.2
China (B shares)	11	46	8.9

All market capitalization figures are as of October 2002. Trading value figures are through December 16, 2002. Liquidity is the average monthly trading value in 2002 divided by October market capitalization.
Source: Wall Street Journal, January 9, 2003.

Exhibit 4
Glossary of Chinese Stocks

Type	Percentage of total market capitalization	Descriptions
A shares	54%	Companies listed on the Shanghai and Shenzhen stock exchanges that were available to domestic investors only. They were newly available to qualified foreign institutional investors (QFIIs) in 2003.
Red Chips	16%	Offshore companies with direct or indirect substantial ownership by a mainland Chinese entity. Listed on the Hong Kong exchange.
A and H shares	10%	Chinese companies that had issued both A and H shares.
H shares only	10%	Companies registered in China but listed only on Hong Kong exchange. Traded in HK dollars.
A and B shares	7%	Companies that were listed in both the A- and B- share markets.
P shares	1%	Referred to stock of company set up by Chinese private entrepreneurs.
Others	1%	

Source: Wall Street Journal, January 9, 2003

Exhibit 5
American Depositary Receipts from China Listed on NYSE/Nasdaq

Company	Symbol	Exchange	ADR Ratio	Industry	Effective Date
Aluminum Corp. of China	ACH	NYSE	1:100	Mining & Metals	Dec 5, 2001
Brilliance China Automotive Holdings	CBA	NYSE	1:100	Auto Manufacturers	Apr 17, 2000
China Eastern Airlines Corp.	CEA	NYSE	1:100	Airlines	Jan 30, 1997
China Mobile (HK), Ltd	CHL	NYSE	1:5	Wireless Comm.	Oct 16, 1997
China Petroleum & Chemical Corp.	SNP	NYSE	1:100	Energy	Oct 18, 2000
China Southern Airlines Co.	ZNH	NYSE	1:50	Airlines	Jul 24, 1997
China Telecom Corp.	CHA	NYSE	1:100	Fixed Line Comm.	Nov 06, 2002
China Unicom, Ltd	CHU	NYSE	1:10	Wireless Comm.	Jun 16, 2000
China National Offshore Oil Corp.	CEO	NYSE	1:20	Energy	Feb 19, 2001
Guangshen Railway Co.	GSH	NYSE	1:50	Industrial Transport	May 1, 1996
Huaneng Power International, Inc.	HNP	NYSE	1:40	Electric Utilities	Aug 19, 2003
Jilin Chemical Industrial Co.	JCC	NYSE	1:100	Chemicals	May 1, 1995
PetroChina Company	PTR	NYSE	1:100	Energy	Mar 30, 2000
Beijing Yanhua Petrochemical Co.	BYH	NYSE	1:50	Chemicals	Jun 20, 1997
Shanghai Petrochemical Co.	SHI	NYSE	1:100	Energy	Jul 1, 1993
Yanzhou Coal Mining Company	YZC	NYSE	1:50	Energy	Mar 27, 1998
Netease.com, Inc.	NTES	NASDAQ	1:100	Technology Services	Jun 29, 2000

Source: The Bank of New York's web site (www.adrbny.com)

APPENDIX

Provisional Measures on Administration of Domestic Securities Investments of Qualified Foreign Institutional Investors (QFII)

China Securities Regulatory Commission
People's Bank of China

Chapter 1. General Provisions

Article 1. Based upon China's relevant laws and administrative regulations, this Regulation was promulgated for the purpose of governing Qualified Foreign Institutional Investors' investments in China's securities market and promoting developments of China's securities market.

Article 2. Qualified Foreign Institutional Investors (hereinafter referred to as "QFII" which can be a single or a plural, as the case may be) are defined in this Regulation as overseas fund management institutions, insurance companies, securities companies and other assets management institutions which have been approved by China Securities Regulatory Commission (hereinafter referred to as "CSRC") to invest in China's securities market and granted investment quota by State Administration of Foreign Exchange (hereinafter referred to as "SAFE").

Article 3. QFII should mandate domestic commercial banks as custodians and domestic securities companies as brokers for their domestic securities trading.

Article 4. QFII should comply with laws, regulations and other relevant rules in China.

Article 5. CSRC and SAFE shall, in accordance with the laws, supervise and govern the securities investing activities undertaken by QFII within the jurisdiction of China.

Chapter 2. Qualifications, Criteria and Approval Procedures

Article 6. A QFII applicant should fall within the following criteria:
1. The applicant should be in sound financial and credit status, should meet the requirements set by CSRC on assets size and other factors; and its risk control indicators should meet the requirements set by laws and securities authorities under its home jurisdiction;
2. Employees of the applicant should meet the requirements on professional qualifications set by its home country/region;
3. The applicant should have sound management structure and internal control system, should conduct business in accordance with the relevant regulations and should not have received any substantial penalties by regulators in its home country/region over the last three years prior to application;
4. The home country/region of the applicant should have sound legal and regulatory system, and its securities regulator has signed Memorandum of Understanding with CSRC and has maintained an efficient regulatory and co-operative relationship;
5. Other criteria as stipulated by CSRC based on prudent regulatory principles.

Article 7. The criteria of assets scale and other factors as referred to in the aforesaid article are:
For fund management institutions: Having operated fund business for over 5 years with the most recent accounting year managing assets of not less than US$10 billion;
For insurance companies: Having operated insurance business for over 30 years with paid-in capital of not less than US$1 billion and managing securities assets of not less than US$10 billion in the most recent accounting year;

For securities companies: Having operated securities business for over 30 years with paid-in capital of not less than US$1 billion and managing securities assets of not less than US$10 billion in the most recent accounting year;
For commercial banks: Ranking among the top 100 of the world in the total assets for the most recent accounting year and managing securities assets of not less than US$10 billion.
CSRC may adjust the aforesaid requirements subject to the developments of securities market.
Article 8. To apply for QFII qualification and investment quota, an applicant should submit the following documents to CSRC and SAFE respectively through its custodian:
1. Application Forms (including basic information on the applicant, investment quota applied for and investment plan, etc.);
2. Documents to verify that the applicant meets requirements set in Article 6;
3. Draft Custody Agreement signed with its expected custodian;
4. Audited financial reports for the most recent 3 years;
5. Statement on sources of the funds, and Letter of Undertaking promising not to withdraw funds during the approved period;
6. Letter of authorisation by the applicant;7. Other documents as required by CSRC and SAFE.
All the aforesaid documents, if written in languages other than Chinese, must be accompanied by their Chinese translations or Chinese extracts.

Article 9. The CSRC shall, within 15 working days from the date the full set of application documents are received, determine whether to grant approval or not. Securities Investment Licences will be issued to those applicants whose applications have been approved whereas written notices will be given to those applicants whose applications have been rejected.

Article 10. Applicants shall apply to the SAFE through their custodians for investment quotas after obtaining the Securities Investment Licenses.
SAFE shall, within 15 working days from the date full set of application documents are received, determine whether to grant approval or not. Applicants whose applications have been approved will be notified in writing their permitted investment quotas and Foreign Exchange Registration Certificates will be issued. Written notices will be given to those applicants whose applications have been rejected.
The Securities Investment Licence will automatically become void if an applicant is unable to obtain the Foreign Exchange Registration Certificate within one year after the Securities Investment Licence is granted.

Article 11. In order to encourage medium and long-term investments, preference will be given to the institutions managing closed-end Chinese funds subject to the requirements of Article 6 or pension funds, insurance funds and mutual funds with good investment records in other markets.

Chapter 3. Custody, Registration and Settlement

Article 12. A custodian should meet the following requirements:
1. Has a specific fund custody department;
2. With paid-in capital of no less than RMB 8 billion;
3. Has sufficient professionals who are familiar with custody business;
4. Can manage the entire assets of the fund safely;
5. Has qualifications to conduct foreign exchange and RMB business;
6. No material breach of foreign exchange regulations for the recent three years.
Domestic branches of foreign-invested commercial banks with more than three years of continual operation are eligible to apply for the custodian qualification. Their paid-in capital eligibility shall be based on their overseas headquarters' capital.

Article 13. Approvals from CSRC, People's Bank of China (hereinafter referred to as "PBOC") and SAFE are required for custodian status.

Article 14. Domestic commercial banks should submit the following documents to CSRC, PBOC and SAFE to apply for custodian status:
1. Application Forms;
2. Copy of its financial business licence;
3. Management system in relation to its custody business;
4. Documents verifying that it has efficient information and technology system;
5. Other documents as required by CSRC, PBOC and SAFE.
CSRC, together with PBOC and SAFE, will review application documents and decide whether to approve the applications or not.
Article 15. A custodian shall perform the following duties:
1. Safekeeping all the assets that QFII put under its custody;
2. Conducting all QFII related foreign exchange settlement, sales, receipt, payment and RMB settlement businesses;
3. Supervising investment activities of QFII, and reporting to CSRC and SAFE in case QFII investment orders are found to have violated laws or regulations;
4. Reporting to SAFE about foreign exchange remittance and repatriation of QFII, in two working days after QFII remits/repatriates its principal/proceeds;
5. Reporting to CSRC and SAFE about the status of QFII's RMB special account, in five working days after the end of each month;
6. Compiling an annual financial report on QFII's domestic securities investment activities in the previous year and sending it to CSRC and SAFE in three months after the end of each accounting year;
7. Keep the records and other related materials on QFII's fund remittance, repatriation, conversion, receipt and payment for no less than 15 years;
8. Other responsibilities as defined by CSRC, PBOC and SAFE based on prudent supervision principles.

Article 16. A custodian should strictly separate its own assets from those under its custody.
A custodian should set up different accounts for different QFII, and manage those accounts separately.
Each QFII can only mandate one custodian.

Article 17. QFII should mandate its custodian to apply for a securities account on its behalf with securities registration and settlement institution. When applying for a securities account on behalf of the QFII, a custodian should bring the QFII' mandate and its Securities Investment Licence and other valid documents, and file with CSRC the relevant situation within five working days after opening a securities account.
QFII should mandate its custodian to open a RMB settlement account on its behalf with securities registration and settlement institution. The custodian shall be responsible for the settlement of QFII's domestic securities investment, and shall file with CSRC and SAFE the relevant situation within five working days after opening a RMB settlement account.

Chapter 4. Investment Operations

Article 18. Subject to the approved investment quota, QFII can invest on the following RMB financial instruments:
1. Shares listed in China's stock exchanges (excluding B shares);
2. Treasuries listed in China's stock exchanges;
3. Convertible bonds and enterprise bonds listed in China's stock exchanges;
4. Other financial instruments as approved by CSRC.

Article 19. QFII may mandate domestically registered securities companies to manage their domestic securities investments.
Each QFII can only mandate one investment institution.

Article 20. For domestic securities investments, QFII should observe the following requirements:
1. Shares held by each QFII in one listed company should not exceed 10% of total outstanding shares of the company;
2. Total shares held by all QFII in one listed company should not exceed 20% of total outstanding shares of the company.
CSRC may adjust the above percentages based on the developments of securities market.

Article 21. QFII's domestic securities investment activities should comply with the requirements as set out in the Guidance for Foreign Investments in Various Industries.

Article 22. Securities firms should preserve the trading and transaction records of QFII for at least 15 years.

Chapter 5. Fund Management

Article 23. Upon the approval of SAFE, a QFII should open a RMB special account with its custodian.
Within five working days after the opening of the RMB special account, the custodian should report to CSRC and SAFE for filing.

Article 24. Revenue articles in the RMB special account shall include: settlement of funds (foreign exchange funds from overseas, and accumulated settlement of foreign exchange should not exceed the approved investment quota), proceeds from the disposal of securities, cash dividends, interests from current deposits and bonds. Expense articles in the RMB special account shall include: cost of purchasing securities (including stamp tax and commission charges), domestic custodian fee and management fee, and payment for purchasing foreign exchange (to be used to repatriate principals and proceeds).
The capital of special RMB account shall not be used for money lending or guarantee.

Article 25. Within three months after receiving Securities Investment Licence from CSRC, QFII should remit principals from outside into China and directly transfer them into RMB special accounts after full settlement of foreign exchange. The currency of the principals from QFII should be exchangeable currency approved by SAFE and the amount of the principal should not exceed the approved quota.
If QFII has not fully remitted the principals within three months after receiving Foreign Exchange Registration Certificate, the actual amount remitted will be deemed as the approved quota; thereafter the difference between approved quota and the actual amount shall not be remitted inward prior to the obtaining of a newly approved investment quota.

Article 26. In the case that a QFII is a closed-end Chinese fund management company, it can mandate its custodian, with the submission of required documents to SAFE to apply for purchase of foreign exchange for the repatriation of principals by stages and by batches three years after its remittance of the principals. The amount of each batch of principal repatriation should not exceed 20% of the total principals, and the interval between two repatriations should not be shorter than one month.
Other types of QFII can mandate their custodians, with the submission of required documents, to apply to SAFE to repatriate the principals by stages and by batches one years after their remittance of the principals. The amount of each batch of principal repatriation should not exceed 20% of the total principals, and the interval between two repatriations should not be shorter than three months.
The overseas receivers of the above-mentioned repatriation should be the QFII themselves.

Article 27. QFII whose principal of approved investment quota is remitted to China for less than one year but over three months, after the submission of transfer application form & transfer contract and upon approval of CSRC and SAFE, may transfer the approved investment quota to other QFII or other applicants who have fulfilled the requirements of Article 6.

After getting Securities Investment Licence from CSRC and investment quota from SAFE, the transferee can remit the difference as its principals if the value of the transferred assets is lower than the investment quota approved by SAFE.

Article 28. If QFII intends to remit principals inwards again after it partially or fully repatriates its principals, it should re-apply for investment quota.

Article 29. If QFII needs to purchase foreign exchange to repatriate their post-tax profits of the previous accounting year which have been audited by Chinese CPA, the QFII should mandate its custodian to apply to SAFE fifteen days prior to repatriation, together with the following documents:
1. Repatriation Application Form;
2. Financial reports of the accounting year in which the profits are generated;
3. Auditor's report issued by Chinese CPA;
4. Profits distribution resolutions or other effective legal documents;
5. Tax payment certificates;
6. Other documents as required by SAFE.
The overseas receivers of the above-mentioned repatriation should be the QFII themselves.

Article 30. SAFE may adjust the timeframe required for QFII to repatriate its principal and proceeds, subject to the needs of China's foreign exchange balance.

Chapter 6. Regulatory Issues

Article 31. CSRC and SAFE should annually review QFII's Securities Investment Licence and Foreign Exchange Registration Certificate.

Article 32. CSRC, PBOC and SAFE may require QFII, custodians, securities companies, stock exchanges, and securities registration and settlement institutions to provide information on QFII's domestic investment activities, and may conduct on-site inspections if necessary.

Article 33. Stock exchanges and securities registration and settlement institutions may enact new operation rules or revise previous operation rules on QFII's domestic securities investments, the implementation of which will be effective upon approval of the CSRC.

Article 34. In the event of any of the followings, QFII should file with CSRC, PBOC and SAFE in five working days:
1. Change of custodians;
2. Change of legal representatives;
3. Change of controlling shareholders;
4. Adjustment of registered capital;
5. Litigations and other material events;
6. Being imposed substantial penalties overseas;
7. Other circumstances as stipulated by CSRC and SAFE.

Article 35. In the event of any of the followings, QFII should re-apply for its Securities Investment Licence:
1. Change of business name;
2. Acquired by or merged with other institution(s);
3. Other circumstances as stipulated by CSRC and SAFE.

Article 36. In the event of any of the followings, QFII should surrender its Securities Investment Licence and Foreign Exchange Registration Certificate to CSRC and SAFE respectively:
1. Having repatriated all its principals;

2. Having transferred its investment quota;
3. Dispersion of authorized entities, entering into bankruptcy procedures, or assets being taken over by receivers;
4. Other circumstances as stipulated by CSRC and SAFE.
If QFII fail to pass the annual review on Securities Investment Licences and Foreign Exchange Registration Certificates, as mentioned in Article 31, the Licences/Certificates will automatically be invalid. And the QFII should return these Licences/Certificates as required by the aforesaid Article.

Article 37. In accordance with their respective authorities, CSRC, PBOC and SAFE will give warnings or penalties to QFII, custodians and securities companies, etc. who violate this Regulation. The same breach, however, should not be subject to two administrative penalties or more.

Chapter 7. Supplementary Provisions

Article 38. This Regulation is also applicable to institutional investors from Hong Kong Special Administrative Region, Macao Special Administrative Region and Taiwan Region, who conduct securities investment businesses in Mainland China.

Article 39. This Regulation will come into effect from 1 December 2002.

VISTA CAPITAL'S INTELLECTUAL PROPERTY VALUATION [1]

S. Brooks Marshall, James Madison University
Art Hamilton, James Madison University
Benjamin W. Ochs, formerly of M-CAM, Inc.

INTRODUCTION

Ben Pines had just been promoted to partner at Vista Capital (Vista), a venture capital firm emphasizing a portfolio of technology-oriented companies in the health care industry. A prospective investment that he found especially exciting involved a unique invention with substantial potential in the health care industry. The product was brought to Vista because of their reputation in the industry. The inventors basically wanted Vista to buy them out, providing enough funds so they could quit their day jobs and continue to invent. Their proposed price of $870,000 seemed quite reasonable, given the product's potential. However, a letter threatening litigation due to patent infringement dampened Pines enthusiasm for the product and signaled that he was going to have to take a crash course in intellectual property before he could determine whether to invest or to walk.

THE PRODUCT

The product provided remote information about the physical well-being of a user in an appropriately-wired home. The product facilitated the elderly user's ability to continue living independently at home, deferring a move to a more expensive and generally less-desirable assisted-living facility. The inventors had labeled the product "Elder Sensor", and created a company called Elder Management (Elder) to hold the product. This was just the kind of business that appealed to Pines and his colleagues at Vista – it provided increased quality of life for a large segment of the population and reduced costs for the consumer. Further, the product had demographics behind it, as the U.S. population continued to age.

THE INDUSTRY SEGMENT

The business properly belonged to the health care industry, but was in a segment that was so new that previous industry descriptions did not really fit. The technology basically conveyed information about a patient's well-being – similar to an EKG or a Cat-Scan. But these products

were remote and conveyed information about an individual, not from a hospital bed, but from an independent living situation.

Elder's main competitor was Home Stay Inc. (Home). Home had a product that was also home-based and provided remote information about the resident. Home's product was patented. The existing patent was granted for an electronic system to monitor a user in the user's living area. The system includes two components: a system controller and an activity detection subsystem. The "activity detectors" monitor the user's activities and report them to the "system controller." The system controller includes a "control circuit" which generates signals in response to the information provided by the various detectors. A "control information communication channel" transmits the information both to the detection subsystem at the user's home (so that the user may take action to avoid a false alarm) and to a remote monitoring site.

While Home's product provided value to the market, it was also clear to Pines that Elder Sensor had several advantages:

- Low cost relative to the benefits provided
- Easier to install (no wires on motion sensors)
- Wireless communication between the monitoring sensors and the base control unit in the home
- Base control unit's connection to a live internet or other high-speed data communication device
- An audible warning system that can be reset by speaking a predetermined password to a monitor or by entering a numeric password on the base control unit.

THE LETTER

Elder contacted Home describing the product and exploring the possibility of Home's licensing the product. Elder filed a provisional patent application before disclosing any information about the Elder Sensor with the United States Patent and Trademark Office (USPTO). A provisional establishes an early priority date and gave Elder enforcement privileges if Home replicated their product.

Within one week a response from Home had arrived, and the news was not good. Home's letter basically stated that marketing the Elder Sensor would be an infringement of Home's patent, and furthermore, Home was not interested in any licensing arrangement with Elder.

Elder forwarded the letter to Pines. It was clear that legal and regulatory issues involving intellectual property were going to drive the investment's value. Pines knew he needed help and called a close friend from college, Milton Arthur, whose practice was limited to patent law. Pines invited Arthur to dinner with the understanding that most of the conversation would deal with the dilemma regarding Elder's potential patent infringement. Arthur sent Pines three documents regarding patents (See Exhibits 3,4, and 5), requesting that Pines read these documents before the meeting; Pines forwarded Arthur a copy of Home's patent, a description of the Elder Sensor, and pictures of the Elder Sensor prototype.

THE DINNER

They met for dinner that evening. The results of the dinner meeting are summarized as follows:

Pines: "Elder has a product with innovations that are clearly novel and extend the usefulness of the product beyond what is currently offered and beyond what is patented by Home. The projected returns on this product are quite impressive with a huge upside. That's the good part. Now for the negatives. First, we could fund Elder's provisional into patent application. But that application would cost about $50,000 and it may all bomb if the patent never issues. Second, we could request the PTO re-examine Home's product; but that costs about $30,000 and again the outcome is uncertain. The inventors at Elder believe reexamination is a viable option. They believe that a few patents have sufficiently early priority dates and enough relevant claims to challenge the breadth of claims in Home's patent. So that there's a good chance the PTO will narrow Home's patent claims. Third, while we are proceeding with the application, the reexamination, or both, we could start the production and marketing of the product. If we do market the Elder Sensor, we can expect Home to slap us with a lawsuit for violating their patent space. We would then we would have to spend another $1.5 million compensating overpaid patent attorneys like yourself to defend us. Help me here, Milton. I need some estimates – rough estimates are fine – to help me get an idea of what to expect from this legal and regulatory morass. Right now, my better sense tells me we should walk away but the potential is huge, and the product does make the world a better place."

*Milton***:** Sipping his glass of 25-year Bowmore Single Malt Scotch Whiskey (Pines was buying). "I have never heard that venture capitalists were underpaid for their services; but I hear you. You don't want to hire us unless you have to. And you also want to know if walking away is the best option."

"I have looked at Elder's product description and believe that the odds of patent approval are good. But you'd better get ready to pony up more than $50,000, especially in this situation. The crafting of the patent affects not only the likelihood of approval but also the chance of coming out ahead in any negotiation or legal conflict with Home. Better count on $100,000. The goal is to clearly carve out patent space that is distinct from Home and is also valued in the market. You will need both legal and scientific expertise to accomplish that."

"If you request re-examination, there are 3 possible outcomes. The PTO could reject Home's patent, narrow it, or approve the patent as it stands. Narrowing Home's patent is the most likely because Home seems to infringe on patents held by others. The narrowing may make the patent specific so it does not cover what our product does. That's good and will leave a good opportunity for Elder Sensor. However, a patent narrowed as the result of reexamination is also a stronger patent. If Elder's prospective patent is deemed to infringe on Home's narrower, stronger patent, the market opportunity for the Elder Sensor may be severely constrained or eliminated. That, of course is bad. Your estimate of $30,000 for reexamination is about right -- $8,800 for the PTO to do the reexamination and another $21,000 or so in attorney fees."

"Finally, if Elder brings their product to market, Home will almost certainly sue for patent infringement. The costs are huge, running about $100,000 per month with litigation lasting up to 2 years. I think the chance litigation will last that long is slim, since both parties will be motivated to settle. Let's assume Vista and Home settle if the reexamination results are a clear approval or rejection of Home's patent; or if Home's patent is strengthened and interferes with

the Elder Sensor's marketing opportunities." Pines and Arthur then proceeded to lay out a framework for the probability of each occurrence. Pines believed that valuation would be based on the capitalization of year 3 cash flows and worked with Arthur to develop an estimate of the cash flows in year 3 (See Table 1). (Insert Table 1 Here.)

THE ANALYSIS

The next morning, Pines met a recently-hired analyst at Vista, Madison James. Pines relayed the pertinent points from the conversation with Arthur and handed her the sheet with the probabilities and cash flows listed. Pines requested that she determine the net present value of the investment. "First, you'll need to provide an NPV on the forecasts that Milton Arthur and I created (see table above). Use a 30% discount rate since this project carries a lot of risk. Notice that I am assuming we will sell at the end of three years for 15 times the amount of licensing revenues. While the capitalization at 15X seems a bit rich, that's what is being paid in this industry because of the tremendous growth potential. I am ignoring any licensing income for years 1 and 2 because the revenues we generate are likely to be needed to cover initial expenses, reserves for any damages to Home, and intellectual property insurance we will need to purchase to protect the licensee in the event production must be halted. My assumptions are listed along with the probabilities (See Table 1 above). I would like for you to take the information and get a probability-weighted net present value as soon as possible."

Pines continued, "The first important information point is immediately after the reexamination. The second important information point is at 18 months. At that time a patent application becomes public and Home can investigate our patent application. Also by that time, we will probably have additional information on the likely ruling by the PTO."

"Keep in mind that concurrent with this process, we will be marketing the Elder Sensor and gaining a better understanding of its status in the market. We have not represented the probabilities regarding market performance in any of the patent decisions; instead we have assumed an average market performance in each case."

Twenty minutes later, James provided Pines with the results of the NPV analysis. (See Exhibit 7). "Mr. Pines, the results are positive, but just barely. Not surprising, I guess, when you have a 30% discount rate." Pines looked at the results, thanked her and then dropped the bombshell.

"Maddy, I hate to do this to you since you have only been here a few months but I just got an urgent call and have to be out of town tomorrow. You will need to take the lead for tomorrow's meeting about the Elder Sensor decision. Nobody at the firm is very informed on intellectual property; but it's going to be a big part of Vista's investment process going forward and your value to us will increase considerably if you can help us incorporate intellectual property into our investment decisions. You will need to become familiar with the documents the patent attorney provided (Exhibits 3, 4, and 5). Two of the partners will be there, as well as the inventors. Expect to provide some education, along with your analysis. I know it's a lot to ask since you are new to the job; but I have to leave town in an hour. Here is a list of questions that I have heard in conversations with the partners and the inventors, so you had better be prepared to address them at your presentation tomorrow. And last, make sure you are prepared to establish your position – what are the pros and cons of investing in Vista?"

QUESTIONS FROM PARTNERS AND INVENTORS

1. If Vista purchases Elder, the proposal is to spend $100,000 on a patent application; but there is less than a 50% chance the patent application will be approved according to the product description. Why shouldn't Vista fund a reexamination and not worry about the patent application?
2. I am concerned with the indication that once reexamination is completed or as part of a settlement, Vista would agree in the future to have Home as a licensee of Elder Sensor. Would Home act in our best interest?
3. What is likely to trigger litigation from Home? Suppose we have a few items produced and proceed to demonstrate them, asking potential customers for feedback. Would that trigger litigation?
4. There appears to be some chance we can fully test the viability of the Elder Sensor with legal impunity if we produce and sell it in another country where Home does not have patent protection for its product. The prospective country is somewhat similar to the U.S. but the market is too small to be economically viable for the investment. Does it make sense to hold off on marketing in the U.S. and proceed in this other country?
5. The inventors will be attending tomorrow. They claim the probabilities we put on the reexamination and patent application results are garbage. They are certain that Home's product does not warrant broad patent protection since it is not sufficiently novel, given prior art they (the inventors) are familiar with. They also claim that the PTO will surely see through the prior art and the overly broad claim, and, as a result, will narrow Home's claims so Elder has plenty of space to operate. Last, the inventors believe full approval of the patent application is virtually a slam dunk. The product meets all requirements put forth by the PTO in the description of patenting requirements. What do you think of their perspective?
6. The area is complex. In the presentation tomorrow, could you provide a quick list of the pros and cons of purchasing Elder?

NOTE

1. M▪CAM, Inc. contributed data and analysis to this case study, aided in part by its proprietary, internationally-adopted intellectual property and innovation risk management and analysis system, M▪CAM DOORS™.

Exhibit 1. Product Elder Sensor

Elder Care's innovative product is a system that monitors a subject or user in a predefined environment. This monitoring system is specifically designed to ensure that Activities of Daily Living, such as taking medicine, showering, and so forth, are completed through a network of monitoring sensor subsystems while maintaining a live connection with a distant control center, via a base control unit which is connected to the internet or another high-speed data communication device. These low cost monitoring sensors are characterized by wireless communication antennas that converse with the base control unit (which is connected to the high-speed data communication device) and an audible warning issued to the subject or user before alerting the control center of a potential emergency. The user can respond to the audible warning by speaking a preset password to the monitoring device or entering a numeric password on the base unit, which will then reset the system to the typical monitoring mode.

Exhibit 2. Licensing

The goal of Elder's letter was to obtain a licensing contract from Home. The description of such a licensing agreement is as follows:

A license is a contract which would enable Home to make, use or sell the invention claimed in Elder's provisional patent. The license would in essence be a promise by Elder, called the owner or licensor, that it will not sue Home, called the licensee, for patent infringement, provided that Home complies with the terms of the contract. Typically, the licensee agrees to pay the patent owner a royalty which is a percentage of the revenue the licensee receives from its use of the invention. The price of the license could be established by looking at market comparables. Comparables can sometimes be found in public or private industry databases. In negotiating the terms, Home and Elder would have to consider the exclusivity of Home's use, timeframe, geographical (market) considerations and guarantees. Looking ahead, if Elder is granted a patent, Elder and Home could enter into a cross-licensing agreement where each agrees to allow the other use its invention with or without any exchange of payments.

Exhibit 3. Patent Overview

What are the defining qualities of a patent?

1. novel
2. non-obvious
3. able to be produced & implemented in current date, time, and technology limitations

A patent provides the right to exclude others from commercial exploitation for a 20-year period in the U.S. It is not a guarantee to make money, guaranteed asset or guaranteed source of revenue. Not infrequently, a patent can be a serious liability and involve costly litigation.

Primary components of a patent most relevant to Elder:

Claims – This is the first section Vista should examine. The Claims section defines the invention and ~~are~~ what aspects are legally enforceable. The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery. The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable (clearly understood) by reference to the description.

Cited prior art – applicant or examiner identifies pieces of relevant information in the form of patents or publicly available documents. In litigation, Elder would hope to find prior art that has the same claims as Home to undermine Home's patent. The strongest case against Home's patent could be made if there were prior art that had claims similar to Home's patent and were not cited.

Concurrent art – documents (patents or non-patent literature) that were under patent office review during the period the subject patent was under examination (usually 30 months or more). If a related patent was granted during Home's patent examination, the priority of claims is established by the priority date (the day that the invention or innovation was first disclosed to the USPTO).

Exhibit 4. U. S. Patent & Trademark Office

Driven by rigid examiner performance requirements, incentives, and revenue opportunities.

- First, when the patent application enters the USPTO, the classifier gets less than 5 minutes per patent to determine a classification code. With a requirement of 14 patents to be classified each hour, it has been revealed that around 20% of all U.S. patents have been misclassified.
- Second, when the examiner receives the patent from the classification department:
  - He/she outlines a search strategy.
  - The examiner then gets 16-20 hours maximum to conduct a search for prior art.
    - The examiner typically uses a "Boolean" type search, then other class codes using only keywords, or others they may know.
  - There is a requirement that each examiner search a full international database
  - When the examiner identifies patents that are relevant to be cited prior art, 20% of cited prior art actually "reads on the claims" (relates to an independent claim) of the subject patent. The rest of the patents (80%) help to frame the subject patent.
- Finally, after reviewing the subject patent application (weeks to months), an examiner contacts the applicant, communicating recommendations.
  - This is called the "1st Office Action."
    - You as the applicant are then forced to choose whether or not to proceed in attempting to patent claims that have been strongly suggested for alteration or "disallowed" by the examiner.

Examiners are required to consistently maintain the 16-20 hour pace of patent issuance. Additionally, the patent office revenues are maximized according to the amount of patents approved (generate revenue from initial application, issuance, and renewal). Examiner attitude is to typically "let the courts sort it out" when determining patent infringement during the approval process; they are not motivated to cite all patents relevant to the claims.

Exhibit 5. Reexamination and Litigation

Reexamination

This administrative option allows the challenger to request the PTO to open a reexamination proceeding. Whenever a substantial question about the patentability of an invention has been raised by any member of the public, the PTO must consider the question and may initiate a reexamination of the patent. The process of reexamination is significantly different from that used in an initial application. It is also wholly distinct from a judicial proceeding.

Fees to the PTO for reexamination are $8,800 for inter partes and $2,520 for ex partes. Of course, if the requester is paying an attorney to handle the reexamination, the total fees will be much more expensive. The process of requesting reexamination is simple, requests are usually granted, proceedings begin promptly and the procedural guidelines in a reexamination are designed to expedite the process. In a reexamination, the decision maker is an examiner for the PTO and is particularly suited to grasp the complexities and subtleties of a claim more than a judge or jury. Furthermore, there is no presumption in a reexamination proceeding that the patent is valid.

A principal disadvantage of reexamination is that if the challenged claims are found unpatentable over prior art the PTO has the authority to narrow them or even add narrower claims to the original patent. Narrowed claims strengthen the position of the patentee in any subsequent court challenge. Although a reexamination may be initiated by a competitor, it is conducted by the PTO with little or no participation by the competitor. Finally, a request for reexamination does not preclude later litigation. A patent owner in a reexamination proceeding has extensive duties of disclosure of prior art. Claims made during a reexamination can be used against a patent holder in later litigation.

Litigation

One of the primary benefits to a challenger who opts to litigate is that patent claims found by a court to be invalid because they are too broad cannot be refashioned or narrowed to avoid prior art. These broad claims that are found invalid in litigation cases are fully voided, as opposed to the reexamination process during which the patented claims are afforded the option of narrowing.

In litigation the patent holder enjoys the most important presumption of validity, as it is the plaintiff's task to prove that the patent is invalid. In such cases, litigation also affords a party full of opportunities to depose and cross examine the patent holder in pursuit of this task.

Using Reexamination and Litigation together

In light of the observations outlined above, there are benefits to employing both strategies at the same time. Typical reexamination periods can last over two years (depending on the technology area and source material provided to the USPTO in the request) and could be used advantageously if one files for reexamination at the time of litigation. Not only does this provide

settlement incentive for the holder of the patent, but it also gives the initiating party a second chance if they are defeated or forced into a license and/or settlement while in litigation. Litigation proceedings can take a long time, but it is highly likely that they will result in settlement and be completed before the results of a reexamination are announced. Therefore, employing reexamination as a backup strategy could be advantageous when faced with a litigation suit from a patent enforcer.

Exhibit 6:
Base Case Net Present Value

Assumption: Base Case

Initial outflow**: 1,000,000

Capitalization Multiple: 15 times Year 3 Revenues

Discount rate 30%

Assuming immediate marketing and litigation from Home

Reexamination	Odds	Yr 3 Rev	Capitalized 15	Litigation*	Net cash Flow	PV NCF	NPV = PV less 1,000,000**	Probability-weighted NPV
Reject Home	0.1	420,000	6,300,000	1,200,000	5,100,000	2,321,347	1,321,347	132,135
Approve Home	0.1	60,000	900,000	1,200,000	-300,000	-136,550	-1,136,550	-113,655
Narrow,limit Elder	0.3	210,000	3,150,000	1,200,000	1,950,000	887,574	-112,426	-33,728
Narrow, + Patent	0.3	390,000	5,850,000	1,800,000	4,050,000	1,843,423	843,423	253,027
Narrow, - Patent	0.2	180,000	2,700,000	1,800,000	900,000	409,650	-590,350	-118,070
						NPV of project =		119,709

*Litigation costs assumed to be paid at the end of year 3.

** $1,000,000 outflow is $870,000 to inventors + $130,000 for reexamination and patent application.

Table 1
Probabilities, Costs, and Cash Flows
Reexamination with result in 12 months

PTO Decision	Odds	Settlement	Litigation Cost	Yr. 3 Revenues
Reject Home	10%	Yes	$1.2M	420,000
Approve Home	10%	Yes	$1.2M	60,000
Narrow, limits Elder	30%	Yes	$1.2M	210,000
Narrow, Elder Strong	50%	No	Still ongoing	Depends on later information (see below)

Patent application with information received in 18 months. Assuming Home's patent is narrowed but Elder retains a strong position:

Signals from PTO	Odds	Settlement	Litigation Cost	Year 3 Revenues
Favor Elder	60%	Yes	$1.8M	390,000
Against Elder	40%	Yes	$1.8M	180,000

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JAMES ALLEN JACKSON: SELF-EMPOYED RETIREMENT PLAN

William P. Dukes, Texas Tech University

CASE DESCRIPTION

This case pertains to the establishment of a retirement plan for the owner of a business who is classified as self-employed. Students explain the choices of plans available and assess the advantages and disadvantages of the various options. A focus on asset-allocation options is reviewed to assist in an understanding of the options available. Contribution limits, the ease of understanding, and the beginning of the various plans are reviewed. The case has a difficulty level of three and may be covered in a one-class period.

CASE SYNOPSIS

The case illustrates real problems and issues that must be addressed by self-employed individuals who are interested in taking advantage of tax deferred retirement plans for themselves and their employees. Historical risk and returns data provide a basis and justification for asset allocation necessary to meet the goals established. Risk, return and inflation all play a part in the asset allocation.

The reasoning process in the identification of the type of securities likely to be needed in the process will involve considerable time and attention to the quality aspect of portfolio building. The final step is locating sufficient securities from which a properly diversified portfolio may be put together. Each student should prepare an investment policy statement for James Jackson to cover objectives, constraints, concerns, preferences and asset allocation.

Telephone Call

Jack Pettyjohn, an investment advisor for Lowell & Co. receives a call from James Jackson, the son of the owner of a large home building firm. Jack knew James' father because he was living in one of the elder Jackson's designer homes.

James is 25 years of age, having spent three years as a pharmaceutical representative, he decided that he did not care for that type of work. James received his Bachelor of Science degree in Engineering. He paid his way through school doing small construction and handy-man type of work. His father offered to pay all education fees and put him on an allowance but James rejected Dad's offer of assistance.

In the three years as a medical rep James paid into Social Security and thereby qualifies having met the minimum of 10 quarters, but was not eligible for a 401k plan. James qualifies as self-employed and is interested in taking advantage of a tax deferred retirement plan for which he is eligible. His call to Jack Pettyjohn is a call for assistance.

Jack's first question was whether James was working for his father in the development and home building business. James stated that he had worked for his father quite a bit for several years, from the time he was big enough to do the work. He explained that his father arranged to have him intern in all phases of the construction business from brick laying, framing, concrete work, finishing internal work, and the part he liked the most, electrical work.

Jack explains that there are several different retirement plans, most of which are tax deferred. (There is no income tax on the participant's income placed in the retirement plan, until funds are withdrawn many years later.) Commerce Clearing House, Inc. (CCH Inc.) provides a detailed account of each. The briefs for each plan are taken from the elaborate presentation provided by CCH, Inc.

Retirement Plans

A. Corporate 401(k)

More than 90 percent of all corporations offer a 401(k) retirement plan to eligible employees. Employees benefit from the plan because they are allowed to defer taxation on part of their wages until a distribution is taken many years later. The larger benefit is the "retirement planning package" provided by the employers. Generally speaking, the 401(k) plan replaces the "defined benefit" plans so popular many years ago. The much older pension plan provided retirement benefits as a fixed sum based on a percentage of salary multiplied by time of employment. In addition to replacing the older plans that most employees did not understand, the 401(k) plan encourages active participation. The 401(k) plan may be made a part of a profit sharing or stock bonus plan. No one is likely to be recognized as a millionaire from a defined benefit plan, whereas many long-time participants in 401(k) plans have been so identified.

From one corporation to another the differences in the 401(k) plans can be dramatic. When the "plan administrator" is overly conservative and pushed participants to invest their funds in the type of securities that will insure no loss of the principal, to the detriment of the return that could be received from an equity oriented asset allocation, the plan is not likely to thrive. As an example, many plan administrators will encourage (almost insist) that 20 to 30 percent of the portfolio be placed in a money-market fund and perhaps an equally large amount be placed in a bond fund. Such a portfolio is "safe". The question is, can you afford to be that safe? The argument is that the portfolio should have "liquidity" with the money market fund. To have a "liquid" fund that you can not touch for 30 to 40 years without a penalty ensures a failure of the plan. There is no growth/appreciation in a fixed income fund. Wal-Mart's 401(k) plan offers a core of 5 funds only one of which is fixed income the other 4 are equity oriented, as are all five of the additional funds made available. These ten options plus Wal-Mart stock offer a high probability of success. Contribution limits have been set at $15,000 for 2006..

B. Keogh Plan

In the same way that a 401(k) plan is Corporate sponsored, the Keogh Plan is sponsored by a self-employed individual. Keogh Plans are for sole proprietors or partnerships, and the self-employed individual is treated as both employer and employee. All Keogh Plan individuals must be 21 years old or older, and have one or two years service, depending on minimum participation requirements. According to the CCH write up Keogh is the most complex of the plans designed for self employed individuals.

Establishment of the Keogh plan consist of two steps:
1) The establishing employer must adopt an IRS approved prototype, sponsoring organization master plan, or adopt a plan that satisfies requirements of the Internal Revenue Code.
2) After adoption of the plan, the employer must establish a trust or custodial account for the plan funds, or buy an annuity contract or face amount certificates from an insurance company.

There are two basic types of Keogh plans that an employer may sponsor: The first is a "Defined Contribution" Plan. Each individual's account specified and the benefits based on the amounts that have accumulated in each account. The defined contribution plan can be of the Profit Sharing type Plan, in which a predetermined formula is used for allocation. Contributions, or a "Money Purchase plan in which benefits would be paid at retirement or for a number of years after retirement, is based on a predetermined formula.

The second is a "Defined Benefit Plan. The plan includes any plan that is not a defined contribution plan. The goal of the Defined Benefit plan is to provide definitely determinable benefits to an employee, and it is the obligation of the employer to make necessary contributions under the plan to ensure that these benefits can be paid. If the Keogh plan is a defined contribution plan, annual additions for each participant cannot exceed the lesser of (1) $44,000 for 2006, or (2) 25 percent of the participant's compensation in 2006.

C. SIMPLE 401(k) Plans

A "Savings Incentive Match Plan for Employees" (SIMPLE) may take the form of either a SIMPLE 401 (k) or a SIMPLE IRA. The maximum elective deferral for either plan is $10,000 a limit reached in 2006 for those under 50 and $12,500 for those over 50.. Inflation adjustment may follow. Unless special plans are made the employer must match the annual elective contribution of the employee, but not exceeding 3 percent of the employee's compensation. All contributions are fully vested when made. The SIMPLE 401 (k) is elective only if the employer has 100 or fewer employees who earned at least $5,000 during the previous year. The employer's deduction is limited to the greater of 25 percent of the employee compensation or the amount that the employer is required to contribute for the plan year. Only the elective and matching contributions may be made to the SIMPLE 401 (k) plan.

D. IRA

The individual retirement account (IRA) is the most common type of retirement account. Earnings and gains on the traditional IRA contributions will not be subject to Federal income taxes until they are distributed. The maximum annual contribution to all IRA's for individuals under the age of 50 is $4,000 for the years 2006-2007 and $5,000 for the year 2008. For individuals age 50 and older the maximum annual contributions is $5,000 for year 2006 and 2007, and $6000 for the year 2008.

If the individual is an active participant in an employer-maintained plan the traditional IRA deduction is phased out as the adjusted gross income approaches the upper limits of the applicable "phase-out range", as shown below.

Year	Joint Filer Phase-out Range	Single Filer Phase-out Range
2006	$75,000 to $85,000	2006 & after $50,000 to $60,000
2007 and after	$80,000 to $100,000	

E. SEPs

A retirement plan called a SEP is a Simplified Employee Pension and is used mainly by self-employed individuals who desire to avoid involvement with the complex requirements imposed by other types of qualified plans but want to be able to contribute and deduct more than allowed for IRA's for SIMPLE plans discussed above. Some corporate employers may elect to use a SEP plan for their employees rather than the more traditional qualified plans such as the 401(k) plan. As indicated for Keogh plans, the maximum contribution is the lesser of 25 percent of the employee's compensation or $44,000 in 2006. The maximum contribution for a self-employed individual for his own SEP account is the same as for a Keogh Plan and for the employee's plan (lesser of 25 percent of compensation or $44,000 in 2006).

Most employers use Form 5303-SEP (Simplified Employee Pension-Individual Retirement Accounts Contribution Agreement) to adopt a SEP plan. This completed form becomes an IRS approved agreement to set up a model SEP. For this to be a valid plan the employer must contribute to each SEP employee of age 21 who has performed services for the employer in at least three out of the last five years, and who has received a specified dollar amount of compensation from the employer.

F. Roth IRA

The Roth IRA is treated much the same as the traditional IRA, but subject to different limitations. The contribution limits to "all" IRAs is the same for individuals under the age of 50, $4000 for year 2006, increasing to $5000 for the year 2008, and for 50 and older the range is $5000 for year 2006 and increasing to $6000 for the year 2008. For the Roth IRA, these contributions are not deductible for income tax purposes.

The "phase-out range" for the Roth IRA is increased over the range for the traditional IRA to a modified Adjustable Gross Income (AGI) of $95,000 and $110,000 for an unmarried individual, to a modified AGI of $150,000 and $160,000 for a married individual filing a joint return.

The income distributions required to be started at age 70 ½ for the traditional IRA does not apply to the Roth IRA. In addition, contributions may be made after age 70 ½ years. The distributions made from a Roth IRA are not taxable.

The traditional IRA has a tax deductible benefit during the time of the contributions. This benefit is more than offset by the no income tax requirement for the Roth IRA as distributions are made. The primary difference is that the traditional IRA requires inclusion of all distributions as part of the taxable income, to include contributions and earnings on all contributions. For the Roth IRA the contribution is after tax, the earnings on these contributions are not subject to tax at anytime.

G. Other Retirement Plans

Since James Jackson is likely to be self employed, a 403B for schools and tax-exempt institutions, and 457 Plans, for government and exempt organizations, would not be appropriate. Annuities of various types can be purchased from insurance companies as a way of converting lump sum payments into a continuous payment plan. Social Security is not an optional plan sponsored by the employer.

More About James

Following the review of the retirement plan options available but before a choice is suggested, Jack wants more detailed information about James, his work expectations, possible income, family needs and goals for the future.

James explained that his health is excellent and that he is married to his college sweetheart, Donna Ann. They want to have a big family, but want to get settled and have all financial plans in place before they start the family.

James has a goal of fifteen million dollars in his retirement plans after taxes when he reaches the age of 65, 40 years from now. In his partial first year his earned income was $100,000. Without expanding his working arrangement, he believes that $125,000 income would be a reasonable guess. He did explain that his future plans include putting together small well-trained housing crews for which he would be a sub-contractor for builders. As soon as he can locate the right workers he plans to have two crews, that could work together or separately to meet the needs of the builders. He hasn't given up on the idea of having a "handy-man" crew if the market can meet the requirement.

Whichever retirement plan Jack recommends, James wants to be able to include his permanent employees in the retirement plan.

After the retirement plan has been identified and put in place, James wants to start the retirement plan ball rolling by putting together a portfolio that will meet his long term goal. Jack recognizes that this will not be easy to do, and certainly will require considerable time and effort to identify the types of securities necessary to meet his goal.

QUESTIONS

1. Prepare an investment policy statement for James Allen Jackson.

2. Review retirement plans available and identify which plan or plans will be the most appropriate for James. Explain in detail.

3. Identify and describe the type of securities best suited to meet James' goal.

4. Within the framework in 3. above, identify and provide sufficient information on about 20 securities that could be used to help James meet his long-term goal. In providing details necessary for each security to help James in the portfolio building stage, it is suggested that for each security, show brokerage house/analysts rating (only investment grade and good quality stocks are acceptable), and an estimate of the annual return to be used in demonstrating whether or not James can meet his goal. It is suggested that the annual return can be developed from Value Line sheets and some reasonable assumptions.

5. The items needed cover appreciation and yield for the total return. In this situation the assumption is that the price-earnings ratio does not change. If you believe that the returns calculated are not likely to be sustainable, you can make adjustments considered reasonable.

A SECOND OPINION

Patrick J. Larkin, Fayetteville State University
Baeyong Lee, Fayetteville State University
Abdoul Wane, Fayetteville State University
Thomas G.E. Williams, Fayetteville State University

A Certified Financial Planner (CFP) with ten years in the business at a large investment firm, Marvis Jones had his moments of regret over leaving to start his own financial planning practice. He had a number of loyal clients, mostly young to middle-aged professionals with relatively small but growing portfolios. However, he'd never really been able to find a market niche that could propel him into the ranks of the high six to seven-figure (in terms of yearly earnings) financial planners. Marvis had always been interested in working with professional athletes, but he'd found it a tough market to break into. On the other hand, he knew that with professional athletes, as with other close-knit groups of successful people, the first client is usually the toughest to land. Marvis got his chance to land that client when Kevlar Wilson came walking through the door one sunny Monday afternoon.

OPPORTUNITY KNOCKS

"I'm going to need a day or two to run the numbers on a spreadsheet," said Marvis Jones. "In order to evaluate the advice that you've received in the past, it would also be helpful to know a little more about what your financial goals are, what resources you expect to have available to meet those goals, and how you feel about risk." As a sports fan, Marvis knew a little about Kevlar Wilson already. Kevlar was a rookie fullback with the local National Football League franchise, a second round draft choice with good hands and an explosive burst to the line of scrimmage. Kevlar had just signed a four-year contract that included a (non-guaranteed) yearly salary of $450,000 plus a signing bonus of $500,000.

"I have all the risk I can take every Sunday," said Kevlar. "I blow out my knee making a block and my career could be over. That's why I want to be smart with my signing bonus and take care of my obligations up front. I have a little girl that's with her mother up north. I want to establish a fund for her, something safe. I don't want it tied up in something that starts falling and I can't get out of it."

"How old is your daughter now?" Marvis asked.

"She'll be three in December" Kevlar said.

"So that explains the fifteen-year time frame that we're looking at?" Marvis said.

"See, the thing is, I hope to play ten years in the league and make a pile of money. My little girl will have no worries. But the reality is the average career for an NFL running back is about four years. In this league, it's a year round, twenty-four-seven job if you want to be among the elite. You're in the training room. You're in meetings. You're in the film room. I don't have

time to be watching my money all day, moving money from here to there. What I need is a fund that will take care of my little girl's future if that worst case scenario comes up."

"Well, that shouldn't be too hard to accomplish, given the assets that you have available right now, said Marvis. But let me ask you one thing: what was it that brought you to me? Are you unhappy with the investments that your current financial advisor has recommended?"

"See, I was a marketing major, but I took a course in finance…you know how sometimes you can't pin it down, but you have a bad feeling about something? One thing I remember is the professor talking about the "miracle of compound interest" and us calculating how money builds up. Well, now my man's telling me that the "miracle of compound interest" just leads to the "miracle of compound taxes," and that I need to "accelerate my money." He says that way I can avoid the opportunity costs of the taxes. It sounds good, but some things sound good because they're too good to be true. What I'd like for you to do is to look things over, see what you think. Kind of like a second opinion."

Alone in his office at 6:00 P.M, Marvis went over the possibilities in his mind. He knew that if he could win the trust of Kevlar Wilson, there would be an excellent chance that he would be able to market successfully to other highly paid sports figures. It was clear that Mr. Wilson would not have come to him if he were completely satisfied with his current planner, Superior Financial Advisors. First, he would have to carefully evaluate the plan that Superior had proposed. If the plan contained major flaws, Marvis would have an opening to pursue Mr. Wilson's business for himself. Even if the plan were sound, Marvis reasoned, then perhaps providing the client with a clear, straightforward analysis would lead to a continuing relationship and valuable referrals. Marvis laid the documents from Superior Financial Advisors across his desk and went to work.

THE PROPOSED PLAN FROM SUPERIOR FINANCIAL ADVISORS

Overview of Investment Plan: Superior Financial Advisors

Client Profile: the client is a twenty-two year old professional athlete with no debt, substantial liquid assets (approximately $90,000 in a checking account) and a new home purchased for $230,000 with his recent signing bonus. His future income stream should be high but there is a high degree of risk attached. The client's main obligation is the support of a three-year old daughter living with her mother in Cleveland.

Client's Goal: to invest a lump sum of $100,000 that will insure that enough funds are available in fifteen years to pay his three-year old daughter's college expenses and provide her with a modest additional "nest egg." The client intends to view the prospective fund as "untouchable," so liquidity is not a major concern.

Recommendation: a mix of our firm's risk-free money market funds can be managed to minimize tax liability. In the exhibits below we compare a standard passive money-management strategy that we term the "accumulation strategy" with our preferred strategy to minimize taxes, which we call the "acceleration strategy."

The Accumulation Strategy (refer to Exhibit 1)

Assumptions:

1. The client's marginal tax rate is 35%.

2. The client invests $100,000 in a taxable risk-free money market fund that earns a 7% pre-tax rate of return (net of fees) over a 15 year time period.
3. Annual earnings from the fund are reinvested at the 7% pre-tax rate.
4. The client pays all taxes out of pocket. In our experience, this is more realistic than assuming that the client pays taxes out of earnings on the investment.

The Acceleration Strategy (refer to Exhibit 2)

Assumptions:
1. The client's marginal tax rate is 35%.
2. The client invests $100,000 in a taxable risk-free money market fund that earns a 7% pre-tax rate of return (net of fees) over a 15 year time period.
3. Annual earnings from the fund are not reinvested in the taxable fund, but instead are invested in a non-taxable risk-free fund that earns a 4% rate of return (net of fees).
4. The client again pays all taxes out of pocket. As of the end of year 2, the client's tax liability will be lower than it would be under the accumulation strategy. Each year thereafter, the client invests the tax savings (the difference in taxes paid under the accumulation and acceleration strategies) back into the risk-free taxable money-market fund that earns a 7% rate of return. We can think of this as a third account (labeled Account 3 below) that will generate earnings and produce tax liabilities until the end of year 15.

Accumulation vs. Acceleration (refer to Exhibit 3)

While both strategies require an original investment of $100,000, the client gains a net value of $133,678 (earnings net of taxes paid) under the acceleration strategy, versus $114,337 under the accumulation strategy. This was accomplished by flattening the client's tax liability by investing earnings from the taxable account into our tax-free money market account. This avoids the tendency of compound interest payments to compound the client's tax liability. Along with the direct out of pocket costs, there is also an opportunity cost associated with paying taxes. Taxes saved through our acceleration strategy are reinvested in our taxable money market fund. This "third account" grows to $33,195 by the end of the 15th year.

Exhibit 1. The Accumulation Strategy.

End of Year	Account Balance	Earnings	Taxes
0	100,000	0	0
1	107,000	7,000	$2,450
2	114,490	7,490	2,622
3	122,504	8,014	2,805
4	131,080	8,575	3,001
5	140,255	9,176	3,211
6	150,073	9,818	3,436
7	160,578	10,505	3,677
8	171,819	11,240	3,934
9	183,846	12,027	4,210
10	196,715	12,869	4,504
11	210,485	13,770	4,820
12	225,219	14,734	5,157
13	240,985	15,765	5,518
14	257,853	16,869	5,904
15	275,903	18,050	6,317
Totals		$175,903	($61,566)

Exhibit 2. The Acceleration Strategy

End of Year	Account 1 Balance	Account 1 Earnings	Account 1 Taxes	Account 2 Balance	Account 2 Earnings	Tax Savings	Account 3 Balance	Account 3 Earnings	Account 3 Taxes
0	$100,000	$7,000	$2,450	$0	$0	$0	$0	$0	$0
1	100,000	7,000	2,450	7,000	0	0	0	0	0
2	100,000	7,000	2,450	14,280	280	172	172	0	0
3	100,000	7,000	2,450	21,851	571	355	539	12	4
4	100,000	7,000	2,450	29,725	874	551	1,128	38	13
5	100,000	7,000	2,450	37,914	1,189	761	1,968	79	28
6	100,000	7,000	2,450	46,431	1,517	986	3,092	138	48
7	100,000	7,000	2,450	55,288	1,857	1,227	4,535	216	76
8	100,000	7,000	2,450	64,500	2,212	1,484	6,337	317	111
9	100,000	7,000	2,450	74,080	2,580	1,760	8,540	444	155
10	100,000	7,000	2,450	84,043	2,963	2,054	11,192	598	209
11	100,000	7,000	2,450	94,404	3,362	2,370	14,345	783	274
12	100,000	7,000	2,450	105,181	3,776	2,707	18,056	1,004	351
13	100,000	7,000	2,450	116,388	4,207	3,068	22,388	1,264	442
14	100,000	7,000	2,450	128,043	4,656	3,454	27,409	1,567	548
15	100,000	7,000	2,450	133,165	5,122	3,867	33,195	1,919	672
Totals		$105,000	$36,750		$35,165	$24,816		$8,379	$2,933

Exhibit 3. Accumulation vs. Acceleration

	Accumulation	Acceleration
Original Investment	$100,000	$100,000
Earnings:		
Earnings on Account 1	175,903	105,000
Earnings on Account 2		35,165
Ending Balance in Account 3		$33,195
Total Earnings	$175,903	$173,360
Less Taxes Paid:		
On Account 1	(61,566)	(36,750)
On Account 3		(2,933)
Net Value Created	$114,337	$133,678

CHICAGO COMPUTER TECHNOLOGY, INC.: CAPITAL BUDGETING IN THE GLOBAL MARKET

C. Pat Obi, Purdue University Calumet

CASE DESCRIPTION

This is a financial case study dealing with an investment decision problem for a small but growing firm in the Chicago area. The case presents a global dimension to international capital budgeting in that the firm, Chicago Computer Technology, is faced with both international and economic risk factors as it decides whether to expand its operations to South America. While the cash flow estimation process of the case is fairly straightforward, the complexities of the case arise in the consideration of the less quantitative factors such as political risk, exchange rate risk, and some elements of cultural risk. This is an MBA-level case with a difficulty level of three. It is designed to be taught in three class hours and is expected to require about three hours of outside preparation by students.

CASE SYNOPSIS

This case features a small but growing computer hardware company that is facing a decision to expand its operations overseas. To determine the value of the proposed project to be located in South America, the firm must deal with the impact of currency risk as well as a variety of foreign and domestic business risk factors. In addition, the firm must contend with the usual cash flow estimation problems involved in capital projects of this nature. The task presented to students is to determine the initial net present value of the project and later, to provide an intuitive response as to the various risk factors that could potentially impact the value of the project.

INTRODUCTION

Joshua Lybolt is the Chief Financial Officer for Chicago Computer Technology, Inc. (CCT), a successful and rapidly growing manufacturer of personal computers. He has been asked to evaluate an investment project requiring the company to build a factory in Chile to assemble the company's most popular computers for sale in the South American market. Mr. Lybolt knows that Chile has been a real business success story in recent years having achieved economic growth rates of over seven percent per year from 1990 through 1999. This, it did while making transition from a military dictatorship to a democracy. CCT is eager to invest in this developing economy if an attractive business opportunity exists.

BACKGROUND

Chicago Computer Technology is a firm that sprang out of the technological revolution of the 1990's. Unlike most of its contemporaries however, CCT concentrated on hardware manufacturing rather than software. The company believed that the software market was too fluid and competitive, and often had the potential to misjudge consumer needs. The company was the brainchild of Dushan Nikolovski, a Macedonian immigrant with a knack for identifying and exploiting new business opportunities. Recently, Mr. Nikolovski has been closely watching business trends in some of the emerging economies of Southern Africa and Latin America. He would often remind his partners that the untapped markets of Africa and Latin America are the future lifeblood of CCT if the company must attain its strategic goal of maintaining a dominant presence in the overseas market, in particular in the small but growing economies.

THE TASK AHEAD

Mr. Lybolt's job is to use the information provided in this case to determine whether the Latin American computer proposal meets the company's investment standards. On the basis of the prevailing Chilean peso-to-dollar exchange rate of Ps 562/US$1, he estimates that the factory would cost about Ps 6,000,000,000 ($10,676,157) to build. The total cost of the project would be fully depreciated on a straightline basis over 10 years. Additional working capital requirement in the second year of operations is estimated to be 10 percent of the depreciable cost of the project. Thereafter, this amount is expected to increase by eight percent per year for about eight years. The project is expected to generate annual incremental operating income of Ps 8,000,000,000 in the first year of operation. Revenues are expected to grow at an annual rate of 7 percent in the following two years and only 2½ percent thereafter. Initially, the factory would import key components from the United States and assemble the computers in Chile using local labor. Mr. Lybolt estimates that half the company's costs will be dollar-denominated components and half will be in local currency (peso), but all CCT's revenues would of course be in pesos. A major financial concern of this project is that as long as the peso/dollar exchange rate is stable, the company's peso cost of acquiring dollar-denominated components would increase, and its profit margin would shrink because the peso sale prices of its computers would not change.

ADDITIONAL FINANCIAL PROJECTIONS

If CCT made this investment, it would have to set up a subsidiary in Chile and design the project so that the subsidiary's capital structure was 70 percent debt and 30 percent common equity. Therefore, to finance the Ps 6,000,000,000 factory cost, CCT must obtain Ps 4,200,000,000 ($7,473,310) in debt and Ps 1,800,000,000 ($3,202,847) in equity. The debt can be obtained either by issuing $7,473,310 of dollar-denominated bonds at a 10 percent interest rate and then converting the proceeds to pesos, or by borrowing the peso equivalent in the Chilean market at a 21 percent annual interest rate. If borrowing is in dollars, the parent

company must also service and repay the debt in dollars, even though all project revenues will be in pesos.

In performing the analysis, Mr. Lybolt believes that the parent company will provide the equity capital for the project. CCT could do this by extending the dollar amount to the subsidiary from either its retained earnings or from newly issued common stock. This equity financing would then be converted to pesos. As an alternative, the subsidiary could sell the peso equivalent of the equity capital to Chilean investors by listing shares on the Santiago Stock Exchange. The required rate of return on the company's equity is 17 percent. But this rate actually applies to its dollar-denominated investments.

As a means to boost private investments, the Chilean legislature recently passed into law a new bill that allows a package of tax incentives for new startups. For example, firms like CCT would qualify for an investment tax credit equal to 10 percent of the depreciable cost of their investment. Additionally, firms with over 100 employees would be tax exempt in their first two years of operation. CCT also qualifies for this additional incentive. Joshua Lybolt believes that bye and large, the applicable tax rate for this capital project is in the neighborhood of 28 percent. He must now determine the merits of the project based on the data at hand.

CASE REQUIREMENT

Assuming that the peso-dollar exchange rate remains unchanged, what is the present value of the first 10 years of the project's expected net cash flows? Based on this horizon alone, should the project be undertaken? Notice that the NPV you calculated does not include a salvage value for the project (value at the end of year 10). How would you estimate this value, and how would it be incorporated in your capital budgeting analysis?

Identify some of the international economic and business risk factors that implementing a project of this type faces. More specifically, are there any risk factors involved in financing this project with local funds (that is in pesos)? Which financing strategy – dollar versus peso – should minimize the project's exchange rate risk exposure? Would your answer change if Chile began to experience political instability? In your opinion, what would happen to the attractiveness of this project if Chile joined the North Atlantic Free Trade Agreement (NAFTA)?

Finally, provide an assessment of the cheap labor motive according to Ramcharran (1999). Also, explain how this potential benefit may be offset by foreign investment uncertainty, which is discussed by Ajayi and Mehdian (1994). What happens to the NPV of the project if the dollar appreciates or depreciates against the peso? Evaluate your response in light of the evidence in Swanson (2000) concerning the impact of exchange rates on the U.S. equity market.

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NEW AGE COMPUTERS, INC.

Melissa Williams, University of Houston – Clear Lake

CASE DESCRIPTION

This case is a "classic" cash budget/forecasting case involving the operations of a small computer company. Students are expected to be able to organize and present a monthly cash budget, preferably using a spreadsheet program such as Microsoft Excel (although it can be done by hand as well). It is appropriate for advanced undergraduate students and beginning MBA students. It is designed to be a basic framework for discussion, but the case can also be used as a "warm up" or review for a more detailed study of forecasting. The case can be discussed in as little as one half hour of class time, and students should be able to prepare it in no more than three hours outside of class.

CASE SYNOPSIS

Dave Watson is the owner and technical manager of New Age Computers, a small computer firm that has grown and shifted focus in the last several years. After streamlining some things, business manager Steve Holmes has begun to focus on the planning process and operating needs for the upcoming year. He has collected some operating and financial information and is tasked with coming up with a monthly cash budget in order to continue the streamlining process.

INTRODUCTION

New Age Computers, Incorporated (NACI) had been started in 1999 by Dave Watson, a process engineer and former regional manager for a multinational steel company. The company began in his garage, and by the end of 2004 NACI had grown into a healthy firm with hundreds of business and professional customers.

Watson's started NACI after building home computers for friends and coworkers, assembling computers from standard components after work and on weekends. He gradually acquired a portfolio of first-person referrals. After finding a set of reliable parts suppliers, he ended up leaving his full-time job to start New Age Computers, Inc., in 1999.

The microcomputer industry was still fragmented in 1999. The market for computers at retail prices was distributed over three or four large national manufacturers, each with its own established and exclusive distribution channel. Even though off-brand components were available from mail-order parts distributors, the average user lacked the knowledge and skill necessary to acquire and assemble reliable computers from quality parts. Watson set about to carve a niche for his business: building advanced, reliable computers, from quality parts, for users that were willing to pay for the best quality available.

As a hobbyist, originally, Watson found that personal computers were simple to build and equip. They consisted of several large components: a case unit (with an integrated power supply); a motherboard (with the microprocessor and memory); a floppy drive, hard drive, and CD/DVD drive with their controller circuits; a video card and monitor; and the keyboard and mouse. Customer specifications included the speed and memory capacity of the motherboard, the capacity of the hard drive, and the display resolution or memory of the monitor and the video card subsystem. In addition, Watson's customers usually expressed a preference for one or more operating systems that he would help them license and install.

Watson's network of suppliers was important to NACI's success in the first few years. He was able to obtain quality parts from the Pacific Northwest. Watson's experience as a procurement agent proved to be a valuable asset for the firm, and this was evident several months after the start of the business. After attending a local trade show for two days in early 2000, NACI had hard orders equal to four months of steady production. Watson was able to set prices fully a third lower than his local competitors and he promised a high quality product as well. This price advantage carried NACI through the end of 2002.

NEW OPPORTUNITIES

In mid-2001, one of NACI's largest customers decided to install a local area network (LAN) so that the firm's individual computers could share the same information, software, and (eventually) printers. Before this, NACI had not sold network software or hardware. Watson thought that computer networking would be a lucrative growth area as the market for business computers matured. He accepted the challenge, at the urgent request of the client, and gained a great deal of practical experience by designing, installing, servicing, and expanding their network. Within two years, NACI had hired another network specialist. Watson began to shift his firm's focus away from building high-end computers and toward integrated networks for small- to medium-sized businesses.

By late 2005, NACI was known as one of the best specialty network shops in its home city. Watson, as technical manager, had hired another network engineer and a full-time computer technician. Assembly was done by up to five part-time technicians, mostly local college students. The office staff included a business manager and an accounts payable/receivable clerk. NACI also had a full-time sales representative, though approximately half of the firm's dollar sales were still generated through referrals and repeat customers.

LOOKING AHEAD

Watson was a competent manager with respect to technical matters, and he shared the planning function with his business manager, Steve Holmes. Holmes had earned a bachelor's degree in business finance and an MBA in management information systems from a local university a few years earlier, and he had demonstrated a quick and thorough understanding of the computer systems and software industries. After his arrival in 2003, Holmes automated the office at NACI and eventually increased productivity to support the larger order volumes.

In recent months, as Watson's focus had shifted more to working with clients and learning about new networking software, he had grown concerned that he wasn't giving his full

attention to planning for the day-to-day operations of the company. He had worked hard to become more comfortable delegating the business side of the company, the managing tasks, to Holmes. As time passed and Holmes demonstrated his abilities, Watson developed complete confidence in what his young manager was doing to plan for the future. They worked well together, he knew, but Holmes was a competent manager on his own. Watson knew he would have to continue to push for more time on his own projects and leave the running of the business to Steve.

Holmes was excited about the additional responsibility, and ready for the task. For the first time, he would produce and tweak the operating plan for the next full year without the constant supervision of his mentor. Most importantly, his confidence had been bolstered by the other projects he had completed up to this point.

Maybe it was his background in big business that pushed him in this direction, or his training as an engineer, but Dave Watson had always stressed the need for a complete cash budget as the foundation of the annual operating plan. Holmes had studied cash budgets in school, so the idea was familiar to him when he got to NACI. In the past couple of years he had learned how important it was to be able to anticipate the ebb and flow of cash through the firm. In addition, he knew how important a budget was for planning for and soliciting bank financing – it was obvious that NACI would eventually need to obtain bank loans if Watson wanted to continue to grow the business at such a rapid rate.

In late 2005, having completed his important streamlining projects, Holmes turned his attention toward forecasting operations for the next full year. At the end of November, he met with his sales rep to develop a reasonable estimate of 2006 sales. NACI's total sales had been growing at about 15 percent per year, but the firm had started to concentrate more on selling network software and expertise rather than quality computers. It was expected that total sales in 2006 would grow by 10 percent over 2005 sales. After allowing for seasonal variations, Steve produced estimates of 2006 sales in dollars, by month. These figures are shown in Exhibit 1, along with 2005 monthly sales for comparison.

To forecast monthly collections, the office clerk generated a list of customer invoices that had been paid during the month of November 2005. Steve thought that examining the dollar amounts and the original dates of the sales invoices would show a pattern of monthly collections. A summary of this information is given in Exhibit 2.

For its customers, NACI had stated credit terms of 2/10, net 30. Almost all payments received in the month of the sale were discount sales. Some customers paid late, but defaults were extremely rare. Having service agreements with clients also helped to remind them to pay NACI invoices. Steve felt that the pattern of collections in November would be close to what he could expect for each month in 2006.

To estimate future cash payments, Holmes would need to analyze the relationship between NACI's cost of good sold and total sales. In the past, the cost of goods sold had amounted to approximately 60 percent of monthly sales in dollars. Computer component purchases averaged 59 percent of the cost of goods sold, with direct labor and overhead each amounting to another 26 and 15 percent, respectively. Direct labor, overhead, and roughly half of the component purchases were paid for in the month incurred, but half of the component purchases were paid in the following month. NACI had found several suppliers that would grant the firm credit terms, usually with payment due in less than twenty days. As was common in the industry, some suppliers still demanded a company check for payment upon delivery.

Salaries for 2006 were expected to total $271,000, and payroll taxes were expected to be $21,000. Office expenses, which included utilities, telephone service, office supplies, and the lease payment on a photocopier, were estimated at $33,400. NACI leased three vehicles, a car for the sales rep and two delivery vans, and the cost of insurance and lease payments for these totaled approximately $30,000 per year. Cash payments for all of these expenses would be spread evenly throughout the year. Rent was a different matter.

NACI had negotiated a ten-year lease for a 2,950 square foot space in a new business park. The location was classified as "mixed use," with approximately half of the floor space outfitted for retail use (or computer assembly, in this case) and the other half divided into offices. NACI's rental agreement stipulated that the firm was to pay a fixed amount per square foot per year and an additional amount based on the firm's quarterly sales, known as percentage rent or "overage." NACI paid $20 per square foot per year fixed rent, but this amount was divided into twelve equal monthly payments. The percentage rent agreement required NACI to pay 1 percent of quarterly sales, and these payments were usually made in the month following the close of each calendar quarter: January, April, July, and October. The next scheduled overage payment was to be made in January 2006.

NACI's salesman received a 3 percent commission on any sales that directly resulted from his effort. In the recent past, approximately half of all sales had been from past clients or contacts generated by the technical staff, and half had been primarily due to the work of the sales rep. Commissions were usually paid during the month following the original sale.

Holmes had already calculated the firm's expected tax liability for the coming year, and determined that NACI would need to make estimated tax payments totaling $44,000. One-fourth of this amount would have to be paid in April, July, and October, with the final payment to be made in January 2007. The firm had an estimated tax payment of $9,000 due in January 2006.

Finally, NACI was planning to make several large cash investments over the next twelve months. In February, the firm would update and extend its existing computer network by purchasing $30,500 of new computer equipment and laser printers. A site license for an emerging network software program would have to be purchased in June at a cost of $37,000. In September, Watson planned to acquire exclusive regional distribution rights to another network operating system, and this would cost approximately $35,000.

Holmes estimated that NACI would have approximately $16,000 in its transaction account on December 31, 2005. He generally liked to maintain an account balance of at least $10,000 at all times. This was the smallest amount that would allow him to sleep comfortably at night.

As Steve sorted through the data he had collected, he thought about his relationship with the firm's bankers. Although NACI had not needed to use short-term bank borrowing in the recent past, Steve was certain that he could obtain funds on short notice, provided that he could show the bank a comprehensive and realistic cash budget. First he would have to determine exactly how much cash would be needed and when, and then he could use the cash budget to illustrate their need for borrowing. In addition, a budget would show the timing and amount of any cash available for investment in short-term, liquid securities which could be sold when cash was later needed to fund operations or special projects. Bankers usually wanted to know about the amount and timing of repayments as well - they were funny that way, Steve thought.

It would be a challenge, and it would end up taking a few more sleepless nights. In or out of the office, Steve Holmes figured his mind would full of numbers for the holiday season.

Exhibit 1
New Age Computers, Inc.
Dollar Sales per Month

Month	2005	Forecasted for 2006
January	$107,200	$117,920
February	101,400	111,540
March	95,700	105,270
April	116,300	127,930
May	113,900	125,290
June	114,000	125,400
July	83,600	91,960
August	84,900	93,390
September	103,800	114,180
October	110,700	121,770
November	118,200	130,020
December	91,400	100,540
Total Sales	$1,241,100	$1,365,210

Exhibit 2
New Age Computers, Inc.
Collections Summary for November 2005

Month of Invoice	Amount
September	$5,190
October	50,922
November	53,190
Total Collected	$109,302

SUGGESTED EXERCISES

1. Develop a worksheet that shows expected monthly cash collections for January through December 2006.

2. Develop a worksheet that shows expected monthly cash payments for January through December 2006.

3. Using the worksheets from Questions 1 and 2, create a cash budget which clearly shows the following items:

   a. The cash on hand at the beginning of each month.

   b. The total cash on hand after net cash from (used by) operations has been calculated for each month.

   c. The new borrowing required in any month.

   d. Any cumulative amount borrowed, less repayment, in each month.

   e. The ending balance for each month.

   f. The amount of cash available for short-term investment (if any) in each month.

Note: You should assume that NACI will use excess cash (as it becomes available) to repay any outstanding (cumulative) borrowing from prior months.

4. Suppose a monthly cash budget proves to be too limited for forecasting NACI's borrowing needs. What information would be needed to calculate a cash budget on a weekly or biweekly basis?

5. A cash budget is just one tool for monitoring the financial position of a firm. What other information or accounting reports could Steve use to track the day-to-day status of NACI?

6. What is the "cash conversion cycle?" What types of things can a firm do to compress its cash conversion cycle? For NACI, what are the most important components of its cash conversion cycle and what should Holmes focus on changing in the future? Note: This is sometimes referred to as the "cash to cash cycle" or "CCC."

7. What are some alternative types of loan arrangements that Holmes should be familiar with before taking his numbers to a bank? What type of loan would be most appropriate for a small firm that is growing as rapidly as NACI?

MIDD LIFE INSURANCE COMPANY (1998): AN ADVENTURE IN DEMUTUALIZATION

William Brent, Howard University

CASE DESCRIPTION

The primary subject matter of this case concerns the financial and organizational change incurred by an insurance firm facing the decision to complete a demutualization, thus changing it to mutual status, or to remain fully supported by its policyholders. The issue of valuation and amount of funds needed to contain the firm's financial needs, sustain its long-term growth, and benefit its owners are the central foci of the case for the case evaluator and student. This insurance firm must decide if demutualization will be pursued or if establishment of a downstream stock or holding company will best serve its corporate needs and the needs of its policyholders. The case has a difficulty level of four, appropriate for first year graduate level. The case has both current and historical applicability for MBA students concentrating in corporate finance, insurance, financial management, or multinational corporate relations and serves as a pedagogically sound tool for the study of applied financial and capital market management. It explores the demutualization process and highlights its advantages for mutual firms and its shortcomings for insurance and capital market regulators. The case is designed to be taught in five class hours and is expected to require 5-6 hours of outside preparation by students.

CASE SYNOPSIS

This case affords students an opportunity -- from both a strategic and financial point of view -- to evaluate a large Canadian insurance firm through the demutualization maze. There is discussion of the impact on the equity markets if the decision is made to execute the demutualization. The decision hinges on the analysis of two kinds of financing: 1) the restructuring of other major players in the industry and the forces that motivate that process and 2) the financial structuring of a single firm's approach to residual-ownership interest or equity in an industry whose primary product is casualty and life coverage and risk management. Of primary concern throughout is why sound mutual companies decide to take on shareholders and public markets and how their offerings differ whether they are a downstream subsidiary or a fully demutualized firm. Further, a peripheral issue is the impact of downstreaming or direct demutualization on regulations and regulators of the firms with an emphasis on change, the allocation and determination of asset value, and the high potential for failure. Midd Life is a fictitious firm and all data elements and statements were derived from other public internet data and public secondary financial data. No private or insider information was provided or extracted from a specific firm for use in this case.

INTRODUCTION

Midd Life of Canada (1998)

In the June 1996 consultation paper on the 1997 Review of Financial Sector Legislation, the Canadian government announced its intention to develop a demutualization regime that would enable all mutual life insurance companies to convert to stock companies. Since that proclamation, two of Canada's largest mutual companies Manulife and Clarica Life Insurance had undergone successful demutualizations. MiddLife of Canada, in order to stand with or ahead of its competitors, also had to consider the task of undergoing the demutualization route. The question then becomes should the firm execute the plan, and if so, how soon should the firm begin the demutualization process. And finally, how much of the needed funds would the company be able to raise from this process.

Middlife is one of the largest mutual firms in Canada with over $260 billion in assets under management and a market share of approximately 11 percent. Would demutualization be very beneficial to them considering that Manulife, one of the two other mutual companies that had already converted to a publicly-traded company, did not fare as well as expected in its IPO and at the end of its first day of trading its stock price fell. (Exhibit 3a)

Demutualization and the Canadian Insurance Industry

Demutualization is the process of converting from a mutual company to a shareholder-owned company. A mutual company is owned by its participating policyholders, who have ownership, rights in the company. However, these ownership rights are not tradable or exchangeable and expire when the underlying policies terminate. Under the process of demutualization, shares, cash or other benefits are given to eligible policyholders in exchange for these ownership rights, because shares can be traded or sold in contrast to ownership rights which can not. In short, demutualization would provide the insurance company with more effective access to capital. In order to compete in various world markets, more effective access to capital is vital for new product development, new technology, distribution and marketing, and potential business acquisitions. Although insurance companies currently have adequate capital, demutualization would enhance the insurance company's competitive position by allowing it to raise capital from the equity markets and to have common shares available for acquisition purposes.

The Economy

Canada's Life and Health Insurance Association (CLHIA) has estimated that approximately 83% of the households in Canada own either individual or group life insurance (OSFI). The industry includes 132 federally-incorporated companies and foreign branches. Canada's life and health insurers account for approximately 12.8 per cent of the assets held by Canadian financial institutions. They participate in financial markets by providing long-term capital to both government and business. In 1997, Canadian insurers received $24 billion from foreign clients; this represented 44 per cent of all of their premium income. Ten million foreign residents own almost $1.1 trillion in life insurance policies underwritten by Canadian life and

health insurance companies. Demutualization of the four mutual life insurance companies would distribute an estimated $10-$12 billion among two million Canadians. The impact of this sudden influx of wealth to policyholders could reverberate throughout the Canadian economy, particularly its investment community.

Eligible policyholders would be able to choose to receive their demutualization benefits in the form of shares or cash. Canadian economists estimate that approximately 30% of the eligible policyholders would elect to cash in their allocations in lieu of receiving shares. It is estimated that 40% of eligible policyholders would sell their shares within three to six months following the demutualization. Therefore, the Canadian economy would not only be looking at the initial injection of wealth from those who choose to sell right away, but also a steady stream of capital over the course of the year. The effects are estimated to increase tax revenues and lead to gains of over 10,000 jobs. Financially, the aggregate market capitalization of the four life insurance firms could comprise approximately 5 percent of the Toronto Stock Exchange (TSE-300), 9% of the TSE-35, and 15% of the Financial Services Index of Canada.

Although demutualization was new to Canada, it has been successfully implemented in other markets around the world. According to the *Financial Times*, April 2, 1997, the United Kingdom allowed the process to occur that year, representing over 2.5% of the UK's total GDP. While Australia demutualized the Australian Mutual Provident Society (AMD), resulting in a float of $10.6 billion which was a 0.5% boost to its economy. In both cases, economic activity increased, mostly due to increased consumer spending which surpassed the impact of the proportional tax cuts.

DEMUTUALIZATION WITHIN THE CANADIAN INSURANCE INDUSTRY

As the insurance industry consolidates, mutual insurance companies have begun to recognize a growing need to find a better way to further develop their business by raising equity capital as well as undertaking acquisitions or strategic alliances. Four of the five largest life insurance companies in Canada are mutually-owned companies (The Mutual Life Assurance Company of Canada, The Manufacturers Life Insurance Company, Midd Life Assurance Company of Canada, and The Canada Life Assurance Company). These companies expressed an interest in demutualization in order to improve the efficiency and competitiveness of their companies through greater flexibility to access capital, increased market scrutiny, and a better corporate structure. Demutualization or mutual holding company reorganization permits a firm to raise equity capital and also offer stock as a currency for acquisition.

In August 1998, the Canadian government released a consultation paper outlining a proposed demutualization regime for all mutual life companies. The government's objective in developing the proposal was to ensure the protection of policyholder interests. Under the proposed regime, the entire value of a converting company would be allocated only to its voting policyholders. Furthermore, any proposal to demutualize would require the approval of these policyholders in order to proceed. After further consultations with stakeholders, legislation to facilitate the demutualization process was introduced in the House of Commons on November 30, 1998. On March 12, 1999, the Canadian Department of Finance enacted legislation (Bill C-59) enabling large mutual life insurance companies to issue shares to the public, (i.e., to "demutualize.").

Midd Life of Canada

Midd Life, which commenced operations in 1881, is a geographically diverse provider of insurance and wealth management products and services, with a worldwide staff of more than 12,000 employees and with operations throughout the US, Canada, Europe, Asia, and the Caribbean, in addition to more than 100,000 agents and distributors. The Company offers a broad range of financial products to individuals and groups through operations in Canada, the United States, the United Kingdom, India, Hong Kong, the Philippines, Indonesia, Japan, Bermuda and Chile. The company has a number of subsidiaries in various subsets of the financial services industry, including a discount brokerage firm, mutual fund companies (SPC United and MFS Investment Management) the first US mutual fund company), and money managers. Since its beginning in 1881 its business has grown to become a diversified global financial services company, with total assets under management of $301 billion with a surplus of $5.9 billion.

For the proposed demutualization, the number of shares allocated to each eligible policyholder would vary widely. The minimum allocation is 75 shares, while the average allocation is 378 shares. Policyholders would be sent a "Choices Guide" in January, which would set out the options they would have with respect to holding their shares or selling them for cash. Due to securities laws and administrative concerns in jurisdictions where Midd Life of Canada has very few eligible policyholders, policyholders residing in those jurisdictions would have their shares sold on their behalf in the IPO. In some very limited cases, eligible policyholders would receive policy credits. The actual IPO price should reflect the likely strength of demand for the shares, market conditions at the time of the pricing, and the financial results and future business prospects of the Company.

Clarica and Manulife Demutualizations

Clarica

This firm has been in operation as a mutual company owned by its participating policyholders since its inception in 1870. By 1998, the firm's policyholder equity was well over C$ 2.0 billion. In December 1997, the firm announced its intentions to convert to a shareholder-owned company. In June 1999, an overwhelming share of the policyholders approved of the plan and the firm listed 134.3 million common shares worth C$2.7 billion on the Toronto Stock Exchange and the Montreal Exchange. The share price opened at $24.00, which was 17% higher than the IPO offering price of $20.50, and trading was among the highest ever recorded on the TSE.

Manulife (Manufacturers Life Insurance Co.)

This firm was incorporated in 1887 and was formerly a public company. Its shareholders approved a mutualization plan in 1958 in a effort to avoid a foreign takeover. The company has $98 million in funds under management and a global consumer base of nearly 4.5 million, yet 70% of the firm's business is conducted outside of Canada. In 1999, the firm completed the demutualization, with a majority of 35% of the firm's 671,000 worldwide policyholders voting. Policyholders were entitled to choose between cash and/or Manulife Financial shares.

THE ANNOUNCEMENT

In March 1998, Midd Life of Canada announced its intention to seek policyholder approval to demutualize. On December 15, 1999, eligible policyholders voted 98 per cent in favor of Midd Life of Canada's plan . The marketing of the Initial Public Offering (IPO) of the shares of the new holding company is planned for April of 2000. Midd Life of Canada's demutualization and Initial Public Offering (IPO) are targeted for completion in May of 2000. The shares in the new holding company are intended to be listed on the Toronto, New York, London and Philippine stock exchanges.

Making the announcement, John D. Smith, Chairman and Chief Executive Officer of the 117 year old Midd Life said, "Becoming a publicly-traded company can provide substantial value for our policyholders and unlock our capital base, allowing the firm to compete effectively in the global financial services marketplace. Participating policy- holders would receive shares representing ownership of the Company that could be traded on stock exchanges, and they would retain the contractual benefits of their existing policies. Midd Life would gain the flexibility to raise capital to take advantage of domestic and international opportunities for growth." Policyholders would be given a choice of cash or shares, and in some cases may be offered policy credits. No date has been set for the policyholder vote, but management wants to complete the demutualization before May 2000.

CONCLUSION

Midd Life's financial advisors (Morgan Stanley & Co. and RBC Dominion Securities Inc.) have provided a valuation report which estimated that the company's range of public equity market values at September 24, 1999 was C$5.6 billion to $8.4 billion. Based on this estimate, and on a total of approximately 400 million shares being issued on demutualization, the estimated IPO price, as of September 24th 1999, would have ranged from C$14.00 to $25.00.

Midd Life’s Board was unsure of how to move forward as this was only an estimate and not a prediction of what price the shares would be in the future. Furthermore, the IPO is not expected to be completed before May of 2000, several months after this estimate was made. The actual prices of the shares at the time of the IPO or afterwards could be higher or lower than the estimate at September 24, 1999. Additionally, Manulife, Midd Life’s largest competitor, in its demutualization process had originally set a target range for its IPO of $18 to $24 a share. But by the time the week arrived, it was forced to cut the target to $18 to $20 a share having been met with only tepid interest from U.S. investors, as stock markets, and financial services stocks in particular, continued to plunge.

The case questions: how did the conversion from mutual company to a publicly-traded firm affect the overall value of Midd Life? Was the firm better off as a mutual company? Given the demutualization, what is the effect of the process on the firm’s capitalization rate and shareholder wealth?

Exhibit 1
Top Ten Individual Insurance Companies in Canada 1997

Company or group of companies	($ millions)	Market share %
Great-West and London Life	1,450	21.0
Mutual and Metropolitan Life	1,105	16.0
Manulife	605	8.8
Midd Life	465	6.7
Canada Life and Crown Life	447	6.5
Industrielle-Alliance	246	3.6
Transamerica Life	182	2.6
Desjardins-Laurentian	172	2.5
Maritime Life	170	2.5
Aetna Life	123	1.8

Based on: *Canadian Insurance*, Background Paper #1 of the Task Force on the Future of the Canadian Financial Services Sector – adjusted for the case Firm

Exhibit 2

Concentration in the Canadian Life and Health Insurance

Sector: Domestic General Assets, 1999

	Domestic General Assets ($ billions)	Market Share (%)
The Great-West Life Assurance Company	27.7	15.2
Clarica Life Insurance Company	25.2	13.8
Manulife Financial Corporation	20.8	11.4
Midd Life Financial Services .	17.4	9.5
Canada Life Financial Corporation	13.7	7.2
Total (top 5)	104.8	57.4
Industry Total	182.6	100.0

Note: Numbers may not add up due to rounding.
Based on information derived from: OSFI, Canadian Life and Health Insurance Association Inc.

Exhibit 3

Income Statement					
	98	97	96	95	94
REVENUE					
Annuities	2409	2,488	1,916	2,241	2,409
Life Insurance	3313	2,955	2,822	2,658	2,418
Health insurance	1110	1,602	994	941	789
Total Premiums	6832	6,505	5,732	5,840	5,616
Net investment income	4035	3,788	3,482	3,408	2,759
Fee income	2014	1,427	1,107	830	679
Total Revenue	**12881**	**11720**	**10321**	**10078**	**9054**
POLICY BENEFITS AND EXPENSES					
Payments to policyholders, beneficiaries and depositors:	8,492	7,620	6,459	6,242	4,676
Increase in actuarial liabilities	480	697	928	1,238	2,141
Commissions and Operating expenses	3,027	2,528	2,132	1,947	1,798
Interest Expnses	182	145	95	68	29
Taxes	274	201	221	177	120
Non controlling interest in Net Income of Subsidiaries	24	8	0	0	0
OPERATING INCOME	142	521	486	406	290
Confederation Life goodwill write-off	260	0	0	0	0
Net Income from Continuing Operations	142	**521**	**486**	**406**	**290**
	88	10	(4)	(1)	(14)
NET INCOME	54	511	**490**	**407**	**304**

Exhibit 3a

	Manulife	**Clarica**
Eligible Policy Holders	671,000	897,000
Size of IPO (#of Shares)	138,300,000	46,400,000
IPO Share Price	$18.00	$20.50
Price after First Day	$17.90	$24.05
Book Value of Surplus	$6,200,000,000	$2,300,000,000
Market Capitalization	$9,000,000,000	$2,700,000,000

Exhibit 4

Statement of Cash Flows

	98	97	96
OPERATING ACTIVITIES			
Net income	54	511	490
Items not affecting cash:			
Increase in actuarial and other policy related liabilities	999	1080	1281
Amortization of net deferred realized and unrealized gains on investments	(554)	(479)	(326)
Provisions (recoveries) for losses on investments	(16)	12	44
Future income taxes	75	7	24
Amortization of goodwill and deferred acquisition costs	199	132	83
Write-off of Confederation Life goodwill	260		
New business acquisition costs capitalized	(463)	(284)	(213)
Net increase in policy loans	(98)	(59)	(44)
Net change to securities transactions receivable/payable	(98)	41	162
Other changes in other assets and liabilities	22		18
Net cash provided by operating activities	380	961	1519
FINANCING ACTIVITIES			
Increase (decrease) in borrowed money	(184)	25	(106)
Issuance of cumulative capital securities, net of issuance costs		822	
	(184)	**847**	(106)
INVESTING ACTIVITIES			
Net increase in long-term investments	(390)	(628)	(1890)
Net cash change on acquisitions	(170)	(113)	
	(560)	(741)	**(1890)**
INCREASE (DECREASE) IN CASH AND SHORT-TERM SECURITIES	(364)	1067	(477)
Cash and short-term securities, beginning of period	2811	1703	2136
Changes due to fluctuations in exchange rates	155	41	44
CASH AND SHORT-TERM SECURITIES, end of period	2602	2811	1703

Exhibit 5

Consolidated Balance Sheet

	1997	1998
ASSETS		
Total General Fund Assets	49,700	54,319
Segregated Fund Assets	30,519	39,213
Other assets		
LIABILITIES		
Actuarial	32,018	34,498
Amounts	4,840	5,457
Policy benefits in process of payment	307	360
Borrowed funds	**462**	**306**
Accrued expenses and taxes	711	786
Future income taxes	287	328
Deferred net realized gains	2,006	3,057
Other liabilities	1,632	1,583
	42,263	46,375
Subordinated debt	728	764
Cumulative capital securities of a subsidiary	858	930
Surplus	5,715	6,081
Total general fund liabilities and surplus	49,564	54,150
Segregated funds contract liabilities	30,519	39,213
Equity	5,175	6,081

Exhibit 6

	Clients	Assets Under Mgt	Return on Assets	Return on Surplus	Est. Value per share
Mutual Life	3.3 mil	$38 billion	0.9%	10.4%	$14.50-$22.50
	Est. Distribution	**Surplus Value**	**Net Margin**	**Moody's & S&P**	
	$1.9-$2.9 billion	$2.2 billion	2.4%	Aa3, AA, A+	
Manulife	4.5 mil	$97 billion	1.4%	12.9%	$18.00-$22.00
	Est. Distribution	**Surplus Value**	**Net Margin**	**Moody's & S&P**	
	$9-$12 billion	$6.0 billion	6.7%	Aa2, AA+, A++	

CORPORATE STEWARDSHIP IN CHANGING BUSINESS AND ENVIRONMENTAL SETTINGS: UNITED AMERICAN ENTERPRISES

Mario Picconi, University of San Diego
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INTRODUCTION

Mining, a hot sector in the early and mid-1990's, experienced a severe downturn in the late 1990's without an end in sight. Meanwhile, high technology-based industries were flying high. They attracted huge amounts of capital as industries of all types pursued the goal of making themselves more efficient and profitable through technology. The management of a small publicly-traded Canadian mining company, United American Enterprises (UAE) perceived the need and the opportunity to redeploy its assets into a business with greater potential for growth and profit.

When the management of UAE decided to redeploy its assets into the IT industry, it had to assemble a team of individuals experienced in developing and marketing high technology products and services, as well as in promoting high technology investment opportunities in order to raise the substantial funds that would be needed to carry out a program of developing and marketing high technology products and services. It also had to select acquisition opportunities that would excite the management and would create enthusiasm among investors.

PROPOSED SOLUTION

To achieve this goal, UAE's newly assembled management had been reviewing a number of potential acquisitions in the IT industry in the US, where such companies were more abundant than in Canada. In a March 16, 1999 press release, UAE announced its first acquisition:

> United America Enterprises Ltd. ("UAE") has entered into a definitive agreement with privately held American Computer Hardware Corporation to acquire its Flashlink division. Flashlink provides information solutions software and hardware to the clinical laboratory industry. Under terms of the agreement, UAE will pay US$250,000 over 12 months and will issue up to a maximum of 300,000 shares and 400,000 warrants contingent on the achievement of revenue targets for Flashlink. Exercise prices for the warrants will be set at the market price of the shares at 12 months and 18 months from the closing. Closing of the transaction is subject to the approval of the Vancouver Stock Exchange.
>
> The acquisition of Flashlink positions UAE to provide Information Technology ("IT") hardware and software solutions to the healthcare industry. The recently developed *Flashlink I* is an advanced remote printer controller with form overlay software. It is used by clinical laboratories

> to automatically print laboratory test results to remote printers located in hospitals, clinics and doctors' offices. This product offers significant cost and efficiency advantages over the most commonly used laboratory test result transmission systems. Since its introduction in 1996, and throughout the ongoing development period, *Flashlink I* has been well-received by several major clinical laboratories. The division's revenues exceeded US$750,000 in 1998. *Flashlink I* will be marketed aggressively in North America and in Europe and the Company believes that it will be widely accepted by the clinical laboratory industry and by its client base of hospitals, clinics and doctors that use such products and services. The Company is currently developing *Flashlink II*, an improved model of *Flashlink I*, with additional capabilities that address specific market needs.

This acquisition, which was completed on June 30, 1999, finally established UAE as an active player in the IT industry, with a focus on Healthcare. The Flashlink products had features which provided meaningful advantages over the competing products and UAE management believed that it could further develop the Flashlink products to include an Application Service Provider ("ASP") product which had been received well by major customers.

In evaluating Flashlink, UAE management had become more aware of the condition of the healthcare IT market and had concluded that the clear and gigantic need for developing and providing technology in this industry offered outstanding business opportunities. This conclusion was supported by leading analysts in the financial industry who encouraged the company to pursue such opportunities.

UAE's second and most significant acquisition took a lengthy, tortuous path. On August 8, 1999, UAE announced its agreement to acquire WorldCare Technologies:

> **Vancouver BC, August 12, 1999: - (UAE: VSE) United America Enterprises Ltd.** ("UAE") today announced that it is acquiring majority control of WorldCare Technologies, Inc. ("WorldCare"), a subsidiary of WorldCare Limited, the largest international provider of telemedicine services to the healthcare industry. **(www.uaegroup.com)**
>
> WorldCare provides Web-based application solutions and services to the healthcare industry, allowing hospitals, laboratories and physicians to capture and manage a full range of multimedia medical data and images and to transport them globally across Internet or locally across Intranet networks. **(www.worldcaretech.com)**

The strategic value to UAE of the World Care acquisition was well articulated in a December 22,1999 press release which stated:

> **Strategic Value to UAE**
>
> - a core leading technology for an advanced eHealth connectivity, which was developed and tested to meet the needs of leading medical institutions
> - advanced JAVA based, ASP ready and Web-Centric technology that is immediately available, ready to be deployed, fully functioning and FDA cleared
> - an expert team of technology pioneers and an accomplished team of Internet application developers
> - an experienced team of sales and marketing professionals
> - an established client base and significant existing strategic marketing partnerships with Sun Microsystems, Data General and MarkCare Medical Systems
> - a global clinical network covering 13 countries and providing 24-hour a day services to 40 organizations worldwide

The acquisition terms specified in the August 12, 1999 press release stated:

> Under the terms of the agreement, UAE will pay a total of US$6 million, plus US$1 million in shares of UAE stock for a 60% interest in WorldCare, of which $5 million will be invested in the ongoing development of WorldCare's business and technology, and US$1 million cash, plus US $1 million in shares of UAE stock, to be priced 12 months from the closing of the acquisition, will be paid to World Care Limited. Of the US$5 million to be invested, US$2.5 million will be payable upon closing, with the remaining US$2.5 million payable in 6 months. Additionally, UAE has undertaken responsibility for the operating costs of WorldCare, retroactive to May 1999 and has agreed to the loan of an additional US $1 million for operating costs in the 13 - 24 month period after the closing date.

Due to lengthy documentation, due diligence, and difficulty in obtaining financing the transaction dragged on until late December, 1999, when the company announced that it had arranged a bridge financing under difficult terms to meet the requirements for a delayed partial initial closing:

> **Vancouver BC, December 23, 1999: - (UAE: VSE) United America Enterprises Ltd.** ("UAE") today announced that it has arranged a bridge loan from Magellan Software for payment of the first tranche of the payment for acquiring majority control of WorldCare Technologies, Inc. ("WorldCare"), a subsidiary of WorldCare Limited, the largest international provider of telemedicine services to the healthcare industry. An initial payment of US$500,000 has been made, and an additional US$3,000,000 is scheduled to be paid at closing of the first tranche on January 15, 2000. The final payment of US$2,500,000 is expected to be made within three months after closing of the first tranche. WorldCare will be a majority-owned subsidiary of UAE Acquisition Corp., a Delaware corporation wholly owned by UAE. **(www.uaegroup.com).**

The demanding terms of the bridge loan, made by principals of an IT company, are an indication of how hard pressed management felt in obtaining this financing:

> **Terms of the Agreements:**
> Under the terms of the purchase agreement, UAE will pay a total of US$6 million, plus US$1 million in shares of UAE stock for a 60% interest in WorldCare, of which $5 million will be invested in the ongoing development of WorldCare's business and technology, the remainder will be paid to World Care Limited.
>
> The convertible bridge loan was made by Magellan Software ("Magellan"), an Orange County, California based software developer concentrating on document imaging, workflow and Application Service Provider products. If the initial loan of US$500,000 is repaid by UAE at or prior to closing, Magellan will receive 15% of the shares of UAE Acquisition Corp. If the loan is not repaid, it can be converted into 33.33% of the equity of UAE Acquisition Corp. If Magellan pays an additional US$3 million to close the first tranche of the transaction, it will receive an aggregate of 80% of the shares of UAE Acquisition Corp.
>
> UAE is pursuing financing discussions with several parties to provide permanent financing for WorldCare and other proposed acquisitions, as well as for working capital.

The difficulty in obtaining long term financing continued to jeopardize UAE's bid to complete the transaction. During January, 2000, the company was required to obtain an

additional bridge loan from the Magellan principals, and it obtained only the minimum additional funds required to keep the transaction alive:

> **Vancouver BC, Monday, January 31, 2000: - (UAE: CDNX) United America Enterprises Ltd.** ("UAE") announced today that subscriptions have been received for the issue and sale of 3,000,000 special warrants at a price of $1.25 Cdn. per warrant for gross proceeds of $3,750,000. The special warrants were sold on a private placement basis, a portion of which was brokered.
>
> Each special warrant is convertible into one share and one-half of one non-transferable share purchase warrant without additional payment upon clearance for public distribution subject to regulatory approval. Each whole share purchase warrant entitles the holder to purchase one additional share of the Company at a price of $2.00 Cdn. for a period of one year from the date of issue of the share purchase warrants.
>
> Proceeds from the financing will be used to pay for the acquisition of WorldCare Technologies Inc. (www.worldcaretech.com)
>
> The Company will use its best efforts to file either an Annual Information Form or to file and obtain a final receipt for a prospectus to qualify for distribution of the securities issued upon exercise of the special warrants within 120 days of the date of closing of the placement.
>
> Separately, Magellan Software Inc. ("Magellan"), which has previously extended a Bridge Loan of US$500,000 to UAE, has made an additional Bridge Loan of US$250,000 to UAE towards the WorldCare acquisition pending closing of the Private Placement. The additional Bridge Loan is repayable on February 15, 2000, at an interest rate of 20% per annum. If the additional Bridge Loan is not repaid on February 15, 2000, Magellan will receive 300,000 UAE shares to hold as collateral for payment. In return for making the Bridge Loans to UAE, Magellan will have a minimum 15% interest in UAE Acquisition Corp, UAE's subsidiary which will hold WorldCare Technologies Inc. If the Bridge Loans are not repaid by February 29, 2000, Magellan will hold a 33.33% interest in UAE Acquisition Corp.

Finally, in March, 2000 the company arranged long term financing for Cdn$6,750,000 to repay the bridge loans and to make the payments required to complete the transaction:

> **Vancouver BC, Friday, February 18, 2000: - (UAE: CDNX) United America Enterprises Ltd.** ("UAE") proposes to raise up to Cdn.$6,750,000 by the issue of up to 3,000,000 special warrants at Cdn.$2.25 per special warrant. Each special warrant will be exchangeable into a unit consisting of one share of UAE and one-half of one share purchase warrant on the earlier of one year from the date of issue of the special warrants or the filing of a prospectus to qualify the distribution of the units or the filing of an annual information from as the case may be. UAE will use its best efforts to file a prospectus within 120 days of the closing of the private placement. A commission of 7% may be payable on a portion of the placement.
>
> The proceeds from the placement will be used to repay a bridge loan of US$750,000, incurred to complete the acquisition of a 60% interest in WorldCare Technologies Inc. ("WCT"), to pay the US$2,500,000 balance of the acquisition cost of WCT and for working capital.

In the meantime, UAE had been pursuing other acquisition targets to build its strategic asset portfolio and support for its program. On January 17, 2000, UAE announced its agreement to merge with another internet based healthcare IT provider, Virtx, Inc.:

> **Vancouver, BC, Thursday, January 13, 2000: - (UAE:CDNX) United America Enterprises Ltd.** ("UAE" or the "Company') has signed a Letter of Intent to merge VirTx, Inc ("VirTx") with the Company's affiliate, UAE Acquisition Corp. ("UAE Acquisition"). The closing of this transaction is subject to the completion of the acquisition of 60% of WorldCare Technologies

Inc. ("WCT") by UAE and to regulatory and shareholder approvals.

Dr. Murray I. Firestone, President and CEO of VirTx, Inc stated *"The combination of VirTx with UAE and the WorldCare Technologies OpenMedTM product creates a capability unique within the global healthcare community. It now makes possible a 'supply side' solution to the problem of global medical resource scarcity. We can make doctors and world-class medical decision-support available to treat patients any time, any place. This new company will not simply be another '.com' or 'website' but rather it will capture naturally-occurring communities within healthcare into network centric delivery systems".*

Under the terms of the agreement:
- VirTx, Inc, will merge into UAE Acquisition
- VirTx will hold 33.33% of the UAE Acquisition shares outstanding after the merger

The Company intends to maintain the VirTx name, in order to capitalize on the market presence and goodwill developed with clients and potential customers of VirTx. *"This strategic merger joins together the resources and expertise of two very well positioned eHealth solutions and services companies, establishing the basis for a formidable healthcare ASP offering",* stated Eman Safadi, CEO of WorldCare Technologies Inc.

Combining VirTx's Collaborative Medical NetworksTM with WorldCare Technologies' OpenMedTM Application Suite and with WCT's Global Telemedicine NetworkTM, the merged company will be well prepared to attract the full continuum of users of its services - hospitals, laboratories, physicians, healthcare organizations and consumers - as well as facilitating efficient and increased access to high-quality, specialty healthcare while decreasing the cost of delivering quality care globally. *"Our advanced JAVA based applications provide the new, stronger, merged company with the unique technology platform and advantage it will need to provide a rich collaborative clinical environment and dominate this new and rapidly expanding market segment",* said Mark Gillett, Vice President of Product Development for WorldCare Technologies Inc.

However, the proposed Virtx transaction was quickly dropped when the company determined that Virtx did not have the level of technology and implementation know-how that would complement WorldCare's.

Looking forward, the company conducted research to evaluate its competition in its industry. The report concluded:

Markets and Competition

Based on its research, management estimates that the connectivity and application solutions market offers in excess of US$400 Billion annual revenue opportunities, of which US$70 billion is solely radiology services-related. As the Company examines its market it is increasingly clear that the first generation of eHealth is beginning to take hold. Companies like Healtheon/WebMD, eMedSoft.com, HealthVision, CareInsight, TriZetto and others have entered the market. Many of these first generation participants have established partner and/or equity relationships with large, better established HIT vendors. While it is difficult to estimate the actual number of physicians signed up, management's research indicates that up to 2/3 of the physicians or physician groups with established HIT relationships have also established a relationship with a connectivity and application solutions provider. However, many competitor businesses focus on the delivery of either content (generalized reference information) or administrative management, the latter of which focuses on processing claims, insurance or billing events.

It is management's view that the key users (estimated to be in excess of 750,000 in the U.S. alone) who must be reached to make a real difference to the level of acceptance and adoption of

> eHealth technologies are the physicians, nurses and other care-givers who interact directly with patients and are involved in the delivery of care.
>
> The Company faces competition from the incumbents in both information management and imaging. It is likely to encounter additional competition from smaller Internet and network-driven start-up companies seeking to lever technological innovation and the step-change in both process and perception introduced by the Internet. **E**HealthEngines' plan has been and will continue to be to distinguish itself from competitors by delivering solutions that innovate across the gap between imaging and information in the healthcare IT sector by including both capabilities in its products. EHealthEngines' focus is on the clinical components of healthcare information, as opposed to the administrative and claims oriented transactions. EHealthEngines also differs from most competitors in that it enables the communication of clinical information and images, specifically between clinical providers and referring physicians with distinct and separate practices areas, whereas the majority of incumbent information management vendors focus on delivering solutions within a single enterprise. Management of the Company believes that it is well positioned to respond to competitive threats and technology delivery issues with its OpenMed™ application suite.

With optimism in UAE high and the .com sector stocks still booming, UAE was pressed by brokers to sell substantially more shares at more than $3 a share. Top management was divided about accepting the deal. Proponents contended that the size of the proposed financing was very attractive and would provide the critically needed capital to retain personnel for maintaining and upgrading the well received e-engine software. Those opposed to the deal contended that the new investors were getting too good a deal since the stock was selling at nearly $4 and rising. Lacking the support of the CEO, UAE did not accept the broker's offer.

By mid-2000, the bloom was coming off the ".com" industry and internet firm stock began declining in the financial markets. It became very difficult to obtain funds for the technology sector, and UAE attempted to raise financing, but was never able or willing to reach agreement on terms for such financing. As a result, working capital was being depleted. The first effects were felt by Flashlink, as UAE was no longer able to meet its financial needs and, after all of Flashlink's employees left, the company ceased operations toward the end of 1999. Next, with senior management of UAE no longer receiving their wages, the company finally decided to pursue the Flashlink business no longer. Thus it negotiated a settlement with the prior owner of Flashlink to reduce its remaining payment obligations and to cease Flashlink's operations:

> **Vancouver BC, July 7, 2000: - United America eHealth Technologies Inc. ("UAE")** today announced - pursuant to an agreement of settlement made between UAE and American Computer Hardware Corporation ("ACHC") - 200,000 shares of UAE, held in escrow pursuant to the acquisition by UAE of Flashlink Division of ACHC, have been released from escrow to ACHC and 100,000 shares have been surrendered to UAE for cancellation. Following cancellation of the 100,000 shares, the total number of common shares of UAE issued and outstanding is 10,367569.

With summer 2000 sales and the business outlook of e-health engines very encouraging, UAE was still hopeful of arranging some financing, even as share prices were decreasing for its e-engine. But by Fall 2000, the financial markets had dramatically cooled to the dot.com phenomenon. UAE's price plunged, closing off any additional equity financing. Running out of cash, the company announced personnel cuts and by the end of the year the stock was trading below $1.00 per share.

In early 2001, the company announced a financing—which was never completed. This fueled the market's concern that the company was unlikely to be able to continue operations as planned. As disagreement among management became pronounced, a management shakeup resulted. Thereafter, the company made various attempts to bring in financing—all failed.

Finally, a new CEO and President was brought in, in the hope that he would be able to turn the company around. He was unsuccessful. By Spring 2001, UAE was out of cash. With no cash to pay auditors, UAE was unable to file audited financial statements as required by CDNX. UAE's stock trading was halted at $.02 per share. The Epilogue suggests that the inability of the Boulle management to raise funds left the company vulnerable to the total destruction of its value.

Exhibit 1. Acquisition Press Release

UNITED AMERICA ENTERPRISES LTD.

UAE Acquires Flashlink—A Healthcare Communications Solution Provider

PRESS RELEASE

March 16, 1999
Symbol: VSE UAE

Vancouver, B.C. United America Enterprises Ltd. ("UAE") has entered into a definitive agreement with privately held American Computer Hardware Corporation to acquire its Flashlink division. Flashlink provides information solutions software and hardware to the clinical laboratory industry. Under terms of the agreement, UAE will pay US$250,000 over 12 months and will issue up to a maximum of 300,000 shares and 400,000 warrants contingent on the achievement of revenue targets for Flashlink. Exercise prices for the warrants will be set at the market price of the shares at 12 months and 18 months from the closing. Closing of the transaction is subject to the approval of the Vancouver Stock Exchange.

The acquisition of Flashlink positions UAE to provide Information Technology ("IT") hardware and software solutions to the healthcare industry. The recently developed *Flashlink I* is an advanced remote printer controller with form overlay software. It is used by clinical laboratories to automatically print laboratory test results to remote printers located in hospitals, clinics and doctors' offices. This product offers significant cost and efficiency advantages over the most commonly used laboratory test result transmission systems. Since its introduction in 1996, and throughout the ongoing development period, *Flashlink I* has been well-received by several major clinical laboratories. The division's revenues exceeded US$750,000 in 1998. *Flashlink I* will be marketed aggressively in North America and in Europe and the Company believes that it will be widely accepted by the clinical laboratory industry and by its client base of hospitals, clinics and doctors that use such products and services. The Company is currently developing *Flashlink II*, an improved model of *Flashlink I*, with additional capabilities that address specific market needs.

Patrick Cox, Executive Vice President of Flashlink, believes that the acquisition by UAE will allow Flashlink to achieve its full potential. "We are very pleased to be joining UAE. With UAE's focus on Information Technology, Flashlink provides a great opportunity for UAE to take our existing business and develop it into a significant participant in the healthcare industry." Al Fricke, the Chief Operating Officer of Flashlink, says that "With the technical expertise and the marketing support that UAE will provide, Flashlink can become the premier product and provide the best service in the industry. We at Flashlink are enthusiastic about the opportunity to become a leader in our field."

Franco Boulle, Chairman and CEO of UAE, explains that "With Flashlink, UAE takes a significant step in executing its core strategy of adding value to Information Technology infrastructure that collects, transmits, stores, analyzes, and disseminates medical/clinical information. UAE intends to acquire additional complementary technologies and services that will strengthen and expand its capability to meet this strategic market need."

United America Enterprises Ltd. is an Information Technology company. UAE is acquiring IT service-oriented organizations within selected industry sectors in the US and Europe and will develop, install and support selected IT products within those industry sectors.

On behalf of the Board of Directors,

"Franco Boulle"

Franco Boulle
Chairman and CEO

"Alex Budzinsky"

Alex Budzinsky
Executive Vice President

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No Stock Exchange has approved nor disapproved the information contained herein

Exhibit 2. Private Placement Press Release

UNITED AMERICA ENTERPRISES LTD.

NEWS RELEASE

UAE ACQUIRES FLASHLINK—COMPLETES PRIVATE PLACEMENT

June 30, 1999 **VSE Symbol: UAE**

Atten: Business Editors **Website: www.uaegroup.com**

Vancouver, B.C. The Vancouver Stock Exchange has accepted notice of the Company's Change of Business and the acquisition from American Computer Hardware Corporation of its Flashlink division.

Flashlink provides information solutions software and hardware to the clinical laboratory industry. Under terms of the agreement, UAE will pay US$250,000 over 12 months ($100,000 on closing, $100,000 180 days from closing, and $50,000 one year from closing) and will issue up to a maximum of 300,000 shares and 400,000 warrants contingent on the achievement of revenue targets for Flashlink. The common shares will be issued upon the achievement by Flashlink of the following milestones:

1. 100,000 shares if the Flashlink business achieves gross revenues of at least US$2,500,000 for the 12 month period commencing from the closing, plus

2. 100,000 shares if the Flashlink business achieves gross revenues of US$3,000,000 for the 12 month period commencing on the closing, plus

3. 100,000 shares if the Flashlink business achieves gross revenues of US$3,500,000 for the 12 month period commencing on the closing.

The warrants will be issued upon the achievement by Flashlink of the following milestones:

1. 100,000 warrants if the Flashlink business achieves gross revenues of US$3,000,000 for the 12 month period commencing on the closing, plus

2. 100,000 warrants if the Flashlink business achieves gross revenues of US$3,500,000 for the 12 month period commencing on the closing, plus

3. 100,000 warrants if the Flashlink business achieves gross revenues of US$3,000,000 for the six month period beginning 12 months after the closing, plus

4. 100,000 warrants if the Flashlink business achieves gross revenues of US$3,500,000 for the six month period beginning 12 months after the closing.

The shares, when issued, will not be subject to a hold period.

Exercise prices for the warrants will be set at the market price of the shares at 12 months and 18 months from the closing.

In addition, UAE will spend at least US$140,000 on the operation of the Flashlink business during the 12 month period following the closing.

A finder's fee of US$20,000 is payable to Patrick Cox.

The acquisition of Flashlink positions UAE to provide Information Technology ("IT") hardware and software solutions to the healthcare industry. Flashlink provides Information Technology based clinical result delivery solutions to clinical laboratories.

Since its introduction in January 1997, and throughout the ongoing development period, Flashlink has established itself as a leader in the remote printing marketplace, gaining the acceptance in two of the three largest laboratories in the world, as well as in medium and smaller-sized facilities.

Despite increased competition and regulation, healthcare organizations must nevertheless find ways to improve clinical outcomes, enhance service and efficiency while reducing costs and increasing revenues. Flashlink's solutions address these substantial challenges, providing:

- Electronic streamlining of all information systems between clinical and administrative departments.
- Patient information to healthcare providers when and where they need it at a cost that fits their budgets.
- Storage and management of patient data in a readily accessible manner that supports decision making for both clinicians and healthcare business managers.
- Maintenance-free information-solutions software and hardware to the clinical laboratory industry, removing time-consuming and labour intensive administrative activity.

The recently developed ***Flashlink Classic*** is an advanced remote printer controller with form-overlay software. It is used by clinical laboratories to automatically print laboratory test results to remote printers located in hospitals, clinics and doctors' offices. This product offers significant cost and efficiency advantages over the most commonly used laboratory test result transmission systems. *Flashlink Classic* will be marketed aggressively in North America and in Europe. UAE believes that Flashlink will be widely accepted by the clinical laboratory industry, and by its client base of hospitals, clinics and doctors that use such products and services.

The Company recently launched ***Flashlink Premier***, an after-sale system maintenance service and, ***Flashlink Direct***, a turnkey web-based clinical result delivery and customer service program.

With its current and planned product/service suite, the acquisition of Flashlink enables UAE to play a meaningful role in helping healthcare organizations address some of the issues outlined above by providing technology that collects, transmits, stores, analyzes and disseminates medical/clinical information across the entire healthcare enterprise. Future acquisitions of complementary and synergistic applications and companies will continue to enhance the ability of UAE to respond to the healthcare industry's need for connectivity solutions.

Patrick Cox, Executive Vice President of Flashlink, believes that the acquisition by UAE will allow Flashlink to achieve its full potential. "We are very pleased to be joining UAE. With UAE's focus on Information Technology, Flashlink provides a great opportunity for UAE to take our existing business and develop it into a significant participant in the healthcare industry." Al Fricke, the Chief Operating Officer of Flashlink, says that "With the technical expertise and the marketing support that UAE will provide, Flashlink can become the premier product and provide the best service in the industry. We at Flashlink are enthusiastic about the opportunity to become a leader in our field."

Franco Boulle, Chairman and CEO of UAE, explains that "With Flashlink, UAE takes a significant step in executing its core strategy of adding value to Information Technology infrastructure that collects, transmits, stores, analyzes, and disseminates medical/clinical information. UAE intends to acquire additional complementary technologies and services that will strengthen and expand its capability to meet this strategic market need."

Financing

The Vancouver Stock Exchange has accepted notice of a private placement of 1,500,000 units at $0.80 per unit to raise $1,200,000. Each unit consists of one share and one share purchase warrant. Each share purchase warrant will entitle the holder to purchase an additional share of the Company after November 1, 1999 at the greater of $1.25 per share or the issue or conversion price of securities issued on a financing, if any, concluded by the Company, between July 1, 1999 and November 1, 1999. The warrants will expire April 30, 2001. The proceeds of the financing will be used for the acquisition and development of Flashlink, future acquisitions and working capital. The securities are subject to a hold period expiring April 30, 1999.

Sponsorship and Financial Advisor

The Company has also entered into non-exclusive financial advisory and sponsorship contracts with Canaccord Capital Corporation to assist the company with the approval process related to the acquisition of Flashlink and future financing requirements, for which Canaccord Capital Corporation has received 50,000 shares of the Company, cash payments and additional shares to be issued upon the successful conclusion of a future financing.

For more information, visit our websites at: www.uaegroup.com and www.flashlinkit.com

United America Enterprises Ltd. is a healthcare information technology company focused on providing web-based applications for the transfer of clinical data, in a more timely and cost-effective effective manner.

On behalf of the Board of Directors,

"Franco Boulle"

Franco Boulle
Chairman and CEO

"Alex Budzinsky"

Alex Budzinsky
Executive Vice President

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No Stock Exchange has approved nor disapproved the information contained herein

Exhibit 3. Acquisition Press Release

UNITED AMERICA ENTERPRISES LTD.

UAE TO ACQUIRE WORLDCARE TECHNOLOGIES INC. -

A World Leader in Web-based applications and services to the Healthcare Industry

FOR IMMEDIATE RELEASE: **Attn: Technology and Business Editors**

Vancouver BC, August 12, 1999: - (UAE: VSE) United America Enterprises Ltd. ("UAE") today announced that it is acquiring majority control of WorldCare Technologies, Inc. ("WorldCare"), a subsidiary of WorldCare Limited, the largest international provider of telemedicine services to the healthcare industry. **(www.uaegroup.com)**

WorldCare provides Web-based application solutions and services to the healthcare industry, allowing hospitals, laboratories and physicians to capture and manage a full range of multimedia medical data and images and to transport them globally across Internet or locally across Intranet networks. **(www.worldcaretech.com)**

UAE is acquiring technology owned by WorldCare, which is already:

- Installed in major US hospitals
- Operating in over 12 countries at 40 different locations
- Tested, proven and accepted worldwide
- Generating revenue

"The acquisition of the robust and proven technologies developed by WorldCare means we can now move ahead with the launch of our unique Internet-based healthcare connectivity services concept. This is a first in the world of medicine and will transform the delivery of clinical information worldwide." said Franco Boulle, Chairman and CEO of UAE.

"The relationship with UAE is an excellent fit, providing WorldCare with the means to showcase its worldclass technologies and continue its rapid market expansion and product development." said Nasser Menhall, CEO of WorldCare Limited. "The *agreement with UAE will provide WorldCare with the necessary resources to execute its exciting business plans."*

Terms of the Agreement:
Under the terms of the agreement, UAE will pay a total of US$6 million, plus US$1 million in shares of UAE stock for a 60% interest in WorldCare, of which $5 million will be invested in the ongoing development of WorldCare's business and technology, and US$1 million cash, plus US $1 million in shares of UAE stock, to be priced 12 months from the closing of the acquisition, will be paid to World Care Limited. Of the US$5 million to be invested, US$2.5 million will be payable upon closing, with the remaining US$2.5 million payable in 6 months. Additionally, UAE has undertaken responsibility for the operating costs of WorldCare, retroactive to May 1999 and has agreed to the loan of an additional US $1 million for operating costs in the 13 - 24 month period after the closing date. The closing of this transaction is subject to the approval of the Vancouver Stock Exchange.

On behalf of the Board of Directors:

"Franco Boulle"

Franco Boulle
Chairman and CEO

"Alex Budzinsky"

Alex Budzinsky
Executive Vice President

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Mexal Group Limited - Bob Whittington
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E-mail: mexal@dircon.co.uk

No Stock Exchange has approved nor disapproved the information contained herein

Notes to Editors: -

About WorldCare Technologies:
Investing over 5 years in development, WorldCare has established a proven track record of supplying robust telemedicine technology platforms that power Internet and Intranet networks. WorldCare has successful operations in over 12 countries at over 40 locations, and is connected to major servers located in Cambridge, Massachusetts and in London, UK.

The initial thrust of the WorldCare program included the development of technology to support the capture, transmission and storage of high density clinical data, such as x-rays, MRI scans, pathology slides and other multimedia medical data. Users of this technology are the major US teaching and research hospitals which comprise the WorldCare Telemedicine Consortium: **Partners HealthCare System, Inc. (including Massachusetts General Hospital, Brigham and Women's Hospital, Dana-Farber Cancer Institute and Spaulding Rehabilitation Hospital), The Cleveland Clinic Foundation, Duke University Medical Center, and Johns Hopkins Medicine.**

WorldCare's **OpenMed**^{TM} family of products is an intelligent, multi-modality, multi-specialty, clinical management platform for the creation, management, referral, transmission, storage and display of multimedia CPR (Computerized Patient Record) across any network. WorldCare has achieved significant success and has been awarded a number of prestigious projects in competition with major companies involved in the telemedicine arena.

Existing contracts are with nationally sponsored health services in Saudi Arabia, Jordan, Malaysia and other countries. Negotiations are under way for new contracts in Spain, Portugal, Chile and Venezuela. WorldCare is also presently engaged in a number of marketing discussions in Eastern Europe, Central and South America and Asia. New initiatives are being put in place by UAE, geared towards expanding the target markets. New sales efforts will include the US, Canada and Western Europe, where WorldCare can play a significant role in the secure, efficient and timely delivery of healthcare information over Internet and Intranet platforms.

Strategic Value to UAE:
The acquisition of WorldCare provides UAE with:

- a core technology for an advanced healthcare connectivity platform, which was developed to meet the needs of leading medical institutions
- advanced Web-enabled technology that is immediately available, successfully functioning and FDA approved
- a expert team of technology pioneers and an accomplished team of Internet application developers
- an experienced team of sales and marketing professionals
- an established client base, and
- significant existing strategic marketing partnerships.

UAE's strategy has been to acquire leading edge technologies, starting with the acquisition of **FlashlinkIT, (www.flashlinkit.com)** which facilitates and simplifies the delivery of laboratory results for more than 120 laboratories at more than 3,000 sites in the US. UAE plans to incorporate these core technologies and application solutions into its healthcare portal, making the technology widely and readily accessible over the Internet, positioning UAE to become a significant leader in the market for healthcare connectivity.

This healthcare portal will radically simplify and enhance 'connectivity' among physicians, hospitals, laboratories, healthcare institutions and healthcare insurers. Healthcare providers will have easy, timely and secure Internet-based access to clinical data and patient records, while providing immediate and significant time and cost efficiencies in the delivery of clinical information and healthcare service

Exhibit 4. Acquisition Press Release

UNITED AMERICA ENTERPRISES LTD.

UAE Joined by Industry Partner to Acquire Worldcare Technologies Inc. -

A World Leader in Web-based applications and services to the Healthcare Industry

FOR IMMEDIATE RELEASE: **Attn: Technology and Business Editors**

Vancouver BC, December 23, 1999: - (UAE: VSE) United America Enterprises Ltd. ("UAE") today announced that it has arranged a bridge loan from Magellan Software for payment of the first tranche of the payment for acquiring majority control of WorldCare Technologies, Inc. ("WorldCare"), a subsidiary of WorldCare Limited, the largest international provider of telemedicine services to the healthcare industry. An initial payment of US$500,000 has been made, and an additional US$3,000,000 is scheduled to be paid at closing of the first tranche on January 15, 2000. The final payment of US$2,500,000 is expected to be made within three months after closing of the first tranche. WorldCare will be a majority-owned subsidiary of UAE Acquisition Corp., a Delaware corporation wholly owned by UAE. **(www.uaegroup.com).**

WorldCare provides Web-based application solutions and services to the healthcare industry, allowing hospitals, laboratories and physicians to capture and manage a full range of multimedia medical data and images and to transport them globally across Internet or locally across Intranet networks. **(www.worldcaretech.com)**

UAE is acquiring technology owned by WorldCare, which is already:

- Installed in major US hospitals
- Operating in over 12 countries at 40 different locations
- Tested, proven and accepted worldwide
- Generating revenue

"The acquisition of the robust and proven technologies developed by WorldCare means we can now move ahead with the launch of our unique Internet-based healthcare connectivity services concept. This is a first in the world of medicine and will transform the delivery of clinical information worldwide." said Franco Boulle, Chairman and CEO of UAE.

"The relationship with UAE is an excellent fit, providing WorldCare with the means to showcase its worldclass technologies and continue its rapid market expansion and product development." said Nasser Menhall, CEO of WorldCare Limited. "The *agreement with UAE will provide WorldCare with the necessary resources to execute its exciting business plans."*

Terms of the Agreements:
Under the terms of the purchase agreement, UAE will pay a total of US$6 million, plus US$1 million in shares of UAE stock for a 60% interest in WorldCare, of which $5 million will be invested in the ongoing development of WorldCare's business and technology, the remainder will be paid to World Care Limited.

The convertible bridge loan was made by Magellan Software ("Magellan"), an Orange County, California based software developer concentrating on document imaging, workflow and Application

Service Provider products. If the initial loan of US$500,000 is repaid by UAE at or prior to closing, Magellan will receive 15% of the shares of UAE Acquisition Corp. If the loan is not repaid, it can be converted into 33.33% of the equity of UAE Acquisition Corp. If Magellan pays an additional US$3 million to close the first tranche of the transaction, it will receive an aggregate of 80% of the shares of UAE Acquisition Corp.

UAE is pursuing financing discussions with several parties to provide permanent financing for WorldCare and other proposed acquisitions, as well as for working capital.

The closing of this transaction is subject to the approval of the Vancouver Stock Exchange.

On behalf of the Board of Directors:

"Franco Boulle" ***"Alex Budzinsky"***

Franco Boulle
Chairman and CEO

Alex Budzinsky
Executive Vice President

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E-mail: mexal@dircon.co.uk

No Stock Exchange has approved nor disapproved the information contained herein

Notes to Editors: -

About WorldCare Technologies:
Investing over 5 years in development, WorldCare has established a proven track record of supplying robust telemedicine technology platforms that power Internet and Intranet networks. WorldCare has successful operations in over 12 countries at over 40 locations, and is connected to major servers located in Cambridge, Massachusetts and in London, UK.

The initial thrust of the WorldCare program included the development of technology to support the capture, transmission and storage of high density clinical data, such as x-rays, MRI scans, pathology slides and other multimedia medical data. Users of this technology are the major US teaching and research hospitals which comprise the WorldCare Telemedicine Consortium: **Partners HealthCare System, Inc. (including Massachusetts General Hospital, Brigham and Women's Hospital, Dana-Farber Cancer Institute and Spaulding Rehabilitation Hospital), The Cleveland Clinic Foundation, Duke University Medical Center, and Johns Hopkins Medicine.**

WorldCare's **OpenMed™** family of products is an intelligent, multi-modality, multi-specialty, clinical management platform for the creation, management, referral, transmission, storage and display of multimedia CPR (Computerized Patient Record) across any network. WorldCare has achieved significant success and has been awarded a number of prestigious projects in competition with major companies involved in the telemedicine arena.

Existing contracts are with nationally sponsored health services in Saudi Arabia, Jordan, Malaysia and other countries. Negotiations are under way for new contracts in Spain, Portugal, Chile and Venezuela. WorldCare is also presently engaged in a number of marketing discussions in Eastern Europe, Central and South America and Asia. New initiatives are being put in place by UAE, geared towards expanding the target markets. New sales efforts will include the US, Canada and Western Europe, where WorldCare can play a significant role in the secure, efficient and timely delivery of healthcare information over Internet and Intranet platforms.

Strategic Value to UAE:
The acquisition of WorldCare provides UAE with:

- a core technology for an advanced healthcare connectivity platform, which was developed to meet the needs of leading medical institutions
- advanced Web-enabled technology that is immediately available, successfully functioning and FDA approved
- a expert team of technology pioneers and an accomplished team of Internet application developers
- an experienced team of sales and marketing professionals
- an established client base, and
- significant existing strategic marketing partnerships.

UAE plans to incorporate these core technologies and application solutions into its healthcare portal, making the technology widely and readily accessible over the Internet, positioning UAE to become a significant leader in the market for healthcare connectivity.

This healthcare portal will radically simplify and enhance 'connectivity' among physicians, hospitals, laboratories, healthcare institutions and healthcare insurers. Healthcare providers will have easy, timely and secure Internet-based access to clinical data and patient records, while providing immediate and significant time and cost efficiencies in the delivery of clinical information and healthcare service

Exhibit 5. Merger Press Release

Thursday January 13,2000

UNITED AMERICA ENTERPRISES LTD. UAE: CDNX UAE TO MERGE WITH VIRTX, INC - ESTABLISHING A GLOBAL HEALTHCARE 'ASP'

The merger will establish the first global healthcare Application Service Provider ("ASP") and will join VirTx's US and international Collaborative Medical NetworksTM with WorldCare Technologies' international healthcare networks

.

The ASP will offer a full suite of clinical and other healthcare applications, enabling the linking of medical centers of excellence, physicians and consumers; increasing access globally to worldclass specialty healthcare.

Vancouver, BC, Thursday, January 13, 2000: - (UAE:CDNX) United America Enterprises Ltd. ("UAE" or the "Company') has signed a Letter of Intent to merge VirTx, Inc ("VirTx") with the Company's affiliate, UAE Acquisition Corp. ("UAE Acquisition"). The closing of this transaction is subject to the completion of the acquisition of 60% of WorldCare Technologies Inc. ("WCT") by UAE and to regulatory and shareholder approvals.

Dr. Murray I. Firestone, President and CEO of VirTx, Inc stated *"The combination of VirTx with UAE and the WorldCare Technologies OpenMedTM product creates a capability unique within the global healthcare community. It now makes possible a 'supply side' solution to the problem of global medical resource scarcity. We can make doctors and world-class medical decision-support available to treat patients any time, any place. This new company will not simply be another '.com' or 'website' but rather it will capture naturally-occurring communities within healthcare into network centric delivery systems".*

Under the terms of the agreement:

- VirTx, Inc, will merge into UAE Acquisition
- VirTx will hold 33.33% of the UAE Acquisition shares outstanding after the merger

The Company intends to maintain the VirTx name, in order to capitalize on the market presence and goodwill developed with clients and potential customers of VirTx. *"This strategic merger joins together the resources and expertise of two very well positioned eHealth solutions and services companies, establishing the basis for a formidable healthcare ASP offering",* stated Eman Safadi, CEO of WorldCare Technologies Inc.

Combining VirTx's Collaborative Medical NetworksTM with WorldCare Technologies' OpenMedTM Application Suite and with WCT's Global Telemedicine NetworkTM, the merged company will be well prepared to attract the full continuum of users of its services - hospitals, laboratories, physicians, healthcare organizations and consumers - as well as facilitating efficient and increased access to high-quality, specialty healthcare while decreasing the cost of delivering quality care globally. *"Our advanced JAVA based applications provide the new, stronger, merged company with the unique technology platform and advantage it will need to provide a rich collaborative clinical environment and dominate this new and rapidly expanding market segment",* said Mark Gillett, Vice President of Product Development for WorldCare Technologies Inc.

UAE is greatly enhanced by the merger with a partner offering a strong market presence, specific expertise and experience in the architecture and delivery of complex healthcare solutions, and one that brings to the table a capable and experienced team of medical, technology and marketing professionals.

About VirTx:
VirTx (**www.virtx.net**), a privately held company, is the leading provider of Collaborative Medical Networks TM . The name VirTx connotes the ***virtual treatment*** that can occur in the new carespace created ***@ the intersection of healthcare and technology.*** Web-enabled applications and networking capabilities, including interactive videoconferencing, facilitate emerging models for the delivery of healthcare in the Digital Age.

Already a significant agent for the OpenMedTM Application Suite developed by WorldCare Technologies; VirTx has recently deployed a statewide network of its clinical data transmission services in conjunction with a major US healthplan. Having established a worldwide presence, VirTx Collaborative Medical Network TM solutions are able to support multi-media tele-medicine, tele-health, and tele-science collaboration, end-to-end- across the bandwidth spectrum as well as the continuum of care, anywhere in the world.

About WorldCare Technologies Inc.:
WorldCare Technologies Inc. (**www.worldcaretech.com**) is the leading supplier of internet-enabled clinical information and image management solutions for electronic healthcare (**eHealth**) delivery among physicians, hospitals, laboratories and imaging centres. WCT's solutions power a Global Telemedicine NetworkTM (GTN) encompassing 12 countries worldwide and connecting some of the most famous hospitals worldwide. The GTN includes 4 leading teaching hospitals in the United States, and internationally prominent hospital groups such as the UCS Hospital Group in Portugal, Pantai Hospital in Malaysia, and King Faisal Hospital in Saudi Arabia.

WCT has established a proven track record delivering advanced clinical applications with WCTs OpenMedTM application suite, integrating internet-based clinical information management software with sophisticated web-based imaging, multimedia and communication capabilities. The OpenMedTM application suite combines intelligent, multi-modality, multi-specialty, clinical data management with the capture, transmission, storage and display of a broad range of medical information across the Internet, as well as public networks and Virtual Private Networks.

About United America Enterprises Limited:
UAE's (**www.uaegroup.com**) strategy has been to acquire leading edge technologies and to incorporate these core technologies and application solutions into its healthcare ASP, making the technology widely and readily accessible over the Internet, positioning UAE to become a significant leader in the market for healthcare connectivity.

More detailed information can be retrieved from the company web site at **www.uaegroup.com**
...Internet and Web technologies, providing unique solutions to healthcare delivery problems…

Exhibit 6. Private Placement Announcement

UNITED AMERICA ENTERPRISES LTD.
UAE : CDNX

FOR IMMEDIATE RELEASE: Attn: Editors - Business, Healthcare, Internet, Technology

UAE'S $3,750,000 PRIVATE PLACEMENT FULLY SUBSCRIBED

Vancouver BC, Monday, January 31, 2000: - (UAE: CDNX) United America Enterprises Ltd. ("UAE") announced today that subscriptions have been received for the issue and sale of 3,000,000 special warrants at a price of $1.25 Cdn. per warrant for gross proceeds of $3,750,000. The special warrants were sold on a private placement basis, a portion of which was brokered.

Each special warrant is convertible into one share and one-half of one non-transferable share purchase warrant without additional payment upon clearance for public distribution subject to regulatory approval. Each whole share purchase warrant entitles the holder to purchase one additional share of the Company at a price of $2.00 Cdn. for a period of one year from the date of issue of the share purchase warrants.

Proceeds from the financing will be used to pay for the acquisition of WorldCare Technologies Inc. (www.worldcaretech.com)

The Company will use its best efforts to file either an Annual Information Form or to file and obtain a final receipt for a prospectus to qualify for distribution of the securities issued upon exercise of the special warrants within 120 days of the date of closing of the placement.

Separately, Magellan Software Inc. ("Magellan"), which has previously extended a Bridge Loan of US$500,000 to UAE, has made an additional Bridge Loan of US$250,000 to UAE towards the WorldCare acquisition pending closing of the Private Placement. The additional Bridge Loan is repayable on February 15, 2000, at an interest rate of 20% per annum. If the additional Bridge Loan is not repaid on February 15, 2000, Magellan will receive 300,000 UAE shares to hold as collateral for payment. In return for making the Bridge Loans to UAE, Magellan will have a minimum 15% interest in UAE Acquisition Corp, UAE's subsidiary which will hold WorldCare Technologies Inc. If the Bridge Loans are not repaid by February 29, 2000, Magellan will hold a 33.33% interest in UAE Acquisition Corp.

Magellan Software Inc. (www.magsoft.com) is a software developer concentrating on document imaging, workflow management, documents archival, retrieval and delivery through Intranets and the Internet. Magellan has also deployed a document solution for ASP (Application Service Provider) on the Web. Magellan is headquartered in Orange County, California.

For more information see the Company website at www.uaegroup.com

On behalf of the Board of Directors:

"Franco Boulle" ***"Alex Budzinsky"***

Franco Boulle Alex Budzinsky

Chairman and CEO Executive Vice President

For more information, please contact:

Patrick Cox, IR & Corporate Communications
Phone: 949-609-1940
Fax: 949-609-1930
E-mail: pcox@uaegroup.com

Mexal Group Limited - Bob Whittington
Phone: 44-(0)171-432-0394
Fax: 44-(0)171-432-0516
E-mail: mexal@dircon.co.uk

Corinna de Beer, IR & Corporate Communications
Phone: 416-944-1410
Fax: 416-944-9048
E-mail: cdebeer@uaegroup.com

No Stock Exchange has approved or disapproved the information contained herein

Exhibit 7. Warrant Announcement

UNITED AMERICA ENTERPRISES LTD.
UAE : CDNX

UAE TO RAISE UP TO $6,750,000

Vancouver BC, Friday, February 18, 2000: - (UAE: CDNX) United America Enterprises Ltd. ("UAE") proposes to raise up to Cdn.$6,750,000 by the issue of up to 3,000,000 special warrants at Cdn.$2.25 per special warrant. Each special warrant will be exchangeable into a unit consisting of one share of UAE and one-half of one share purchase warrant on the earlier of one year from the date of issue of the special warrants or the filing of a prospectus to qualify the distribution of the units or the filing of an annual information from as the case may be. UAE will use its best efforts to file a prospectus within 120 days of the closing of the private placement. A commission of 7% may be payable on a portion of the placement.

The proceeds from the placement will be used to repay a bridge loan of US$750,000, incurred to complete the acquisition of a 60% interest in WorldCare Technologies Inc. ("WCT"), to pay the US$2,500,000 balance of the acquisition cost of WCT and for working capital.

The placement is subject to regulatory approval.

For more information see the Company website at www.uaegroup.com

On behalf of the Board of Directors:

"Franco Boulle"
Franco Boulle
Chairman and CEO

"Alex Budzinsky"
Alex Budzinsky
Executive Vice President

For more information, please contact:

Patrick Cox, IR & Corporate Communications
Phone: 949-609-1940
Fax: 949-609-1930
E-mail: pcox@uaegroup.com

Mexal Group Limited - Bob Whittington
Phone: 44-(0)171-432-0394
Fax: 44-(0)171-432-0516
E-mail: mexal@dircon.co.uk

Corinna de Beer, IR & Corporate Communications
Phone: 416-944-1410
Fax: 416-944-9048

E-mail: cdebeer@uaegroup.com

No Stock Exchange has approved or disapproved the information contained herein

Exhibit 8. Reprint of Annual Report

UNITED AMERICA eHEALTH TECHNOLOGIES INC.
(Formerly United America Enterprises Ltd.)

One Cambridge Centre
Cambridge, Massachusetts

ANNUAL INFORMATION FORM

AUGUST 21, 2000

(For the Year Ended May 31, 2000)

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

With the exception of historical information, matters discussed within this document contain forward-looking statements. Such forward-looking statements are inherently uncertain, and investors must recognize that actual financial results and event outcomes may differ from management's expectations. When used, the words "believes, expects, or intend to" and similar conditional expressions are intended to identify forward-looking statements. Such statements are subject to certain risks and uncertainties and actual results could differ materially from those expressed in any of the forward-looking statements. Such risks and uncertainties include, but are not limited to, (i) conditions in the economy, in general, or the Information Technology ('IT') industry sector, in particular, (ii) the timely development and market acceptance of specialized IT products and services, (iii) competitive factors, (iv) demand for such specialized IT products and services, (v) and other risks described in the Company's press releases, marketing literature, reports and regulatory and exchange filings.

CURRENCY EXCHANGE RATES

Unless otherwise indicated, all currency amounts herein are stated in Canadian dollars. The following table reflects the rate of exchange of the Bank of Canada for Canadian dollars per one United States dollar in effect at the end of the following periods and the average rates of exchange during such periods.

United States Dollars	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**
Rate at December 31	1.xx	1.4433	1.5333	1.4305	1.3706	1.3640
Average Annual Rate	1.xx	1.4858	1.4831	1.3844	1.3630	1.3724
High During Year	1.xx	1.5192	1.5845	1.4399	1.3865	1.4267
Low During Year	1.xx	1.4420	1.4040	1.3345	1.3287	1.3275

The closing rate on December 31, 2000 for United States dollars was $ 1.xxx

GLOSSARY OF TERMS

ASP	Application Service Provider
ATM	Asynchronous Transfer Mode
Company or UAE	United America eHealth Technologies Inc. (formerly United America Enterprises Ltd.) a British Columbia company.
CPR	Computerized Patient Record
CR	Computed Radiology
CT	Computed Tomography
DICOM3	Digital Imaging Communication for Medicine - Imaging Standard 3
EDI	Electronic Data Interchange

eHealth	Electronic Healthcare
eHE or eHealthEngines	eHealthEngines Inc. a Delaware company and an indirect 61% (effective) subsidiary of United America eHealth Technologies Inc.
eReferral	Electronic Referral
FDA	U.S. Food And Drug Administration
GeN	Global eHealth Network™
HIS	Hospital Information System
HIT	Hospital Information Technology
HL7	Healthcare Messaging Standard - Health Level 7
HMO	Health Maintenance Organization
IMA	Image Manipulation Applet
IS	Information Systems
ISDN	Integrated System Digital Network
IT	Information Technology
MCR	Multimedia Clinical Record
MRI	Magnetic Resonance Imaging
PACS	Picture Archiving and Communication Systems
POTS	Plain Old Telephone System
TCP/IP	Transmission Control Protocol over Internet Protocol
Thin Client	A computer with minimum hardware and software, configured to operate within a network or on the internet to download all data and software applications for use during any work session and to upload and store the results of any work session on a network server.
TIFF	Tag-based Image File Format

ITEM 2: CORPORATE STRUCTURE

2.1 Name and Incorporation

United America eHealth Technologies Inc. (the "Company") was formed on August 17, 1983 by registration of its Memorandum and Articles under the *Company Act* (British Columbia), under the name Dellaterra Resources Inc. with authorized capital of 10,000,000 common shares. on June 25, 1992. On June 25, 1992 the name of the Company was changed to United America Enterprises Ltd., the authorized and issued share capital was consolidated on the basis of five for one and then increased to 25,000,000 common shares. On March 22, 2000 the Company's authorized share capital was increased to 50,000,000 Common Shares without par value and on May 31, 2000 the Company changed its name to "United America eHealth Technologies Inc.".

The registered and records office of the Company is located at 10th Floor 595 Howe Street, Vancouver, British Columbia, V6C 2T5 and the head and administrative office is located at One Cambridge Centre, Cambridge, Massachusetts, 02142. The Company's shares are listed for trading on the CDNX under the trading symbol "UAE".

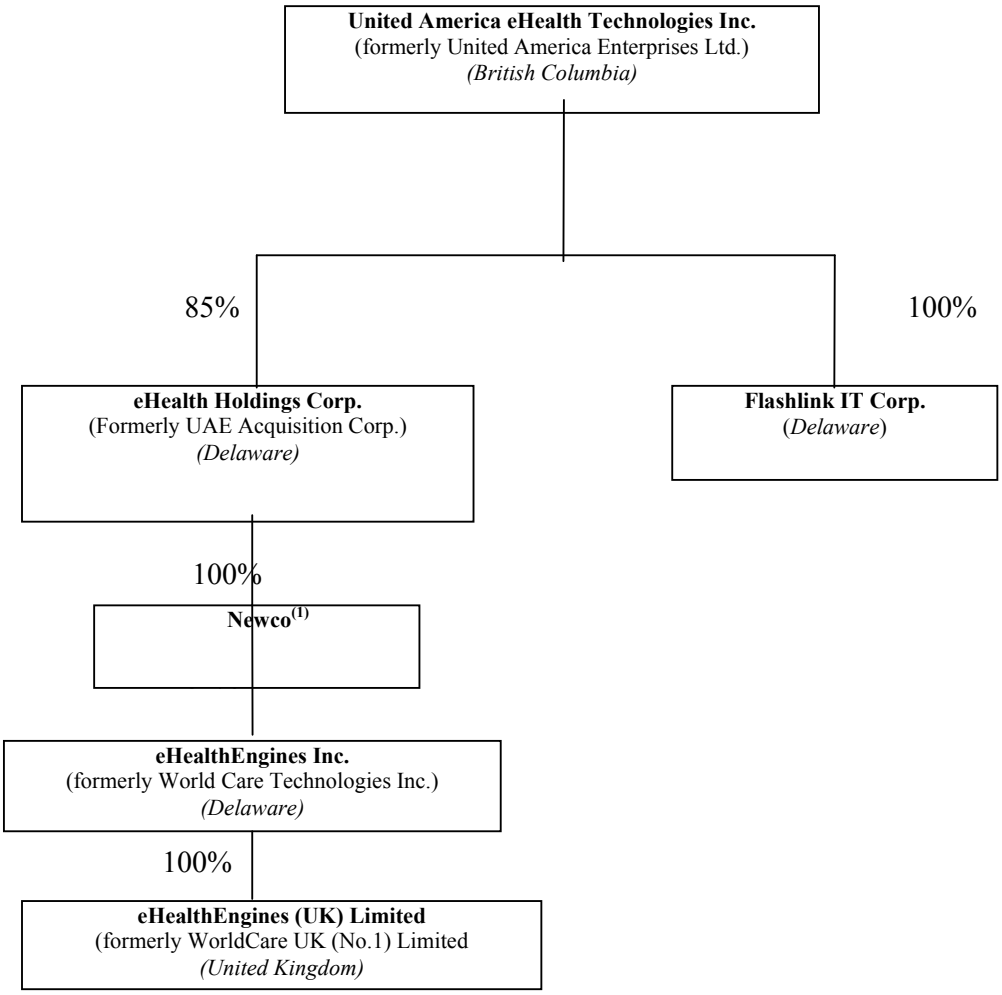
2.2 Intercorporate Relationships

The Company has two subsidiaries: eHealth Holdings Corp. ("eHealth Holdings"), 85% owned; and Flashlink IT Corp. ("Flashlink"), 100% owned. eHealth Holdings was incorporated under the laws of Delaware on March 15, 1999 and Flashlink was incorporated under the laws of Delaware, on March 15, 1999.

On February 18, 2000 eHealth Holdings acquired a 60% equity interest in WorldCare Technologies Inc. ("WorldCare"), which subsequently changed its name to "eHealthEngines Inc." ("eHE" or "eHealthEngines"), a Delaware corporation incorporated on September 29, 1998. As part of the acquisition of eHealthEngines, eHealthEngines (UK) Limited, a company incorporated under the laws of the United Kingdom, and a previous affiliate of eHealthEngines, was acquired by eHealthEngines. See Item 3.2 "Significant Acquisitions and Significant Dispositions".

Management is presently considering incorporating a company ("Newco") under the laws of Delaware which will be wholly-owned by eHealth Holdings Corp. and to which eHealth Holdings Corp. will transfer its interest in eHealthEngines. The proposal is subject to favourable opinions as to the tax consequences of such a structure.

The following diagram illustrates the intercorporate relationships among the Company and each of its subsidiaries or proposed subsidiaries.



(1) Formation of Newco is under consideration.

ITEM 3: GENERAL DEVELOPMENT OF THE BUSINESS

3.1 Three Year History

General

Prior to mid 1998, the Company operated as a junior mining exploration company. In fiscal 1999 the Company abandoned its interest in its remaining mineral properties. In winter, 1998, the Company announced its intention to participate in the rapidly developing Information Technology sector.

In mid-1999, the Company embarked on a program to establish itself as a significant participant in the "eHealth" industry and on February 18, 2000, the Company, through eHealth Holdings, acquired 60% of WorldCare Technologies Inc. (now eHealthEngines). See “Significant Acquisitions and Dispositions”.

eHealthEngines is a provider of subscription-based eHealth information services. Its' OpenMed^{TM} product suite is a comprehensive software product that provides users in the medical community with online access to patient clinical information. OpenMed^{TM} is

designed for distribution over the Internet within an application service provider (ASP) model, and it can also be operated over private intranets.

PRINCIPAL PRODUCTS AND SERVICES

eHealthEngines' products and services are arranged around two key approaches:

- Application Solutions development and sales to large accounts and partners.
- Application Services Provisioning (ASP) to customers and partners

eHealthEngines owns and controls its core application technologies, which underpin and "power" the eHealthEngines Application Services—differentiating eHealthEngines from simple application hosting companies. Ownership of the technology also provides the Company with ultimate control over its Application Solutions—differentiating it from integrators and third-party software vendors, and providing a more complete and integrated offering than would otherwise be possible.

The strength and flexibility of eHealthEngines' Application Technologies supports the Application Solutions business, providing software applications that can be "shrink-wrapped" for solution delivery to large organizations, such as hospitals or medical facilities, where policy or philosophy precludes the use of eHealthEngines' Application Services (ASP). In these cases, eHealthEngines' unique platform and database flexibility allow clean and simple integration both with existing software applications through use of DICOM and HL-7 standards and with support for all major computing platforms through JAVA-powered platform independence. The Company's flexible solutions architecture provides eHealthEngines with distinct product "engines' which are offered to partner companies in developing and delivering their services, thereby accelerating eHealthEngines' market penetration and moving to establish eHealthEngines as an industry-standard platform for healthcare information and image delivery and management.

PROPRIETARY APPLICATION TECHNOLOGIES

eHealthEngines' software Application Services and Application Solutions are delivered using an integrated suite of software modules designed to aggregate clinical information, medical images and diagnostic information to deliver an Internet-based clinical records management platform. The eHealthEngines application platform is offered under the trade name OpenMed™.

The core eHealthEngines OpenMed™ software modules are:

- **OpenMed Manager™** - eHealthEngines' proprietary Internet clinical information management server; developed in JAVA and implementing a broad range of clinical formats and standards.
- **OpenMed Viewer™** - eHealthEngines' platform-independent Internet/intranet clinical information "web-top" which provides immediate physician access to any information throughout the system through a desktop web browser. OpenMed Viewer is delivered through the OpenMed Viewer JSP (Java Server Pages), which provides flexibility in formatting and layout and allows customer or network-specific customization without change to underlying code. The OpenMed Viewer server engines provide structured access to system-wide data through an open industry standard XML (extensible Markup Language) interface, providing for simple support by OEMs and partners.

- **OpenMed Viewer™ Image Manipulation Applet (IMA)** – eHealthEngines' advanced Internet Image Manipulation Applet, developed using Sun Microsystems' JAVA applet programming model. The applet uses sophisticated image review tools within a standard browser without the need to install any software. As platform diversity increases through the marketing of mobile and set-top Internet access, platform independence offered by the applet model will become crucial to success.

- **OpenMed Capture Express™** – eHealthEngines' lightweight, web-installable records and imaging capture tool. OpenMed Capture Express provides remote Internet connected customers with the ability to digitize or capture documents and other multimedia, delivering them in industry-standard DICOM format to OpenMed Manager or the eHealthEngines ASP.

- **OpenMed Capture™** - eHealthEngines' Microsoft Windows™-based, Active-X multimedia workstation. OpenMed Capture provides eHealthEngines' customers with the ability to capture medical images from multiple vendors' non-standardized devices such as Endoscopes, Ophthalmoscopes, Dermatoscopes, and to control high-end medical digitizers such as Laser film X-ray digitizers and to scan paper-based files and documents.

- **OpenMed Radiology™ –** eHealthEngines' full diagnostic radiology review application provides radiologists a sophisticated workstation for the review, manipulation and diagnosis of radiographic medical images. It provides radiologists immediate access to any information on their system and is seamlessly integrated with OpenMed Manager and with the OpenMed Viewer browser.

- **OpenMed Links™** - eHealthEngines' industry standards compliant software interfacing engine developed in JAVA, which provides the ability to integrate OpenMed Manager with other third-party imaging, hospital, and administrative information systems utilizing industry standard protocols, e.g. DICOM3 and HL7.

OpenMed Manager

eHealthEngines OpenMed Manager™ is the core technology powering a worldwide clinical information management network. Building on a dynamic database management system, OpenMed Manager consolidates, verifies, and stores images, patient and examination/study information into patient-centric Multimedia Clinical Records (MCR). These are stored and forwarded to remote sites for review, diagnosis, consultation, or treatment planning through sophisticated OpenMed Manager communication modules.

OpenMed Manager is a modular, rules-based, intelligent, server platform for efficient and reliable delivery of high quality clinical information management services. OpenMed Manager's web-based system administration allows system managers to define the rules for flow and access across their network. In Wide Area Networks, OpenMed Manger ensures the integrity and reliability of communications through advanced error detection and correction and transmission control techniques. All OpenMed Manager transactions are tracked, allowing detailed activity reporting. OpenMed Manager, through using OpenMed Links™ can interface to third party organization systems, allowing for comprehensive clinical information management solutions in a healthcare enterprise.

Support for the international DICOM standard allows OpenMed Manager to exchange images directly with PACS and modules such as interfaces that provide for communications

with other organizations' administrative and clinical systems for the exchange of patient information, diagnostic reports, and other data.

A standard feature of OpenMed Manger is multi-layer security, which maintains an application layer directory of registered users and restricts MCR access to authorized users. At the network layer, OpenMed Manager optionally integrates encryption technology on all traffic transmitted between sites. OpenMed Manager features automatic or on-demand system backups that are managed and monitored through the browser-based administrative interface.

OpenMed Viewer

Taking advantage of World Wide Web technologies, eHealthEngines' OpenMed Viewer™ provides browser-based access to Multi-media Clinical Records (MCRs). OpenMed Viewer's MCRs present information gathered from a wide range of sources and can contain multi-modality study information, such as radiology, pathology, ultrasound, dermatology, and ophthalmology as well as written reports, scanned documents, voice memos, and video clips.

OpenMed Viewer uses standard web browsers, allowing enterprise deployment in the healthcare environment across existing suitable desktop hardware or from laptops via remote dial-up connection. Consulting and referring physicians can review cases, view results, and generate reports online. A sophisticated search system ensures that descriptive entries such as name, medical record number, specialty, examination date and many other criteria can be used to rapidly locate a patient's medical record, imaging studies, and diagnostic reports.

OpenMed Viewer is connected to eHealthEngines' OpenMed Manager™ server that controls the flow of and access to information on the network. To ensure security and confidentiality, various user access and study restrictions can be enabled. eHealthEngines' software maintains a directory of authorized users, and uses encryption software at the network layer.

OpenMed Viewer Image Manipulation Applet (IMA)

The optional Image Manipulation Applet (IMA) extends OpenMed Viewer™. IMA is a JAVA applet, which adds image enhancement and manipulation. It provides features commonly found only on dedicated imaging workstations such as window width and level control, zoom, pan and rotate functions, as well as a "magnifying glass" zoom feature for a region of special interest.

For color images, the IMA supports color balance adjustment as well as brightness and contrast control. With the IMA, OpenMed Viewer becomes an extension to PACS, permitting access to radiology images by physicians throughout an organization.

OpenMed Capture Express

OpenMed Capture™ Express provides standards-based interfacing to multi-media modalities, connecting non-radiographic imaging modalities with the DICOM world of PACS and clinical image management.

Supporting a wide range of imaging devices and image types, OpenMed Capture Express provides a DICOM compliant link to:

- Document Scanning
- Light Microscopy
- Endoscopes
- Digital Photography
- Dermatoscopes

- Ophthalmic Cameras
- X-ray Film Digitizers
- 35 mm Slide Scanners

Integrated with OpenMed Transfer Express, OpenMed Capture Express supports remote, secured capture of multimedia objects and direct Internet transmission to the eHealthEngines ASP or OpenMed Service.

OpenMed Capture

The OpenMed Capture™ application is part of the eHealthEngines' OpenMed™ suite of products. This suite enables physicians to request remote primary and secondary diagnosis of medical images, and information in multiple specialties using a single, common workstation. The captured images and information form an integral part of the patient's Multimedia Clinical Record (MCR).

OpenMed Capture includes support for a number of multi-media capture devices. Using a high-performance film digitizer (Laser or CCD), OpenMed Capture converts radiology plain film images from multiple modalities, such as X-rays, computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound images, into digital format for transmission. A standard document scanner can be attached to provide for digitization of patient histories, medical reports, imaging requests, notes, laboratory results, EKG's and charts that are transmitted along with the images. I n addition to radiology and document images, OpenMed Capture supports sound capture of voice notes, which may be used to attach requests, instructions, and queries to the MCR.

eHealthEngines' standard, intuitive graphical user interface makes capturing images, patient demographics, and study information quick and easy. The application allows for images to be flipped or rotated in one easy step, and it allows image spot magnification for quality control It also features user-selectable compression ratios. OpenMed Capture allows the grouping of multiple images or document components into a single study, representing them as thumbnails to ensure that all of the appropriate components are included in the study. Once cases are reported, eHealthEngines' Case Management interface allows quick and simple display of the report at the workstation.

OpenMed Radiology

eHealthEngines' OpenMed Radiology™ application provides radiologists with a sophisticated workstation for the manipulation, review and diagnosis of radiographic medical images. The application takes advantage of standard desktop PC architectures and includes support for high-resolution display systems, including support for up to 4 or more screens connected to a single workstation.

OpenMed Radiology provides all the features commonly required for imaging work, such as window width and level control, zoom, pan and rotate functions, as well as a "magnifying glass" zoom feature for a region of special interest. In addition, the product supports a full range of DICOM image formats and can integrate both requests and reports review into a single workstation product. OpenMed Radiology delivers collaboration tools to the radiologist including image annotation, image printing and image-sharing facilities, which enhance its capabilities when installed onto a hospital network. The OpenMed Radiology

application can operate a full PACS workstation, becoming a core part of the radiologists' daily clinical workflow.

OpenMed Links

OpenMed Links™ is the interfacing engine that provides the ability to integrate OpenMed Manager™ with other third-party imaging, hospital, and administrative information systems utilizing industry standard protocols, e.g. DICOM3 and HL7.

Support for the international DICOM standard allows OpenMed Manager to exchange images directly with PACS and modules such as interfaces that provide for communications with other organizations' administrative and clinical systems for the exchange of patient information, diagnostic reports, and other data.

OpenMed Links is fully SUN Microsystems JAVA-based, ensuring maximum portability and compatibility across the industry.

OpenMed Image Processing Bus (IPB)

Working with its application partners, eHealthEngines™ has developed the OpenMed Image Processing Bus (IPB), which provides partners, customers and OEM's with an advanced Application Programming Interface (API) to create, manipulate and work with multimedia objects.

The Image Processing Bus supports a wide range of open-standards-based image formats, from JPEG through TIFF, fax and wavelet formats, supporting a diverse range of clinical images and documentation.

Clinical Solutions

eHealthEngines' focus on delivering new and innovative healthcare solutions for clinical information and image delivery is apparent in its solution packages available as pure software or fully-integrated, turnkey solutions.

(5)eHealthEngines' web and results server solutions have been successfully deployed both in the USA and internationally and are quick to deploy and easy to manage.

Imaging Webserver in a Box

eHealthEngines Inc. has formed a strategic partnership with Data General Corporation – a Division of EMC **[is there a full name?]**, to provide it's advanced OpenMed™ application suite to Data General's healthcare customers.

Working with eHealthEngines, Data General has developed 'Imaging Web Server in a Box' as a solution for the enterprise distribution of medical images, reports, documents and medical records in a cost-effective manner throughout an enterprise and across diverse geographical sites.

The Imaging Web Server in a Box uses OpenMed Viewer™ to make clinical image and information distribution more efficient, while helping hospitals, clinics and other healthcare establishments to operate more effectively.

OpenMed Viewer™ uses standard web browsers, which allows enterprise deployment in the healthcare environment across existing desktop hardware or from laptops via remote dial-up connections. OpenMed Viewer™ will permit consulting and referring physicians to review cases, view results, and generate reports online. The search system can be used to locate a

patient's medical record, imaging studies, and diagnostic reports by identifiers such as name, Medical Record Number, specialty, examination date and many other criteria.

With Imaging Web Server in a Box, OpenMed Viewer™ is integrated with OpenMed Manager™ to provide a 'turn-key' medical Web and Intranet application server which integrates with eHealthEngines' other applications, including software modules that link with other systems such as PACS, HIS and RIS through DICOM and HL-7 interfaces.

Multimedia Clinical Intranet

The Multimedia Clinical Intranet can provide physicians enterprise-wide access to medical images and clinical information from their desktop, utilizing the web-based OpenMed Viewer™ application. OpenMed Viewer provides an interface that is delivered from a web server and requires no additional software or proprietary plug-ins to be installed. In addition to providing access to radiology diagnostic images from hospital PACS or imaging devices, the Clinical Imaging Intranet supports other clinical modalities, such as pathology, dermatology, and ophthalmology, along with associated relevant documentation, including medical history, physician notes, and imaging requests that are all presented in one common format.

OpenMed Viewer is scalable, permitting the addition of new users to the Intranet without modifications to system configuration and without visiting the new user's desktop. Images are served on demand from a high performance 'cache' achieving improved performance over most PACS web-gateway products, which must query, retrieve, and compress images before delivering them to the user. OpenMed Viewer server is supportable by an enterprise's IT department in a similar fashion to the institution's other internal or external web servers.

Utilizing OpenMed Manager™, an intelligent clinical information server, OpenMed Viewer can be extended to support the display and delivery of clinical reports and other patient and study information. The OpenMed™ family of products supports the DICOM and HL-7 standards for clinical information exchange and management allowing integration with hospital PACS or HIS systems. All clinical data is presented in a common, simple-to-understand interface using hyper links and web technology to simplify navigation. Advanced encryption and Virtual Private Network (VPN) extensions are designed to ensure the security and confidentiality of data even when the OpenMed Viewer system is connected to the Internet to allow remote access or home reporting.

eHealthEngines' Application Services Provisioning

eHealthEngines offers its technologies within a fully served Application Services Provider (ASP) framework. The eHealthEngines ASP platform allows customers to use the applications they need as they need them, and to do so with minimal capital investment in equipment and software.

eHealthEngines' applications are provided within the ASP across the Internet. Access and data are controlled by advanced "application metering" and "license encryption" technologies. The applications can be offered on a fee-for-use, subscription, or transactional basis. Connections can be secured through the creation of encrypted "tunnels" and Virtual Private Networks to support confidentiality, privacy and security. Developed around the OpenMed™ application technology, eHealthEngines' ASP services extend to data center management services, including the management and operation of customer IT and IS infrastructure.

The ASP services are intended to reduce requirements for additional equipment, as well as obsolescence and while offering the benefit of extended service, advanced technology, and more rapid, immediate updates and upgrades to new technology.

eHealthEngines' current ASP services are as follows:

- eHealthImages
- eHealthReports
- eHealthReferrals

eHealthImages

The eHealthImages™ service allows access to medical images from anywhere at anytime. Users benefit from updated web image access technology without needing to install any software, plug-ins or special programs onto their computer.

eHealthImages provides secure, platform independent image delivery direct to the physician's desktop, allowing review in the office or at home. Direct DICOM integration using the OpenMed™ application technologies permits direct connection to imaging modalities.

eHealthReports

eHealthReports™ is designed to streamline and integrate the process of creating (dictating, transcribing, signing and authorizing) distributing, and accessing reports across clinical disciplines, from any web-top, anywhere at anytime.

eHealthReports integrates with eHealthEngines' imaging and archiving services to provide an integrated records solution bringing together the textual clinical information with imaging and historical records. Online Internet based access to medical reports is intended to reduce the cost for report distribution, filing and management to clinical service providers while increasing convenience and access for physicians.

eHealthReferrals

eHealthReferrals™ is a global referral ASP which integrates with eHealthEngines' multimedia capture tools and interface products to provide for capture of complete medical records, and transmission of them other physicians and specialist for diagnosis and management planning. Online Internet access to referrals has the potential to eliminate courier fees, reduce patient travel costs and increase access to specialist expertise.

3.2 Significant Acquisitions and Significant Dispositions

In 2000, the Company, through its subsidiary eHealth Holdings Corp., agreed to acquire 60% of the issued and outstanding shares of eHealthEngines Inc. (formerly WorldCare Technologies Inc.), an international provider of telemedicine services to the health care industry. In addition, eHealth holdings Corp. acquired a further 1% of the issued and outstanding shares of eHealthEngines .

By the terms of the acquisition agreement the Company was required to make certain cash payments by specified dates. In consideration for a bridge loan made to the Company two arm's length partie received 15% of eHealth Holdings Corp., resulting in an effective dilution of the Company's interest in eHealthEngines to 52%. The effective date of the acquisition was February 18, 2000. The purchase price was US $7,000,000 (Cdn $9,676,404) of which US $2,000,000 was paid to WorldCare Limited for 10% of the shares of

eHealthEngines by the payment of US $1,000,000 in cash and US $1,000,000 (Cdn $1,496,500) by a promissory note. The promissory note is non-interest bearing and is due on the first anniversary date of closing in cash or shares of the Company. Satisfaction of the promissory note by the issuance of Company shares is subject to approval of the Canadian Venture Exchange Inc. The balance of US $5,000,000 was paid directly to eHealthEngines to subscribe for 50% of the shares of eHealthEngines. Under the WorldCare Agreement, the Company became responsible for 100% of the operating costs of eHealthEngines retroactive to May 1, 1999 and agreed to advance US $1 million as an operating loan to eHealthEngines during the 13 to 24 month period following closing. The acquisition of WorldCare closed on February 18, 2000 and received CDNX approval on March 6, 2000.

3.3 Trends

Today, 'eHealth' is having an increasing impact on a number of inter-related healthcare IT business activities. The business-to-business ("B-to-B") and connectivity and application solutions market segments have been estimated to account for annual spending of over US$400 billion. These segments include all the participants within the healthcare system, including physicians, hospitals, laboratories, pharmacies and patients, and are primarily focused on transaction-based capture, storage, management and viewing of sensitive clinical, administrative and content rich information.

The acceptance by the medical community of eHealth connectivity and application solutions is being accelerated through the use of Application Service Providers ("ASPs"). ASPs deliver to their customers the infrastructure (i.e. hardware, software and networking), staff and support services required to centrally execute and manage their clients' software applications. While they inherit much from the traditional outsourcing business model (e.g. EDS, Perot Systems), ASPs additionally provide a common implemented solution over a common technology platform. Together with having adopted the concept of risk and reward sharing with their customer base, ASPs often implement transaction- or usage/user-based charging, and in effect deliver applications 'for rent' through a utility or "fee for service" model. By providing a common service platform and making extensive use of new technologies, ASPs can surpass traditional application software vendors both in functionality and speed of implementation. The healthcare industry is particularly well positioned to benefit from the use of this model, given the industry's general lack of comprehensive IT infrastructure and strategy, continuing shortage of adequately trained in-house IT professionals and its inability or reluctance to incur large up-front capital expenditures.

Management believes that the companies which will succeed in the connectivity and applications solutions market will be those companies that (1) deliver clinical, administrative and content-rich information solutions, (2) offer Internet-based browser technology, open standards and global compatibility as part of their software applications, (3) seek partners or acquire companies specializing in legacy technologies such as EDI and HIT, (4) focus sales and marketing efforts on hospitals, payers and clinical laboratories, and (5) host their own or partner with an Application Service Provider. Nevertheless, the ASP market is still developing and as a result there is significant uncertainty as to the revenues which can be realized from it by the Company.

ITEM 3: NARRATIVE DESCRIPTION OF THE BUSINESS

General

EHealthEngines develops and markets the software and servers that power its eHealth solutions. Its' Internet-enabled clinical information and image management solutions for

electronic healthcare power the Global eHealth Network™ ("GeN") which extends to 16 countries, connecting some well-known hospitals, including four leading teaching hospitals in the United States and internationally prominent hospitals such as the Pantai Hospital in Malaysia, and King Faisal Hospital in Saudi Arabia.

Markets and Competition

Based on its research, management estimates that the connectivity and application solutions market offers in excess of US$400 Billion annual revenue opportunities, of which US$70 billion is solely radiology services-related. As the Company examines its market it is increasingly clear that the first generation of eHealth is beginning to take hold. Companies like Healtheon/WebMD, eMedSoft.com, HealthVision, CareInsight, TriZetto and others have entered the market. Many of these first generation participants have established partner and/or equity relationships with large, better established HIT vendors. While it is difficult to estimate the actual number of physicians signed up, management's research indicates that up to 2/3 of the physicians or physician groups with established HIT relationships have also established a relationship with a connectivity and application solutions provider. However, many competitor businesses focus on the delivery of either content (generalized reference information) or administrative management, the latter of which focuses on processing claims, insurance or billing events.

It is management's view that the key users (estimated to be in excess of 750,000 in the U.S. alone) who must be reached to make a real difference to the level of acceptance and adoption of eHealth technologies are the physicians, nurses and other care-givers who interact directly with patients and are involved in the delivery of care.

The Company faces competition from the incumbents in both information management and imaging. It is likely to encounter additional competition from smaller Internet and network-driven start-up companies seeking to lever technological innovation and the step-change in both process and perception introduced by the Internet. **e**HealthEngines' plan has been and will continue to be, to distinguish itself from competitors by delivering solutions that innovate across the gap between imaging and information in the healthcare IT sector by including both capabilities in its products. eHealthEngines' focus is on the clinical components of healthcare information, as opposed to the administrative and claims oriented transactions. eHealthEngines also differs from most competitors in that it enables the communication of clinical information and images, specifically between clinical providers and referring physicians with distinct and separate practices areas, whereas the majority of incumbent information management vendors focus on delivering solutions within a single enterprise.

Management of the Company believes that it is well positioned to respond to competitive threats and technology delivery issues with its OpenMed™ application suite.

Differentiating features of the OpenMed™ application suite include:

- 100% Pure Web access to Electronic Clinical Records,
- 100% JAVA server application in the ASP,
- ASP and 'Shrink Wrapped' solutions models,
- Deployed versions on Solaris and NT,
- Excellent 'desktop' delivery to browsers (NC/Thin Client Model); proven on PC, MAC and other client platforms,
- Support for the full range of clinical multimedia (in the Web); X-rays, Video, Sound, Dermatological, Endoscopic,

- JAVA Applet based manipulation of radiological images in the browser providing all the commonly used features of a PACS viewer application,
- JAVA Applet based document imaging solutions to include full document display and web based document printing capability,
- Object storage and management services, and
- HL7 and DICOM implementations in JAVA (scalable to multiple instances on the same server; with different processing rules).

Principal Markets

eHealthEngines currently supports and operates a multinational network, its Global eHealth Network (GeN), which provides eReferral record exchange services between participating institutions. This network spans sixteen countries and connects hospitals including:

- The WorldCare Consortium:
  - Partners HealthCare System - (includes Massachusetts General Hospital, Brigham and Women's Hospital, Dana-Ferber Cancer Institute, Spaulding Rehabilitation Hospital and McLean Psychiatric Hospital, teaching hospitals of Harvard Medical School.)
  - The Cleveland Clinic Foundation
  - Duke University Hospital/Duke University Health System
  - Johns Hopkins Medicine
- Pantai Medical Center, Malaysia

eHealthEngines has also established regional networks in the Kingdom of Saudi Arabia and in Malaysia:

- King Faisal Specialist Hospital in Ryadh,Saudi Arabia is connected with six hospitals across the Kingdom to provide its specialist services
- Malaysian Ministry of Health's Multi-Media Super Corridor project, currently connecting more than 42 sites across Malaysia

eHealthEngines has also installed clinical multimedia intranets and imaging web-servers in several European hospitals, including:

- TAP/Air Portugal (UCS) Clinics, Portugal
- St. Joseph Hospital, Belgium
- Kappa Servexim SRL, Romania
- Central Middlesex Hospital, United Kingdom

Other projects are currently under development in North American, Western European and Asia/Pacific regions.

Revenue Model

eHealthEngines has **recently** launched a family of managed ASP services with a view to generating ongoing revenues on both 'fee for usage' and subscription bases. This ASP business model will permit healthcare providers to use new clinical information systems without major capital expenditures and the risks associated with such expenditures. If well received by the market the ASP services are expected to provide the Company with more

consistent, increasing revenue flows, assuming an initial three to four year customer commitment.

The Company also plans to continue to expand and support its more traditional 'second opinion' referral business, which consists largely of software license purchases, and third-party (Reseller) revenues.

Marketing Plans and Strategies

The business success of eHealthEngines will depend on its ability to rapidly expand its prospective customers and its ability to convert interested parties into paying customers. Given the presence in the market of both large incumbent players and new, well-funded entrants (albeit largely not direct competitors for eHealthEngines' products/services, but competitors for prospective customers' available funds), the Company must expand its sales and marketing efforts to develop referrals from Imaging Centers using the Company's technologies and also to adequately serve the opportunities generated by strategic distribution partners such as Data General - A Division of EMC and Chrome Global, a distributor for eHealthEngines in the Southeast Asia market. To accomplish these goals, the Company intends to recruit appropriately experienced sales people and to expand its marketing activities at trade shows and industry events and to improve awareness of the Company, its capabilities and its products directly to decision makers and key influencers in the marketplace.

The Company also intends to continue to develop new products, services and product features as required to maintain or enhance its position in the marketplace. The Company will continue to seek industry and financial partners to expand the technical and financial resources available to it and to improve access to market for the Company's products and services.

The Company intends to develop further relationships with strategic partners in distribution and technology, as well as with infrastructure service providers, with a view to ensuring that it can accommodate demand for its products and services.

Partnerships

eHealthEngines has developed strong marketing relationships with several participants in the information technology sector. Key partners include:

Sun Microsystems

eHealthEngines uses Sun's enterprise network computing technology and JAVA to design, develop and deploy its technology products and services. eHealthEngines research and operations teams work closely with Sun to ensure best use of core Internet technologies, such as JAVA, for delivering scalable, feature-rich clinical eHealth applications.

Data General, a Division of EMC

For the past 20 years, Data General has been a leader in providing high-technology enterprise solutions to the healthcare industry with solutions currently in use at more than 3700 hospitals worldwide. The company's healthcare solutions include: Clinical imaging solutions, Document imaging for medical records and business office departments, Internet/intranet solutions customized for the healthcare environment, Wireless Point-of-Care solutions, IT infrastructure solutions for the healthcare enterprise, Decision support and business intelligence. Acquired by EMC in 2000, Data General is a significant reseller of

eHealthEngines' OpenMed™ software family worldwide and an eHealthEngines strategic platform partner.

MarkCare Medical Systems

MarkCare Medical Systems is a partner of eHealthEngines for the delivery of the eHealthEngines' web-top PACS Results Server, and has partnered with eHealthEngines as both a reseller and OEM of eHealthEngines' products. MarkCare Medical Systems has supplied hospital-wide PACS across Europe, the Pacific Rim and the USA. MarkCare has substantial expertise in PACS design.

Pegasus Imaging Corporation

Pegasus partnered with eHealthEngines and certain medical institutions to develop an FDA-510(k) cleared, low level comprehensive compression solution. The compression technologies have been clinically tested and adopted by certain medical industry participants for CT, MRI, X-RAY, Ultrasound, Angiography and PET modalities.

eHealthEngines was the first software developer to achieve FDA clearance for wavelet image compression technology in 1995, and as such was an obvious partner for Pegasus when it decided to enter the wavelet compression marketplace during 1999. Pegasus provides eHealthEngines with access to considerable mathematical and image processing software resources at less cost than would otherwise be the case.

WorldCare Inc

WorldCare, a major client of eHealthEngines, is a pioneer and leader in global e-health and e-lifecare, facilitating international access to high quality U.S. healthcare through the delivery of specialized and personalized electronic second medical opinions and the provision of U.S. treatment plans for serious illness. In partnership with certain medical centers in North America, and powered by eHealthEngines technologies, WorldCare utilizes the Internet to transmit medical records and provide referring physicians and their patients with second opinions and insured treatment for specified, serious illnesses.

Chrome Global

Chrome Global is a provider of online business solutions and services, with an interest in a range of developing vertical markets. Chrome Global's customer base includes government departments, corporations and private companies at a local, national and international level. Chrome Global's mission is to cultivate and enhance the company's reputation as the partner of choice for organisations requiring comprehensive systems and services that are integral to their business success.

Technical Strategy

eHealthEngines' healthcare information product strategy is based on the following key principles:

- *FDA and clinical validation* of telemedicine technologies and the services offered by eHealthEngines to affirm clinical effectiveness and validity in contrast to traditional healthcare delivery methods. eHealthEngines obtained FDA clearance (K943994) for its RSTAR Image Management System on May 12, 1995. An additional, broader

based FDA clearance (K000866) was obtained for the latest version of the OpenMed™ software family on May 26, 2000.

- *Technical standards compliance* (DICOM, HL7, TCP/IP) to ensure the viability of customers' investment in current technologies and its ability to interface to proprietary, legacy, and future technology components and systems. eHealthEngines products wherever possible use the DICOM standard for medical object communication, storage and management.

- *Platform independence* of clinical information solutions to offer customers the flexibility of using software and hardware technology components from alternate vendors. This is accomplished through a JAVA-based, Internet-compatible software architecture.

- *Managed service approach* expresses eHealthEngines' philosophy that healthcare information technology must be based on a multidisciplinary approach encompassing technology and medicine and that the success of its adoption hinges on deploying it to benefit both clinical and technical staff. eHealthEngines' system offers a management service as well as case transfer facility and allows eHealthEngines to add value through service and longer-term customer relationships rather than simply by technology vending.

- *Distributed networking design*. eHealthEngines' distributed network design provides for the location or co-location of eReferral services across a network. Specifically this might be the sharing of compression and communications services within an Intranet or the delivery of an integrated single workstation comprising a wide selection of eHealthEngines' products installed on one machine. This approach provides for scalability and resilience and allows services to be operated on a local, regional, national and international level with a common suite of products providing a common pervasive platform.

- *Documentation* is both expected in the healthcare industry and required by the regulatory authorities for medical devices. eHealthEngines' product range has a fully developed set of user documentation, which is maintained by a full-time technical author who is a full-time member of the product development group in Cambridge, MA.

Trademarks, Copyright and Proprietary Protection

Trademarks

eHealthEngines' applications and applications services are currently marketed and sold under the following service marks and trademarks:

- OpenMed™
- OpenMed Manager™
- OpenMed Manager Lite™
- OpenMed Links™
- OpenMed Capture™
- OpenMed Radiology™
- OpenMed Viewer™

- Global eHealth Network™
- eHealthImages™
- eHealthReports™
- eHealthReferral™
- eReferral

The eHealthEngines Logo is used under license: --newly created by eHealth Engines and trademarked

eHealthEngines is **currently processing** the registration of **a number** of the above trademarks in the United States. The Company intends to seek registration of such trademarks in Canada and the European Union.

Copyright

All eHealthEngines application software carries the assertion "Copyright © eHealthEngines Inc. 1999-2000", and use is subject to license under eHealthEngines' standard software license agreement. eHealthEngines is the **sole party with access to** the eHealthEngines source code. Customers are provided only object-code versions of its software.

Other Proprietary Protection

The architecture of the eHE Software requires the activation of each and every node of the network. This activation allows the nodes to properly communicate with their peers and protects them against unauthorized access by illegal or improperly activated machines. Activation is caused by an encrypted record that contains various technical and time sensitive information related to the configuration and identity of the node. The eHE software does not operate properly without a valid configuration record on each machine.

This aspect of the architecture is believed by management to provide considerable protection to the software product and to reduce piracy risks inherent in the software business. The activation record is in essence equivalent to a sophisticated encrypted license key that maintains control over duplication and use of duplicated copies of the software.

The Company **severely restricts access** to its source code and maintains its code in secure environments, in keeping with good industry practice. The Company's employees are also bound by non- disclosure agreements.

Employees

The Company's international sales staff are located in London to provide easier access to European, Middle Eastern and Asian markets. Including the management team and certain outsourced personnel, eHealthEngines has a staff of approximately 30.

ITEM 5: SELECTED CONSOLIDATED FINANCIAL INFORMATION

Annual Information

The following tables provide a summary of certain selected consolidated financial information for fiscal years May 31, 2000, 1999 and 1998. This information has been derived from and should be read in connection with the detailed information contained in the audited financial statements of the Company for those periods.

Condensed Consolidated Income (Loss) Statements for the Five Years Ended May 31, 2000

	2000	**1999**	**1998**
Revenue	997,113	334,012	-
Cost of Sales	569,474	294,396	-
Gross Margin	427,639	39,616	-
Operating Expenses	4,374,127	1,483,749	164,672
Other Income (Expenses) (1)	(2,803,917)	(419,272)	-
Recovery of Future Income Taxes	1,144,670	-	-
Non-Controlling Interest in Losses	847,589	-	-
Net Loss	(4,758,146)	(1,863,405)	(164,672)
Net Loss per Share (2)	(0.48)	(.24)	(.05)

(1) Other Income (Loss) in 2000 includes amortization of 1,161,424; loss on dilution of eHealth Holdings of 1,676,000 and other of 33,507 and in 1999 includes amortization of 21,630 and a Write-off of mineral properties of 397,642.

(2) Net Loss per Share - Where shown, the number of common shares outstanding during the year for the purposes of the loss per share calculation is calculated on the weighted monthly average of outstanding shares. Where omitted, the loss per share calculation was not calculated, as the information was not considered relevant at the time the annual financial information was prepared.

Consolidated Balance Sheet Information for the Five Years Ended May 31, 2000

	2000	**1999**	**1998**
Cash	3,176,449	555,138	701
Investment in Mining Properties	-	-	235,276
Total Assets	15,666,813	1,165,787	401,562
Long-Term Liabilities	-	-	-
Share Capital	4,013,595	2,325,770	1,206,770
Shareholders' Equity (Deficit)	7,169,148	331,771	(123,824)

There is no long-term debt.

Quarterly Information

Eight Quarters Ended May 31, 2000 Condensed Consolidated Income (Loss) Statements Unaudited

	May 31, 2000	**February 29, 2000**	**November 30, 1999**	**August 31, 1999**
Revenue	679,024	(2,254)	47,585	272,758
Cost of Sales	410,693	(794)	27,084	132,491
Gross Margin	268,331	(1,460)	20,501	140,267
Operating Expenses	2,357,530	565,642	626,477	824,478
Other Income (Expenses)	(2,783,045)	-	-	(20,872)
Recovery of Future Income Taxes	1,144,670	-	-	-
Non-Controlling Interest in Losses	847,589	-	-	-
Net Loss	(2,900,857)	(567,102)	(585,104)	(705,083)
Net Loss per Share	(.27)	(.06)	(.07)	(.08)

	May 31, 1999	**February 29, 1999**	**November 30, 1998**	**August 31, 1998**
Revenue	334,012	-	-	-
Cost of Sales	294,396	-	-	-
Gross Margin	39,616	-	-	-
Operating Expenses	953,078	349,219	143,847	37,605
Other Income (Expenses)	(419,272)	-	-	-
Recovery of Future Income Taxes	-	-	-	-
Non-Controlling Interest in Losses	-	-	-	-
Net Loss	(1,332,734)	(349,219)	(143,847)	(37,605)
Net Loss per Share	(.17)	(.05)	(.015)	(.005)

Dividend Policy

The Company has not paid dividends on its common shares since 1992. The Company has no present intention of paying dividends on its common shares as it anticipates that all available funds will be invested to finance the growth of its business.

ITEM 6: MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended May 31, 2000 compared to Year Ended May 31, 1999

In the financial year ended May 31, 2000, the Company completed its acquisitions of Flashlink and a majority interest in eHealthEngines. In connection with the acquisitions, the

Company arranged for US$750,000 in bridge financing and raised CAN$11,512,500 in additional equity, which amounts were used principally to pay US$6,000,000 for the acquisition of eHealthEngines and related costs. US$5,000,000 was invested in eHealthEngines to provide funds for operations and for eHealthEngines' ongoing research and development efforts. The acquisition of eHealthEngines was accounted for as a purchase of shares. Subsequent to the end of its last fiscal year the Company determined to change its year end to December 31, so that the company's financial year will be coincidental with the end of the financial year of the Company's principal operating subsidiary, eHealth Engines.

In the past year, the Company evaluated several merger and acquisition opportunities, which it subsequently determined were not in the Company's interest to consummate. The Company continues to seek suitable merger and acquisition opportunities.

The Company previously determined to integrate the functionality of its Flashlink business into the web-enabled OpenMed™ products offered by eHealthEngines and is not actively conducting Flashlink business activities. Subsequent to May 31, 2000, the Company reached an agreement with the vendor of the Flashlink business, American Computer Hardware Corporation ("ACHC"), to release to ACHC a total of 200,000 of 300,000 escrowed Company shares in full satisfaction of all remaining obligations under the Flashlink acquisition agreements. 100,000 shares were returned to the UAE treasury as part of this agreement. Subsequent to May 31, 2000, the Company also reached agreement with certain previous Flashlink employees to license them to use Flashlink technology for manufacture and sale of the Flashlink printer controller.

In the year ended May 31, 2000, the Company's operating expenses rose to $4,374,127. The majority of these expenses were incurred to pay professional, consulting, travel, promotion and other costs associated with the Company's acquisition (including financing), and operation of eHealthEngines. To date, the Company's business has not generated sufficient cash flow to fund operations and the Company expects that it will continue to need additional external capital to fund operations and growth during the next year.

In the third quarter, the Company announced the change of its name to "United America eHealth Technologies Inc." and at the same time changed the names of its affiliates to present a unified family of companies. WorldCare Technologies Inc. changed its name to "eHealthEngines Inc." and UAE Acquisition Corp changed its name to "eHealth Holdings Corp."

Year Ended May 31, 1999 compared to Year Ended May 31, 1998

During the financial year ended May 31, 1999, the activities of the Company were concentrated on seeking acquisition opportunities within the healthcare information technology sector. In March 1999, the Company announced that it had entered into an agreement for the acquisition of FlashlinkIT, a division of ACHC. The consolidated financial statements of the Company for the financial year ended May 31, 1999 include the purchase of certain assets; the assumption of certain liabilities and the operations of the Flashlink Division of ACHC. The acquisition was accounted for by the purchase method and the required expenditure of US$140,000 on the operation of the Flashlink business during the twelve-month period following the closing of the agreement, which amount is included as a cost of the purchase and is reported as "acquisition costs" on the balance sheet.

In June 1998, the Company announced that it was abandoning its interests in its mineral properties, in view of the weak markets in minerals.

Liquidity and Capital Resources

The Company's business is difficult to evaluate because it has a limited operating history as a participant in the "eHealth" industry. In January 1999, the Company began operating as a healthcare information technology company focused on building an enterprise-wide suite of applications for use in the healthcare industry. Revenues to date have not been material. Due to the Company's limited operating history as a participant in the "eHealth" industry and the emerging nature of the Company's markets, the Company's historical financial information is of limited value in projecting the Company's future business and prospects.

The Company expects to incur losses and experience negative cash flow for at least the next year and perhaps longer. To date the Company's business has not generated sufficient cash flow to fund operations without resorting to external sources of capital. Developing the Company's business and building its network requires capital and other expenditures. The Company will need additional capital to fund its growth, and it may not be able to obtain such capital on terms acceptable to the Company. However, to date, the Company has been successful in obtaining the capital required through equity financings and expects to be able to continue to access the capital required through the issuance of its shares in future, subject to market conditions.

As the Company's principal business activities have to date been US dollar based, the Company has not as of yet needed to introduce a foreign currency strategy. Should significant revenues begin to arise from offshore locations, such strategy will be considered. Additionally, the Company's operations have to date not experienced any significant inflationary costs and inflation has thus not significantly impacted results.

The Company presently has limited capital and must rely on raising capital principally from equity or venture capital financing to further its operations.

Results of Operations

ITEM 6: MARKET FOR SECURITIES

The Common Shares of the Company have traded on the Canadian Venture Exchange (CDNX) under the symbol UAE since November 30, 1999. From June 25, 1992 through to November 29, 1999 the Common Shares were quoted on the Vancouver Stock Exchange. The Vancouver Stock Exchange was merged into CDNX on November 29,1999.

ITEM 7: DIRECTORS AND OFFICERS

The following table sets forth the name, municipality of residence, office and principal occupation for the preceding five years and security holding of each of the directors and the executive officers of the Company and its subsidiaries.

Name and Municipality of Residence	Current Position	No. and % of Voting Securities[1]	Principal Occupation during preceding 5 years
Franco Boulle[2] Ensenada, Baja California	President, CEO, Director of UAE and CEO and Director of eHE	1,141,667 shares/ 10.91%	Businessman, President and CEO of the Company from 11/96 to present; CEO of Archangel Diamond Corporation from 5/96 to 7/97.
Alex Budzinsky[3] Carlsbad, California	Executive Vice President, Director of UAE and Director of eHE	380,000 shares / 2.86%	Executive Vice President of the Company from 7/98 to present; President (9/96-11/97), CEO (7/97-11/97), Chairman (7/97-7/98) of Archangel Diamond Corporation; SVP, HEARD Energy Corporation, an independent power development company, from 3/93 to 6/96.
Mark Gillett[4] London, England, United Kingdom	Executive Vice President and Chief Technology Officer of UAE and President and Director of eHE	Nil	eHealthEngines from 9/97 to present, most recently as President; Director of Technology and Network Development, University of London and Joint Information Systems Committee, London, UK, from 6/96-12/97; Chief Network Officer, St. Helier NHS Trust hospital group, London, UK, 9/94-6/96.
Bernard H.J. Maury[5] Mamaroneck, New York	COO of UAE and also of eHE and Director of eHE	50,000 shares / 0.478%	Chief Operating Officer of the Company from 11/98 to present; Software Consultant 02/98 to 11/98; from 05/91 to 01/98, Vice President of various divisions at CGI Systems, an IBM company.
J. Richard Iler[6] Westford, Massachusetts	Director of Business Development of UAE and also of eHE	30,000 shares / 0.286%	Director of Business Development of the Company and of eHE from 4/00 to present and CFO of the Company from 11/98 to 4/00; CFO, Sr. Vice President, Integration Associates, a software integration and consulting firm from 06/98 to 11/98; CFO Atlas Software Technologies Inc., a software consulting and staffing company from 09/96 to 06/98; Business Development manager SS&C Inc., a software development and consulting company form 11/94 to 01/ 96
Jeffrey R. Macklin[7] Somerset, England, United Kingdom	Chief Financial Officer and Managing Director, International Business	100,000 shares / 0.955%	Chief Financial Officer from 9/00 to present, Managing Director, International Business of the Company from 01/99 to present; Strategy consultant with Farmer & Co. from 04/97 to 11/98; General Manager, Northern Europe for Information Dimensions (UK) Ltd. from 10/94 to 03/97
Brian C. Irwin[8] West Vancouver, British Columbia	Secretary, Director of UAE	55,000 shares/ 0.525%	Partner, DuMoulin Black, Barristers and Solicitors since 1983

Name and Municipality of Residence	Current Position	No. and % of Voting Securities[1]	Principal Occupation during preceding 5 years
Mike Muzylowski[9] Vancouver, British Columbia	Director of UAE	67,500/ 0.645%	President and CEO Callinan Mines Ltd. 1995 to present

(1) Beneficially owned, directly or indirectly, or over which control or direction is exercised.
(2) Mr. Boulle also owns 236,667 Special Warrants exercisable for no additional consideration into one share and one-half of one warrant. He has been a director of the Company since June 1996 and director of eHE.
(3) Director of the Company since January 28, 2000
(4) Director of eHE.
(5) Director of the Company.
(6) Director of the Company.
(7) Director of the Company.
(8) Director of the Company since November, 1996
(9) Mr. Muzylowski also owns 20,000 Special Warrants exercisable for no additional consideration into one share and one-half of one warrant. He has been a director of the Company since November, 1996.

The term of office of each director is from the date of the meeting at which he or she was elected until the next annual meeting, or until his or her successor is elected or appointed.

Committees

The Company is required by its governing corporate legislation to have an audit committee. The audit committee consists of Messrs. Muzylowski, Irwin and Budzinsky**.** The Company does not have any other formal committees.

8.2 Corporate Cease Trade Orders or Bankruptcies

No director, officer, promoter or other member of management of the Company, or, to the knowledge of the company , any shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company is, or within the ten years prior to the date hereof has been, a director, officer, promoter or other member of management of any other issuer that, while that person was acting in the capacity of a director, officer, promoter or other member of management of that issuer, was the subject of a cease trade order or similar order or an order that denied the issuer access to any statutory exemptions for a period of more than thirty consecutive days was declared bankrupt or made a voluntary assignment in bankruptcy, made a proposal under any legislation relating to bankruptcy or insolvency or has been subject to or appointed to hold the assets of that director, officer or promoter.

8.3 Penalties Or Sanctions

No director, officer, promoter or other member of management of the Company has, during the ten years prior to the date hereof, been subject to any penalties or sanctions imposed by a court or securities regulatory authority relating to trading in securities, promotion, formation or management of a publicly traded company, or involving fraud or theft.

8.4 Individual Bankruptcies

No director, officer, promoter or other member of management of the Company has, during the ten years prior to the date hereof, been declared bankrupt or made a voluntary assignment into bankruptcy, made a proposal under any legislation relating to bankruptcy or insolvency or has been subject to or instituted any proceedings, arrangement, or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold his or her assets.

8.5 Conflicts Of Interest

The directors of the Company are required by law to act honestly and in good faith with a view to the best interest of the Company and to disclose any interests which they may have in any project or opportunity of the Company. If a conflict of interest arises at a meeting of the board of directors, any director in a conflict will disclose his interest and abstain from voting on such matter. In determining whether or not the Company will participate in any project or opportunity, that directors will primarily consider the degree of risk to which the Company may be exposed and its financial position at that time.

To the best of the Company's knowledge, and other than disclosed herein, there are no known existing or potential conflicts of interest among the Company, its promoters, directors, officers or other members of management of the Company as a result of their outside business interests except that certain of the directors, officers, promoters and other members of management serve as directors, officers, promoters and members of management of other public companies, and therefore it is possible that a conflict may arise between their duties as a director, officer, promoter or member of management of such other companies.

The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the Company Act of British Columbia and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

ITEM 8: ADDITIONAL INFORMATION

Upon request to the Corporate Secretary of the Company, the Company will provide to any person or company:

(a) one copy of the AIF of the Company, together with one copy of any document or the pertinent pages of any documents incorporated by reference in the AIF;

(b) one copy of the comparative financial statements of the Company for its most recently completed financial year for which financial statements have been filed together with the accompanying report of the auditor and one copy of the most recent interim financial statements of the Company that have been filed, if any, for any period after the end of its most recently completed financial year; and

(c) one copy of the information circular of the Company in respect of its most recent annual meeting of shareholders that involved the election of directors or one copy of any annual filing prepared instead of that information circular, as appropriate.

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of United America eHealth Technologies' securities, options to purchase securities and interest of insiders in material transactions, where applicable, is contained in the 2000 Annual Report of the Company and in the Management Information Circular respecting the Annual Meeting of shareholders held on November 30, 2000. Additional

financial information is provided in the Company's Consolidated Audited Financial Statements for the year ended May 31, 2000. Copies of the Annual Report, the Management Information Circular and the Consolidated Audited Financial Statements may be obtained from SEDAR, or from the Company upon request to the Secretary of the Company, 10th floor, 595 Howe Street, Vancouver, British Columbia, V6C 2T5.

CASE USE IN UNDERGRADUATE FINANCE CURRICULA

Robert Stretcher, Sam Houston State University

INTRODUCTION

Informational studies concerning the use of cases in undergraduate business programs have not been numerous in past literature. This is especially true for more 'analytical' business areas such as accounting, finance, statistics, and management science. Professors often express the opinion that cases are not effectively used in these areas for undergraduates. Students at more advanced stages (such as graduate students) are thought to derive more benefit from cases, since they have previously acquired the basic skills of analysis. Others express the belief that case use can be equally effective at the undergraduate level, reinforcing the learning of analytical skills with the retention of those skills through experiential learning.

This paper presents an analysis of a survey conducted in July-November 2001 concerning the use of cases in undergraduate finance curricula. The survey was designed to determine the extent of case use, characterize the motivations behind case use or non-use, summarize the nature, sources, and application of the cases among the respondents who use cases, and to collect subjective responses from finance professors concerning their teaching styles and methodologies that either promote or constrain case use.

Based on 236 returns, we are able to draw strong conclusions about the overall responses. We also derive substantive conclusions concerning differences in responses from a variety of sub-groupings, mainly between case users and non - case users.

LITERATURE REVIEW

In the early days of university-based education, a few professors would typically apply the principles of economic theory to business problems, particularly in finance. The first college specifically for business was the Wharton School of Finance and Commerce (1881) at the University of Pennsylvania. By 1900 several other universities had entered the field. The Harvard School of Business was established in 1908. By the 1950's the case method was appropriated from the Harvard Law School by the Business School as a tool by which students could study and apply techniques to situations actually confronted in the real world. The approach took an executive management perspective, stressing analysis over the rote learning of techniques. Soon other business schools were emulating the success of the Harvard approach. (Stretcher & Makamson, 2001).

Case studies are useful in the classroom because they provide a conduit between theory and practice (Saunders, 1997). The inclusion of cases and simulations in our curricula reflects a

desire to shift from emphasis on teaching to emphasis on learning. Some feel that the change may even be a shift in the traditional paradigm in favor of a more applied and memorable learning event. Under this paradigm, learning is student-centered and essentially experiential, replacing the old content-centered model (Barr & Tagg, 1995). The goal in using cases is not to develop a set of correct answers, but to involve students in the active process of recognizing and solving business problems. The case method relies on participation rather than passive learning (Argenti, 2003). Case studies help students think like people in a professional role (Marsick, 1990).

Rogers & Rymer (1998) point out that case studies "present communication as social action." Cases show students the social aspects of communication, ways to get things done. In addition, they encourage students to examine and develop their own thinking processes, processes which students can then use to solve real problems outside the academy (McEachern, 1999).

Stretcher (2000) observes that the typical undergraduate may learn concepts and facts, but has never been lead through the process of trial, failure, perseverance, and eventual success. However, the dynamics of experiential events provide a compelling reason for learning. The experiences tend to be retained and revisited when similar tasks are confronted again. In short, students "learn well by experience – the 'hard way'." (p. 3).

Studies concerning the use of cases in undergraduate business programs have not been apparent in past literature. This is especially true for more 'analytical' business areas such as accounting, finance, statistics, and management science. Professors often express the opinion that cases are not effectively used in these areas for undergraduates. Students at more advanced stages (such as graduate students) are thought to derive more benefit from cases, since they have previously acquired the basic skills of analysis. Others express the belief that case use can be equally effective at the undergraduate level, reinforcing the learning of analytical skills with the retention of those skills through experiential learning.

This study is designed to provide indications about the extent of case use in undergraduate finance courses, and to provide a basis for understanding the justification and character for case use (or non-use).

SURVEY CHARACTERISTICS

The four-page survey was mailed to U.S. finance professors, with addresses derived from *Prentice-Hall's Guide to Finance Faculty 2000* (Hasselback, 2001). Addresses that were incomplete or had obvious errors were omitted. In an attempt to promote the return of surveys for addressees no longer employed by the listed institution, the address labels indicated the name of the professor with the second line reading "Or Current Finance Faculty." 3,800 surveys were mailed with generic cover letters. With each survey a postage-paid envelope was provided for the return of the survey. Depending on the number of questions answered, and the extent of the subjective commentary by the respondent, the survey took from 2-7 minutes to complete.

Eight days after the mailout, replies began to accumulate. The deadline for returning the survey was November 15, 2001. No responses received after that date were counted in the final tally.

SURVEY RESULTS

Case Use Per Course

The first section of the survey asked professors to indicate which undergraduate finance courses they taught. Eleven identified courses were listed, and space was provided for other course titles, filled in by the respondent. If responses in this space indicated similar descriptions to listed courses, the tally included those responses in the listed course. The courses were numbered according to the table in Exhibit 1. Column one is a tally of the number of professors teaching each course. Column 2 indicates the percentage of respondents teaching each course.

Professors were then asked to indicate whether their courses involved case use. Number of responses and corresponding percentages are presented per course in Exhibit 1. Among all respondents, 159 out of 236 (67.37%) are case users in at least one undergraduate course.

Exhibit 1.

COURSE	Taught the Course	% respondents	Used Cases in Course	% respondents	Percent Case Users per Course
1.Financial Management (first course)	161	0.6822	77	0.3263	0.4783
2.Intermediate Financial Management (majors)	88	0.3729	35	0.1483	0.3977
3.Investments	78	0.3305	56	0.2373	0.7179
4.Portfolio Theory/Management	28	0.1186	9	0.0381	0.3214
5.Financial Analysis	27	0.1144	8	0.0339	0.2963
6.Commercial Banking	26	0.1102	16	0.0678	0.6154
7.Financial Markets/Institutions	47	0.1992	12	0.0508	0.2553
8.Real Estate	18	0.0763	11	0.0466	0.6111
9.Insurance/Risk Management	18	0.0763	9	0.0381	0.5000
10.Investment Banking	3	0.0127	3	0.0212	1.0000
11.Capstone Course	57	0.2415	3	0.0127	0.0526

From the response, it appears that there is substantial use of cases in undergraduate finance curricula. On a percentage basis, the most popular courses for case use, according to our results, are (in order): Investment Banking, Investments, Commercial Banking, Real Estate, and Insurance/Risk Management. Only three respondents, however, taught an investment banking course, so the 100% case use response may not be considered a very strong result. Several respondents using 'cases' in the investments course wrote in "simulations" beside their response, indicating that finance professors may actually consider investments games to be cases.

Curiously, the least favorable course for case use was the Capstone Course, with only 5% of professors teaching the course using cases. Financial Markets/Institutions, Portfolio Theory/Management, and Financial Analysis also were not favorable for case use.

Case Sources

Case Users (those using cases in at least one course) were asked to identify their sources of cases. The most traditional sources were listed, as well as an 'other' category where the

respondent could write in a source. Frequently occurring write-in sources were included in the final tally of results.

Sources were identified by frequency of response. Sources used, from most frequent to least frequent, are: Cases from texts... 75 (47.17%), Cases written by the Respondent or their Colleagues... 74 (46.54%), Harvard cases...60 (37.73%), Other Sources... 23 (14.47%), Ivey cases... 12 (7.55%), Cases from journals... 5 (3.14%), and Cases from academic conferences and proceedings... 4 (6.29%).

For each source, case-users were asked to estimate the number of cases they use per year. From our results, cases from texts topped the list at 647 cases, followed by cases written by the respondent or colleagues (323), Harvard cases (305), other sources (174), Ivey cases (37), Journals (14), and cases from academic conferences/proceedings (3). Interestingly, the only Journal sources listed with more than one response were Journal of Finance Case Research (10), Journal of Financial Education, (2), and Case Research Journal (2).

We were somewhat surprised by the source (46.54%) and number of cases per year (323) from "Cases written by yourself or colleagues." It appears that a large number of our respondents write and use their own cases. A later question asks case users if they do indeed write cases, and if so, have the cases been published? 90 of the case-users responded that they do write cases (67 do not), and among the 90 casewriters, 30 have had their cases published (60 have not). The most frequent publication outlets were Journal of Finance Case Research (5), Case Research Journal (3), and Journal of Financial Education (2).

Motivation for Case Use

Case users were asked why they used cases in their courses. Five listed responses and one write-in response were listed. From most frequent to least: To provide real world applications for problems (154), To provide for group interaction between students (108), To highlight financial concepts (97), To provide for an alternative to traditional instructional techniques (82), To allow students experience in exploring business environments (81), and Other (14).

One notable response under the 'other' category: "It is a case course" (7). In six of these responses, it was the only reason highlighted. This suggests that there are finance case users whose sole reason for using cases is that the course description called for it.

Casewriting as Intellectual Contribution

All respondents were asked if casewriting and refereed case publications counted towards intellectual contribution credit at their institution. Of the 223 total respondents for this question, 155 (69.51%) respondents answered "yes" while 68 (30.49%) responded "no".

The same information was collected for the two subgroups. Of the 156 responding case users, 116 (74.36%) responded "yes" while 40 (25.64%) responded "no. Among the 67 responding non - case users, 39 (58.21%) responded "yes" while 28 (41.79%) responded "no". This result may suggest that institutional recognition of casewriting as an intellectual contribution would tend to promote casewriting as an academic pursuit. Interestingly, almost 70% of institutions represented in the survey results recognize and count casewriting as an intellectual contribution.

Institutional Characteristics

Characteristics about the respondents' educational institution were collected. Respondents were asked to estimate the size of their institutions by number of students. Case users estimated an average size of 11,691 with a standard deviation of 9,665.255 over 156 observations. Non - case users estimated an average size of 13,364 with a standard deviation of 9,731.59 over 67 observations. We cannot reject a null hypothesis that the means are the same. It appears from this result that the size of the institution has little bearing on whether its instructors use cases at the undergraduate level in finance.

Respondents were asked to indicate the age characteristics of students at their institutions. Among case users, 116 indicated that students were mainly traditional college age (18-22), while 15 indicated students were mainly non-traditional age. 23 case users indicated a relatively even mix of ages. Among the non - case users, 51 indicated that students were mainly traditional college age, 1 indicated students were mainly non-traditional age, and 16 indicated a relatively even mix of ages.

Concerning the institution, respondents were asked to indicate research/teaching emphases at their institutions. Among case users, 20 indicated a mainly research institution, 60 indicated mainly a teaching institution, 47 indicated a mix with few research resources available, and 32 indicated a mix with ample research resources available. Among the non-users, 10 indicated mainly a research institution, 13 indicated mainly a teaching institution, 16 indicated a mix with few research resources available, and 26 indicated a mix with ample research resources available.

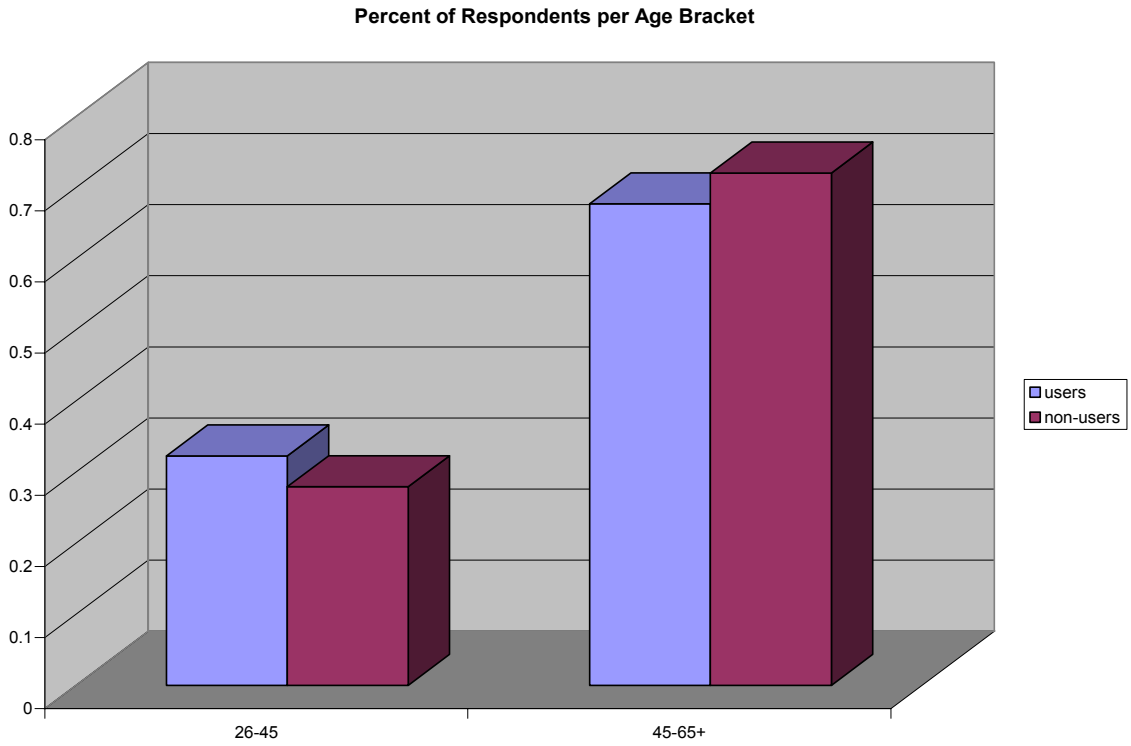
Age and Experience of Respondents

Figure 1 shows a comparison of age breakdowns for respondents. In the graph, an interesting pattern developed when observing the first four categories (ages 20-45) versus the last four categories (46 and higher). Among case users, the proportion in the older age bracket was roughly twice the percentage in the older category. For non-case users, however, the proportion in the older age bracket was 2.57 times the percentage in the younger bracket.

This is a more interesting comparison when considering years of experience. We identify a bracket representing 0-11 years of experience versus a bracket of 12 and more years' experience. Among case users, the proportion in the more experienced category is 2.26 times the proportion of less experienced respondents. Among the non - case users, though, the proportion in the more experienced category is 4.58 times the proportion of less experienced respondents.

We might draw from this that older professors with more years of teaching experience may be less likely to use cases than are younger professors with fewer years of experience.

Figure 1.



CONCLUSIONS

The survey results indicate substantial use of cases in undergraduate finance courses. The sources of those cases included purchases from case text publishers and traditional case production universities, but many case users write their own cases. Few take advantage of free case resources. The motivation for their use of cases appeared consistent with traditional reasons (listed on the survey) for the most part, but it is also apparent that some professors only use cases when the course is designed as a case course.

Casewriting appears to have broad support as an intellectual contribution, and a large number of respondents write and use their own cases. Fewer accomplish peer review and publication. Case writing and use seems to have support from a variety of university types, whether the university has a teaching or research emphasis or whether the university is large or small.

Finally, it appears that that older professors with more years of teaching experience are less likely to use cases than are younger professors with fewer years of experience.

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