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Case Study

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Strategic Decision Making Exam

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EDUCATION AND EXAMINATION COMMITTEE
OF THE
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SPRING/FALL 2016 EXAM

Corporate Finance and
Enterprise Risk Management

Strategic Decision Making

CASE STUDY

RPPC Dynasty Corporation: A Box Full of Growth

The Education and Examination Committee provides study notes to persons preparing for the examinations of the Society of Actuaries. They are intended to acquaint candidates with some of the theoretical and practical considerations involved in the various subjects. While varying opinions are presented where appropriate, limits on the length of the material and other considerations sometimes prevent the inclusion of all possible opinions. These study notes do not, however, represent any official opinion, interpretations or endorsement of the Society of Actuaries or its Education and Examination Committee. The Society is grateful to the authors for their contributions in preparing the study notes.

Table of Contents

Disclaimer

The companies and events depicted in this Case Study are fictitious. Any similarity to any event, corporation, organization and person living or dead is merely coincidental. With the exception of Appendix 3A Exhibit 4 which consists of real press releases related to the airline industry, some narrative material utilizes real locations and real news organizations to make the Case Study seem real. The Associated Press, Wall Street Journal, Standard & Poor's, A.M. Best and others used in this context have never actually commented on any of the fictitious companies.

RPPC Dynasty Corporation: A BOX FULL OF GROWTH

1 RPPC Dynasty Corporation

1.1 Introduction

The leaves rustled as Julia and Emmanuel walked down the trail that surrounded Frenz Corporation's home office. The autumn air was refreshingly cool and awakened the senses and mind after an exhilarating and exhausting two weeks. "I appreciate all you've done the past couple of months," and handing Julia a box, Emannuel said, "I thought this would be appropriate given the words of wisdom you shared at the beginning of this trip." She unwrapped the gift to find a box of gourmet chocolates – one of the many products Frenz sold.

Just two weeks earlier on October 6, 2012, she was with eleven others waiting at the airport, part of two Corporate Planning Teams assigned to visit management at RPPC Dynasty's major businesses and review their 3-year plans. Others had asked what she expected from all the people they would meet. "Hmmm … my favorite movie is Forrest Gump. Forrest's maxim was, 'Life is like a box of chocolates you never know what you're going to get.'" Everyone chuckled as they recounted their favorite Forrest Gump scenes.

Julia's team had been on a whirlwind tour to Russia, Ontario, Texas and their final stop in Antwerp, Belgium to talk apparel, tires, airlines and coffee. She looked at her watch. The other team was already in the air on their way back from New Mexico to Dynasty's headquarters in Luxembourg.

Harry looked out the window and could see the Atlantic coastline in the distance. His team had covered the financial businesses – life insurance, banking and P&C insurance. On his left sat Olivia and Sophie. Olivia was full of energy talking about all the people they had met and the opportunities that had been discussed over the past two weeks. There was a lot to do in the next month before next year's plans were finalized in mid-December - a lot of proposals and alternatives to evaluate. Of course there were questions and issues to resolve - products, markets, distribution, investment strategies and impending regulatory and accounting changes. Some thought they should grow cautiously until the recovery was further along. They felt that selling insurance products and making bank loans in this environment squeezed out any margins and added too much additional risk. She thought the opportunities were now and that RPPC couldn't move fast enough. She recalled that Winston Churchill always favored action - the time to act is now. Harry said, "In any case the financial and risk management areas are going to be busy the next 8 weeks. Remember what happened during the Redeploy Project last year."

Julia thought herself lucky to have been given this opportunity – a chance to shine in a prominent role, a chance to really make a difference. The Risk Management function at RPPC had only been established in 2010. In reality RPPC Dynasty was lucky to have her. She worked long hours in preparation. She had read report after report, countless management memos, policies and process documents and had looked at numbers, metrics, market intelligence analyses and even more numbers. She preferred meeting in small groups. Julia was known as the “Friendly Interrogator”. You couldn’t survive a meeting unless you’d done your homework and had thought through the issues. She helped you be at your best.

Julia had been the CRO’s right hand and was just appointed as CRO recently. Her risk management team was earning the reputation of being business savvy. Her CERA studies had been useful but she was glad she had taken the Corporate Finance & ERM Track in getting her Fellowship in 2008. The material covered in the Strategic Decision Making exam gave her a solid business foundation, strategic mindset and sharpened her critical thinking skills. By continuing to read business and strategy books mixed in with first-hand experience her communication skills and business acumen had been noticed. Life was indeed a box of chocolates.

RPPC Dynasty Corporation History

RPPC Dynasty (also referred to as RPPC or Dynasty) was established in 2000 with head offices in Luxembourg by four founding partners. The corporation’s name is derived from the four founder’s surnames - Ruiz, Putin, Patel and Chan. They had ambitious goals to grow the corporation to become its namesake – a business dynasty respected throughout the world. From the beginning, and still to this day, the focus has been to meet the needs of a globally mobile clientele. The corporation holds a diverse group of businesses. Luxembourg was chosen due to its being a European low tax jurisdiction.

The business roots began in 1985. Mr. Ruiz won a $700,000 lottery. With his winnings and his $20,000 savings, he started a coffee shop business. His $720,000 initial investment in his business had growth steadily into aa billion dollar company today.

The apparel shop began in 1995, also family owned and operated by the Chan family.

In 2000, Mr. Ruiz and Ms. Chan formed a partnership. Soon thereafter two other entrepreneurs were brought in to expand the brand.

In 2001, with the guidance of Mr. Patel, a Bank group was formed.

In 2005, the influence of the mariner background of Ms. Putin, a P&C Insurer corporation was acquired. The P&C group was leaders in personal and commercial marine insurance.

In 2008, the U.S. financial crisis presented an opportunity to acquire a life insurance group to expand the wealth management capabilities of the bank operations.

In 2010, an Airline was bought to appeal to the growing global mobility of the group’s clientele. The Airline has been put through a restructuring initiative to be fitted into the group’s vision.

RPPC Dynasty's growing empire consists of nearly two dozen companies spanning a variety of industries and services.

Mission

Provide high quality and uniquely tailored service to families or businesses that are globally active.

Our family is your family, come experience our difference that is so familiar to you!!

Vision

We provide our customer the comfort of a family friend when they are away from home. We are your family away from home!!

Executive Team

The Executive Team included:
CEO – Mr. Gilroy Clyde (since inception)
CFO – Mr. Houben Huang (5 years)
CRO – Ms. Julia Reich (recently appointed)
COO – Ms. Jane Mulroney (since incorporation, previously preformed CRO functions)

Selling a Success Story

Mr. Houben Huang looked out his window. The trees were bare and the silhouettes against the morning sun always left an impression. December was always a busy month – final business decisions to bring the year to a close, planning always went into overdrive, holiday gatherings and parties, school concerts and plays, decorating and cooking. Cooking was always fun and came with an immediate reward of warm cookies.

On his desk were materials for a debt rating review session with the Trusty Rating Agency on January 6. Much of the material would be used for the upcoming investor analysts meeting and excerpts would form the theme in the 2012 Annual Report to shareholders. But the upcoming debt issuance was paramount to their growth plans. Later this morning he would be meeting for most of the day with Gilroy, Jane and Julia. Within the past few weeks, the Boards of Dynasty and its many businesses had adopted many of Managements recommendations. The Boards had also sent a few proposals back for further analysis and consideration. The Corporate Planning Teams had been invaluable working with the businesses and their planning teams.

The Trusty Presentation Materials highlighted the Dynasty story - main messages and points Management wished to articulate. Some of the content was done and some needed to be updated or revised. Houben had scribbled some notes – how did the material convey and package the following themes?

Business Strategies

Airline	*change, new management customer focus*
Tire	*niche, challenged, need investment or will be sold*
Coffee	*market leader, growth focused*

P&C	*cash cow, niche (Marine (UK), Pet (Canada), Liability, Commercial, Catastrophic) looking to expand to the US*
Bank	*customer oriented wealth management focus growth by M&A integration*
Insurance	*long term interest risk (VA, LCOI) regulatory changes*
Apparel	*boutique fast follower (follow Coach, Michael Kohrs), seasonal volatility*

Trusty would hammer management on challenges, struggles and missteps. There were a few headaches but the biggest message to sell was the Dynasty success story. There were tremendous opportunities in their major businesses and the acquisition team had several new attractive prospects under consideration. Dynasty was well positioned to grow.

Trusty Presentation Materials also include an executive summary of the global market outlook (see Exhibit 1A). This outlook helps the company in strategizing its global expansion plan. It identifies areas that the company has capitalized from these global market changes.

1.2 Governance and Risk Management Overview

Governance

RPPC has the following Executive Committees:

1. Operation's Committee
2. Audit Committee
3. Finance Committee
4. Risk Committee
5. Compliance & Legal Committee

RPPC Risk Management Framework

Vision Statement

We are exposed to a variety of risks that are inherent in carrying out our business activities. *Having an integrated and disciplined approach to risk management is key to the success of our business*. In order to achieve prudent and measured risk-taking that aligns with our business strategy, we are guided by a risk management framework that is embedded in our daily business activities and planning process.

Strengths and Value Drivers

- A Risk Appetite that shapes business strategies and is integrated into our decision-making processes. Risk management is considered a profit generating activity. We believe preventing our organisation from experiencing loss is as beneficial as creating new profit streams from new arenas.
- A unified and strong risk culture that is embedded across the enterprise means that there is consensus opinion on the value and purpose of risk management.

Challenge

- Continued volatility in global economic conditions, causing heightened marketplace uncertainty. This is both a risk as well as an opportunity.

Our Priority

- Broaden and strengthen risk capabilities, including enhancing our stress testing functions to deliver better *insights* to both our risk and business groups. We believe in strongly in assessing risk through a variety of lenses, not simply looking at past performance.

Our Path to Differentiation

- Within our independent oversight framework and the limits of our risk appetite, contribute to the enterprise's customer focus.
- Ensure that risk awareness is pervasive throughout the organisation, at all levels, and all functions, and that the risk for reward trade-off is applied effectively and consistently in all levels of decision-making.

Key Objectives and Recent Achievements

A key objective is to continue embedding our strong risk culture across the enterprise, including newly acquired businesses:

- Emphasize and ensure that at RPPC Dynasty risk management is a process of continual improvement.
- Reinforce our risk independence and our three-lines-of-defense approach to managing risk across the enterprise.

Recent Achievements

RPPC achieved the roll-out of our five step message on our value based approach to enterprise risk management:

- Understand and manage
- Protect our reputation
- Diversify. Limit tail risk
- Maintain strong capital and liquidity
- Optimise Risk Return

RPPC established and formalised the role of **Risk Champion** to ensure strengthened engagement between the office of the CRO and Business operating groups.

Value-Based Enterprise Risk Framework

RPPC risk governance has three pillars.

I The first line of defense at RPPC is the Business operating group, which are responsible for ensuring that products and services adhere to the approval process and profit guidelines of their business. Their mandate is to pursue suitable business opportunities within the Risk Appetite, and to adopt strategies and practices to optimize return on capital employed. They accomplish this by using complicated models of risk, reward and economic capital. RPPC officers must act within delegated risk taking authority, and must have effective processes and controls in place to enable it to operate within its delegated risk authorities and limits.

II The second line of defense is the office of the CRO, along with Enterprise Risk Officers (ERO's) and Subject Matter Experts (SME's) as assigned for specific risk categories or sub categories, which provide oversight, challenge and independent assessment of risk. These risk officers have a significant influence in the level of risk that the company takes and utilizes its risk assessments in major strategic decisions.

III The third line of defense is the Corporate Audit Division which in conducting the internal audit process will provide assessment as to the effectiveness of internal control including control, risk management and governance processes that support the Enterprise, its objectives and the Board of Directors' discharge of its responsibilities. The audit process includes assessment of the underwriting processes, claims management, and other processes that result in significant risks for the company.

The CEO is responsible for the business operating groups. This is known as the first line of defense. The second line is made up risk officers (ERO's and SME's) who work collaboratively with the business operating groups and are engaged through corporate policies that support ERM & Portfolio Management (EPM). These risk officers are governed by the CRO and the risk management committee. The second line has a direct line to the Board and therefore meets "in camera" with the Board. The third line, the Audit officers, also has an "in camera" with the Board.

<table>
<tr><th colspan="5">RPPC Board</th></tr>
<tr><td>Board Risk Committee</td><td colspan="3">CEO</td><td>Board Audit Committee</td></tr>
<tr><td>Risk Management Committee</td><td>Operating Groups</td><td>ERM & Portfolio Management</td><td>ERO's and SME's</td><td>Corporate Audit Group</td></tr>
<tr><td>• Capital Management
• Reputational Risk
• Operational Risk</td><td>1st line of defense</td><td>2nd line of defense</td><td>2nd line of defense</td><td>3rd line of defense</td></tr>
</table>

Risk Culture

Every employee is responsible for risk management at RPPC. The three lines of defense model promote engagement and dialogue between the Business Operating Groups (first line) and the risk office (second line) within the protocols of the Corporate policies that support EPM. The key facilitator of this engagement process is the Risk Champion. The role of the Risk Champion is critical to ensuring that there is buy-in to the process among both business managers and risk officers alike, and ultimately the success enterprise risk management (ERM). This engagement is central to a value based ERM approach as it promotes understanding and alignment with our risk appetite leading to sound decision making.

In support of an overarching goal of continual improvement, the company has two human resource corporate policies that improve risk management: (1) two-way rotation policy TWRP: allow employees to rotate between risk roles and business management roles; (2) continued professional development policy CPDP: obligate employees to attend training on risk management principles and techniques at least once every two years.

Risk Principles

All material risks to which the enterprise is exposed are identified, measured, managed, monitored and reported. Risk awareness must be demonstrated to drive all decision-making within the enterprise. For any risk, a risk based approach is used to calculate its reported Economic capital. Economic Capital is used to measure and aggregate all risks.

Risk Appetite

The Risk appetite is at the centre of our value-based enterprise risk management approach. The clear communication of risk appetite at all levels within each line of business is critical to effective risk-taking in decision making. This is achieved with a business specific risk appetite statements that are aligned with the RPPC risk appetite statement approved by our Board of Directors.

The following RPPC Risk Appetite Statement is a clear articulation of the value creation principles of RPPC. The Board of Directors of RPPC and its executive officers declare that the business operating groups with the support of risk officers will:

- Do not take risks that are opaque, not well understood or that cannot be well managed.
- Identify and quantify low probability tail events.
- Limit exposure to low probability tail event risks that could jeopardize RPPC's credit rating, capital position or reputation.
- Subject all new products or services to a rigorous review and approval process.
- Ensure that the performance management system incorporates risk measures.
- Protect and enhance the RPPC brand by exceeding expectation in the products and services that we deliver to our clients.
- Promote focused differentiation on products and services that leverage RPPC's core competencies to build client trust and to surpass expectations.
- Maintain strong capital and liquidity and funding positions that exceed regulatory requirements.
- Maintain compliance standards, controls and practices that prevent regulatory exposures that could adversely affect our reputation.

Incentive Compensation and Risk Appetite

The business management of RPPC is governed by Key Performance Indicators (KPI) and Key Risk Indicators (KRI). All officers of the company will have their compensation dependent on the following:

- For any risk, the return on its economic capital must exceed the cost of the capital acquired to fund that risk. The CEO of each business operating group must identify and report KPI that indicate that this requirement is being met.
- The payback period on capital invested in a business operating group must not exceed 10 years from the date that capital is first employed. Each operating group CEO must report KRI that indicate for the aggregate of all risk underwritten, that if the business group were to suffer a 1-in-100 year tail event that the capital thereafter would still be able to withstand another 1-in-100 year event. This is referred to redundant capital. This is critical to RPPC's market discipline, because client relationship management and sustainability is promoted over price leadership.
- Through the identification of KPI and KRI, the business management indicates whether the risk being underwritten is within the group's risk appetite. The KPI and KRI are recommended by the business CEO and are approved by a Risk Appetite Consensus Meeting that includes the business executives, CRO, the appropriate risk and business Subject Matter Experts (SME's).

When reporting business plans and KPI, the financial projection must be based on a complete business cycle inclusive of severe market conditions rather than simply best estimate assumptions.

When reporting KRI, scenario results and any stress testing must be demonstrated in the context of the business and directly related to its business driver. Such KRI value based results must be reported, well understood and action-ed at all levels of management within each business group and in all risk decision-making. Scenarios and stress tests are based on transparent deterministic scenarios recommended by the Business and approved by the Risk team.

Only actual past events are deemed relevant in communicating the financial impact of a KRI. Severity is assessed when economic events or business impact are greater than three standard deviations from the average.

Risk Review and Approval Policy

This policy outlines the procedures for the development, review, and procedures for the approval of new products and services within the RPPC conglomerate. The policy is important because it balances the goal of delivering new products in a timely and efficient manner with the need to manage pricing and product development risk. Pricing and product development risk is the risk of financial and/or reputational loss as a result of the unexpected performance of a product or where the costs incurred are greater than those assumed in the pricing of the product.

This policy requires the establishment of product pricing guidelines that describe profit targets for RPPC and performance metrics that must be calculated for all new products and services. This policy also requires the establishment of a product pricing committee that meets periodically to examine the profitability of current and future sales as compared to the product pricing guidelines.

The Role of Risk Champion

The Risk Champion is a critical role which facilitates the Risk Review and Approval Process (RRAP). The Risk Champion is responsible for identifying the relevant business managers, risk managers and SME's which are needed to complete the required risk assessment and risk analysis. In this way, the Risk Champion serves the role of arbitrator for finding the appropriate forum to resolve areas of dispute between the business and the risk review. The purpose of fostering dialogue and collaboration is to build and maintain the buy-in of all stakeholders throughout the RRAP. The Risk Champion is the key communication bridge between the first line and the second line of defense in the risk framework.

This policy involves the following stages:

Feasibility – For all new products and services, a report assessing the feasibility of the new product or service must be created. This report will provide high-level business rationale and risk assessment for the product or service, and must be presented to the product pricing committee before any further development is undertaken. In this phase, all key stakeholders must be identified and interviewed, and any key issues would be identified and further information may be required before proceeding with development.

Product Assessment – All aspects of the product design must be assessed including the marketing analysis and supporting research, the distribution plan, pricing estimates, sales projections, risk adjusted return on capital, and tax implications.

Risk Assessment – All aspects of the risks of the product or service must be assessed, including exposures and ratings as compared to the risk appetite statement. The assessment should also include a summary of the appropriate procedures and controls to be implemented, or already in place, that are required to manage the new product or service once it is launched.

Sign-off and Approval – Sign-off and approval of the new product or service is required by the office of the CRO, the product pricing committee, and the operational head of the business unit. This approval is gained through initial feasibility study and the product and risk assessments and any resulting subsequent discussion and analysis.

Documentation – An official record must be kept of the feasibility study, product and risk assessments, and the approval and sign-off forms. These could be reviewed the internal audit function, external auditors, or regulators as evidence of appropriate due diligence and compliance with internal procedures, as well as providing the rationale for the assessments and decision making.

Risk Monitoring

There are three disciplines to the risk monitoring approach:

- Post implementation review
- Risk based capital assessment
- Stress testing

Post implementation review is the core discipline within the engagement approach that embodies our three lines of defense model. Whenever a business operating group has launched an initiative, the group business managers are obligated to develop and report Key Performance Indicators (KPI) and Key Risk Indicators (KRI) that are specifically related to the initiative and that speak directly to the risk appetite of the enterprise.

The assessment of risk based capital within an Economic Capital framework is one of the key metrics in the measurement and communication of any risk taken on. Economic capital is determined by the Risk Management Committee and is underpinned by the Redundant Capital philosophy. Capital is determined to withstand a 1-in-100 year event, after which the capital position is still sufficient to meet another 1-in-100 year event. Economic capital is also compared with regulatory capital to ensure compliance

Allied with the Economic Capital framework, strong risk management and good business management relies on identifying “what-ifs”. Stress testing is the use of historical extreme economic events and/or periods of poor market conditions to quantify and to communicate the impact on the financial results of a given business operation. Scenarios based on historical events are easy to communicate and to get engagement when assessing value based impact.

On an on-going basis, key risk factors are identified on a global basis by the Risk Management Committee. These key risk factors are developed from on-going global market research and outlook studies which identify global market trends and areas of emerging risks. Exhibit 1A provides an executive summary of the recent global market outlook completed by the Risk Management Committee.

Operations Committee

In an effort to create a more holistic risk oversight structure, the CRO in conjunction with the Risk Champion want to better understand the commonality and interaction of risks between individual business operating groups.

A new initiative this year is to establish a CRO sponsored Operations committee. The Operations committee will meet on a quarterly basis, separate from the risk committee, to assess ongoing risk in RPPC. Amongst their goals, the committee seeks to understand the risks being taken throughout the company, discuss different risk policies and issues, and strengthen governance. One of the major mandates of the Operations committee will be to explore in depth the risk of different operating functions.

The members of this committee are the CRO, COO, CEO, CRO, Risk Champion, and a human resource representative from RPPC. Other guest attendees are invited on an as-needed basis from the various business groups depending on the agenda of the meeting.

Meeting notes and schedules

First Meeting Agenda

In this committee meeting, several of the proposed and recent investments in the various operating groups will be investigated. These are shown in Exhibit 2.

Risk Modelling

Julia, CRO, has recently hired a risk consultant group, FAST Analytics, to propose a quantitative framework in measuring and managing RPPC corporation's risks due to the diversity of its investment and business ventures. Mr. Otto, principal of FAST Analytics, has drafted a proposal naming "*Managing Risks with Fast Actuarial Simulation Technology*" as shown on Exhibit 3.

1.3 New Venture

On November 12, 2015, Robert Sigurdson, a RPPC's Board member, was contacted by Myhotel's president, Randy Smith, to discuss some of Myhotel's recent marketing activities. Randy, a close friend of Robert, is excited about the recent expansion of his hotel chain into the time sharing vacation area. However, this expansion has caused some financial strain to its company. In addition, Myhotel's loyalty program has caused some volatility to Myhotel's financial results in recent years.

The loyalty program was established in 1999 due to a short term need to market the Myhotel brand more broadly and to increase customer sales in a new market segment at that time. Over the years, this loyalty program has grown significantly and thus Randy has set up a new subsidiary to take over this program a year ago. However, with this new subsidiary being set up and the recent expansion plan, Myhotel's capital position is strained. Thus Randy is willing to look at converting the subsidiary into a joint venture or outright selling this subsidiary for some upfront cash.

Robert has taken note of the potential risk exposure of this loyalty business during their discussion. He thinks this business may be a good fit to RPPC's current business lines. Thus he is considering a proposal to Randy to acquire this subsidiary as a new line of business for RPPC. Randy appears to be enthusiastic about the potential sale and has agreed to give RPPC access to the financial data required to assess the company.

Robert returned to RPPC and discussed with the Executive team which includes Gilroy (CEO) , Houben (CFO), Julia (CRO) and Jane (COO) regarding this opportunity to test the waters before approaching other Board members. The following is the discussion that takes place in the meeting on November 30, 2015:

"Hey Gilroy, I met with my friend Randy the other day and see a potential opportunity for us at RPPC. Randy's hotel chain currently has a subsidiary that offers a loyalty program to his hotel chain which helps them in increasing the hotel's market share. However, due to the recent expansion of his business in other areas, Randy is thinking of partnering with a financial conglomerate like us ideally but would also consider a sale offer if the price is right . What do you think of this opportunity?" Robert begins.

"Loyalty company hmmm, I am not sure Rob. We just started to consider the Blue Jay Air loyalty program not too long ago and went into some new challenges with the cut in interchange fees[1] and increased burn–to-earn ratio[2]. I am a bit worried of going full-blown into the loyalty business and the its strain on our capital. Besides, I think AIMCO, a publicly traded loyalty company, has taken a nose dive in their share price recently because of future earnings strain due to reduced interchange fees and reduced margins caused by increased costs of redemption. Bad combination! Julia, any insights into the risk exposures of this type of business?" replies Gilroy.

Gilroy handed out an article on AIMCO which is displayed in Exhibit 4.

Julia replies: "I agree with you Gilroy. We have seen significant uncertainty in our consideration of Blue Jay Air loyalty program but we think our program may help to smooth Blue Jay Air's capacity demand and earnings volatility. If we get into the loyalty business on its own, the risk is probably similar to an insurance program which may tie up some of our capital. However, since this business is not regulated, the margin may be more lucrative than insurance if the price and product features are set up properly."

Jane joins in: "But we may have to worry about competition if the margin becomes too lucrative unless we have managed to become an oligopoly, which is impossible due to low barrier of entry!"

Gilroy concludes: "I believe we need to obtain the financial and product data from Randy first and compare with our airline loyalty program before drawing any conclusion. We also need a market study of this type of loyalty program to consider the potential competition. Julia, please contact Randy and Jane, I want a preliminary market analysis from you. Let's regroup after a month."

Thanks Gilroy!" replies Robert.

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[1] Interchange fees are the fees that help the credit card issuers to cover the various costs including the costs of loyalty programs. Typically the drop in these fees will impact the price paid per mile by credit card issuers to the loyalty program company if the loyalty program agreement permits the drop in fees to be passed through.

[2] Burn-to-earn ratio is the ratio of the amount of redemptions over the amount of air miles sales.

1A RPPC Dynasty Corporation Exhibits

Exhibit 1
Global Market Outlook

Key factors for the global market outlook are summarized as follows:

1. Change in demographics
   a. World population is growing by around 2.0 billion every 15 years. About 95% of this growth is accounted for by developing countries while 5% by developed countries.
   b. The world population is also aging, mainly due to greater life expectancy and to declining birth rates. Life expectancy doubled from 30 to 60 years in the 20th century. At the same time, the global average age has risen from 23 years to 30 years.
   c. Increasing global migration flows where people are migrating from south to north and between developed countries. Industrialized countries are reliant on immigrants to maintain their economy and competing with one another.

2. Increasing complexity and accelerating globalization
   a. Increasingly complex and international trade flows. The increase in global movements of goods has been 2.0 times and the increase in capital transactions is three times the increase of global GDP.
   b. Increasing value chains. Multinational companies are on the rise, from 7,000 in the 1990s and to some 65,000 parent companies today, with 85,000 foreign subsidiaries.
   c. Increasing the degree of complexity where the complexity is measured by number of parties involved and all of their connections, stability of connections, networking of systems etc. These measures increase significantly as globalization process fasten in the 1990s.
   d. Transport and travel are expanding. Increasing risk of pandemic risk.

3. Growing demand in micro-insurance
   a. About 3 billion of the world population are in the target group for micro-insurance, mostly in the South Asia, east Asia and pacific regions.
   b. Premium volume is currently in range of USD $1 to $2 billion and the market is estimated to have potential up to $60 billion in premium.

c. Micro-insurance is strongly supported by government of developing countries and emerging countries, aids agencies and NGOs as a means to tackle poverty.

4. Advancing climate change
    a. Rising number of weather-related natural catastrophes
    b. Changes in the availability of fresh water
    c. Higher losses from weather-related natural catastrophes
    d. Accelerated climate change could lead to a significant decline in the global GDP level.

Exhibit 2

First Meeting: Notes & Schedules

Asset #1	Asset #2	Asset #3	Asset #4
Credit Default Swap on the Senior Tranche of Mortgage Backed Security	Fixed payer oil swap with a large oil production company	Call option where the underlying security is negatively correlated with the counterparty	Put option where the underlying bond is uncorrelated with the counterparty
Darwin Life Insurance Company	Blue Jay Air	Darwin Life Insurance Company	Big Ben Bank
The Mortgage Backed Security (MBS) is a secured asset backed by a mortgage or collection of mortgages, which pays periodic payments similar to a coupon payment. These securities are grouped into ratings as determined by a rating agency, where the senior tranche is the highest rated mortgages. The credit default swap (CDS) provides protection on the credit worthiness of the MBS, so that the risk of default is transferred to the seller of the swap.	A swap in which exchanged cash flows are dependent on the price of oil. Blue Jay Air will exchange fixed payments for payments based on the market's oil price index.	An agreement that gives Darwin the right (but not the obligation) to buy an underlying security at a specified price within a specific time period.	An option contract giving Big Ben the right, but not the obligation, to sell a specified amount of corporate bonds at a specified price within a specified time.
The MBS offers Darwin higher coupon payments than corporate bonds in the market, with little to no risk with the CDS backing.	Blue Jay Air will use the oil swap to hedge against fuel price increases.	Darwin will use call options to hedge their variable annuity products.	Big Ben Bank wants to use put options to hedge against drops in corporate bond market.

Exhibit 3

Managing Risks with Fast Actuarial Simulation Technology (FAST)

In recent years, stochastic simulation has become the standard tool used for measuring and managing complex risks. Compared to deterministic tools, stochastic simulation provides a full distribution of results instead of a single best-estimate result. Thus, risk can be measured by applying risk measures on the distribution. On a micro level, companies may use stochastic simulation to generate risk profiles for individual products and businesses. This is commonly done for the pricing and valuation of individual products. The effectiveness of risk management strategies can also be tested with stochastic simulations. On a macro level, companies may be interested in knowing the total capital requirements in the future and the associated costs of holding capital. Stochastic simulation can be used in this case to project the corporation's future balance sheets under a range of scenarios.

Despite its usefulness, implementing stochastic simulation could become complex with many IT systems and manual processes. Further, stochastic simulation may require a significant investment in computational power despite the numerical techniques available. Fast Actuarial Simulation Technology (FAST) is a high-performance actuarial simulation platform that enables companies to efficiently manage risks using stochastic simulations. FAST implements stochastic simulation in a robust 5-step process that eliminates the discontinuity between systems and enables efficient risk aggregation.

FAST Simulations

Stochastic simulation is used in many situations where simple formulas are not available. FAST implements stochastic simulation in an integrated 5-step process:

1) Identify the risk factors related to the product/business

   This first step is critical. Real world results would be significantly different if an important risk factor or economic variable are left out of the simulation. FAST identifies the important risk factors by re-computing results by varying risk factor levels. The factors associated with the most variations in results are kept. This is a model-free sensitivity or Greeks computation. Greeks are hugely important for risk management. The ability to look to at Greeks before any risk aggregation makes sure that the model is realistic and no important risk factors are missing. FAST considers all common risk factors.

2) Specify appropriate stochastic equations and correlations for modeling the risk factors

Choosing the right model is very much linked to its calibration. An inappropriate model choice would limit the possible distributions it could generate. For example, if the desired distribution of a risk factor has a fat tail, then it would not be possible for a Normal model to model the tail realistically regardless the calibration procedure. The same can be said about correlation structure. The classical Pearson's linear correlation may not be the best choice for many risks that have been shown to have non-linear relationship. Copula is likely to be more suitable for modeling RRPC's complex portfolio of businesses. FAST recommends the appropriate models based on the historical data specified by the user.

3) Calibrate the parameters to statistical distributions

Depending on the application, the parameters can be calibrated to either risk-neutral distributions or real-world distributions. For pricing and valuation of liquid traded instruments, the parameters are calibrated to the risk-neutral distribution implied from the market prices of related instruments. On the other hand, real-world distributions are usually obtained from historical data. By using models calibrated to real-world distributions, we assume that the statistical properties in the past will continue to be valid in the future. In practice, one needs both risk-neutral and calibrations (see next step). Because of this, FAST calibrates the model to both distributions. The two distributions are further linked by a variable called risk premium to ensure consistency. FAST is compatible with leading market data providers.

4) Run Monte Carlo simulations using the calibrated model

Once the model is calibrated, we generate random scenarios for all risk factors for a certain time horizon. The cash flows are re-calculated under each scenario. The cash flows may include only liabilities (in the case of pricing) or both assets and liabilities (in the case of hedging or asset liability management). The simplest type of simulation is so-called time-0 simulation where all the cash flows calculations are based on the current point in time.

Increasingly common in risk management is the use of nested stochastic simulations. Nested stochastic simulation projects the value of assets and liabilities for each scenario in the future by recalculating the value of real-world cash flows at future point in time. The projection of cash flows at a future time is a repeat of the time-0 simulation but assumes the then evolved (risk-neutral or real-world) distributions for the risk factors.

One of the applications of nested stochastic simulation is the valuation of American options. Another application is to measure the effectiveness of hedging strategies. In some cases where pricing or valuation is the goal, Least-squares Monte Carlo is can be used to eliminate the need for brute-force nested stochastic simulations.

This is the most computationally time-consuming step. Depending on the number of simulation paths and the complexity of the model, computation time could be hours or days even with a grid of computers. FAST utilizes the power of graphic processing units (GPUs) to reduce computation time up to 100 times. Because of this technology, users are able to view results near real-time.

5) Analyze results

The last step is to extract information from the data we have produced from the stochastic simulation. For individual products, for example, we may calculate the expected net profit of a business, the average payoff of an option, or the profit and loss of a hedging strategy. For enterprise risk management, we can measure the risk by compute the VaR or the Expected Shortfall (Tail Expectation) from the resulting distribution. Due to the huge data output from the previous step, this is not as easy as it seems. Fortunately, FAST is designed to work with big data. Information can be instantly extracted from huge databases without the constraint of spreadsheet size limits.

FAST Solutions

FAST provides solutions for corporations looking to integrate stochastic simulations into their risk management systems. FAST can be used in many parts of RRPC's business to improve business-level risk management. A few examples include:

- Evaluate commodity price risk and the potential impact of a hedge program to mitigate the risk (Blue Jay Tire Co)
- Estimate the fair value of the loyalty program (Blue Jay Air)
- Evaluate the possible worst outcomes of the loyalty program related to the economic risks (Blue Jay Air)
- Valuation of real options embedded in the business especially when the payoff is path-dependent or the exercise time is flexible. (All subsidiaries)
- Use catastrophe models to simulate the worst-case scenarios and the solvency capital required (Blue Ocean P&C)
- Monitor foreign exchange risk in-house by simulating FX rates (Big Ben Bank)

- Aggregate and report all risks e.g. credit risk, market risk, liquidity risk, operational risk (Big Ben Bank)
- Price secondary guarantees and evaluate the hedging of such guarantees (Darwin Life)

On the corporate level, FAST can be used to provide the following solutions:

- Incorporate simulation-based internal modeling into economic capital calculation
- Establish a risk aggregation framework across the enterprise
- Satisfy regulatory guidelines and produce forward-looking risk and capital reports for the banking and insurance divisions
- Evaluate and compare subsidiary performance on a risk-adjusted return basis, i.e. return adjusted for the cost of capital

Stochastic simulation plays an important role in these applications. A major challenge in implementing stochastic simulation is to make sure the system is able to produce results in a timely manner, especially during times of stress. Due to the large number of scenarios that need to be generated, RRPC needs to balance between accuracy and speed (as a consequence of computational power). The market-leading performance of FAST enables the company to deal with the most complex situation efficiently. Instead of waiting for the system to finish computation, the user can be focused on business problems and receive real-time risk statistics. Additionally, FAST is a transparent system. Auditors and regulators may look at the details of the models and coding if so desired.

Grosso Bank used to rely on in-house ad hoc systems to compute its portfolio risks. The models were run overnight to obtain risk statistics. With the introduction of Basel III, the bank is further required to provide long term risk estimates. Combined with the timely reporting principle, the existing infrastructure was clearly inadequate. After switching to FAST, Grosso Bank was able to reduce the run time to 10 minutes and automate the processes. As a result, the bank not only enhanced its reporting capabilities but also reduced its overall overhead expenses.

In conclusion, FAST provides a streamlined 5-step process that eliminates the need for many separate systems and improves productivity. The high performance of the system enables the company to achieve the goal of efficient risk management and timely reporting.

Exhibit 4
AIMCO News Excerpt

Uncertainty in AIMCO from lower interchange fees and smaller-than-expected international earnings – Is AIMCO taking off?
Source from Bloomberg and Globe and Mail

The share price of the Canadian loyalty program company, AIMCO, an initial public offering (IPO) last year, has taken a nosedive from C$17 to C$10 per share due to not meeting analysts' earnings expectation. During IPO last year, AIMCO had completed a transaction with a major credit card company to offer air miles to the credit card company's existing customers. At that time, AIMCO greatly enhanced the benefits to its air mile members by negotiating an increase in available seats with a major commercial airline company. However, the increased availability has put upward pressure on costs for AIMCO. At the same time, AIMCO was only able to secure a marginal increase in price per mile paid by the credit card company.

There is a timing issue associated with the new deal. As air miles members can now as a whole use many more miles that they earn due to the increased availability, this put significant pressure on AMICO's earnings. AIMCO must now spend an increasing amount to satisfy redemptions even as it may be selling fewer miles to the credit-card issuers. This is expressed as a "burn-to-earn" ratio. This ratio is now working against AIMCO.

During the past year, competitions have been fierce as other credit card companies started their own self-insured programs which added the flexibility of reimbursing their members with the costs of any air travel seats. As competitions intensified, the interchange fee, which are the fees that help card issuers cover the various costs including the costs of loyalty programs, have decreased from 2% to 1.5% for the next five years. AIMCO and the analysts expect card issuers to absorb the blow by cutting the amount they will pay for the air miles. This decrease in interchange fees have called into question AIMCO's estimates of free cash flow as the AIMCO's agreement with the credit card company allows AIMCO to "share the pain" of an interchange cut. AIMCO estimates about C$100 million of gross billing may be at risk if 100% of the cut in interchange fees are passed through to AIMCO. With a 50% share, the target estimate will result in C$50 million of lost free cash flow.

In addition, the currency exchange may also present an issue for AIMCO which operates internationally. The recent decline in Canadian dollar puts a huge cost pressure on AIMCO's US operation which locked in their pricing exchange rate last year without hedging their pricing exchange rate.

All of the above factors have resulted in the earnings estimate to drop from the C$17 to C$10 target, with a negative outlook if existing competitions and drop in Canadian currency exchange rate continue to persist. Investors should expect AIMCO to sit on the runway for some time before any potential takeoff.

2 Blue Jay Air

Other services are customer-oriented. The airline industry is increasingly anti-consumer. It's become a real hassle to travel. That is our opportunity - as long as we are given a chance to compete fairly.

John Feather, CEO of Blue Jay Air, was sitting in his newly renovated executive office and pondering the future strategic direction of his company. Blue Jay Air had undergone a major corporate reorganization two years ago. With a newly appointed Board and a total replacement of the senior management the company had a completely new face. It was time to rebuild its image and re-position itself in the highly competitive local airline market and reconsider expanding into the international arena.

Blue Jay Air had made substantial investments that included major infrastructure. Change couldn't come fast enough for John. Every aspect of service and operations needed to get better. It was the only way. Changing infrastructure was hard up to a point. Changing attitudes and behavior and winning customers – that was hard. How fast and how hard should he push? Some wanted reams of data to move forward. Stay local? Go international? Which routes? Which planes? Remodel or new? Did they have enough capital? Access the capital markets? Sell Blue Jay Tire? He had a good team. He recalled one of Warren Buffett's comments he applied to his management style, "Give a person or a nation a fine reputation to live up to and they will live up to it." John was establishing Blue Jay Air's reputation. He was confident his team would meet the challenge.

2.1 Background

Blue Jay Air was originally incorporated in the United States in the early 1970s. It was a small local commercial passenger carrier, operating only in the Eastern region of the United States. Its target market was high-end business clientele located in major cities along the east coast of the United States. Since then, Blue Jay had gone through three mergers and two significant acquisitions over the last 40 years. The company had been transformed from a focused high-end regional company to an expanded price-competitive commercial carrier, covering the full geographical region of United States as well as major cities in Canada.

During the past 40 years, the airline industry had gone through several significant cyclical business cycles, with each earning cycle trending lower than the preceding cycle, which resulted in significant pressure on the business margins and profits. In addition, with the deregulation in the airline industry during the Reagan administration, the number of commercial carriers had exploded exponentially, thereby had materially decreased consumer prices and also reduced the service level of the airline industry. Due to reduced margins, most companies had severely curbed its operating costs by reducing staff level or restraining salary increases. As a result, labour disputes and disruptions had become a major concern in the industry. The negative impact on the industry was compounded with an aging workforce and insufficient training for the new staff especially for the pilots. Frequency of accident occurrences had trended upwards due to lack of qualified manpower and insufficient compensation level.

Despite all the perils in the industry, Blue Jay Air was resilient in surfing the destructive waves through different reorganization and restructuring efforts. The latest acquisition by RPPC was viewed positively by shareholders and investors. In 2010, the Wall Journal quoted that "the takeover is a step forward for Blue Jay Air." John Feather, who has over 20 years of airline experience, is viewed as a "turnaround" CEO by the industry. Thus the parent company has high expectation in John's new strategic vision.

2.2 Strategies

Blue Jay Air's new strategic vision is to become the most customer-oriented airline company in the world, providing the best services to the marketplace. Comfort, punctuality and safety are the three important virtues that the company has adopted. Thus the number one priority for Blue Jay is to rebrand the company and image. In order to successfully rebrand the company, the company has done an extensive study on its customer base and identified its customers. John believes that understanding and knowing the customers is an important step to improve profitability for the company in the long run.

Based on the customer base study, the company found that more than 55% of its customers are travelling for business reasons. This percentage is significantly above industry norm which is generally around 20%. This founding could stem from the fact that the company was originally a commercial passenger carrier catering to business travelers and so its relationship with the business community was deep-rooted and unique compared to its competitors. In fact, the expansion to leisure travel over the last 15 years did not increase its market share and profit margin as the number of business travelers declined from over 80% to 55% due to reduced services. The rebranding and the change of business model may regain the company's marketability and improve profitability over time.

At the time of acquisition, the company reconsidered its market operations including the expansion to international operations due to increased demand for international travel caused by globalization of the business world. In order to make this strategy possible, the company has been negotiating with several international airport authorities in several European and Asian financial centres and major cities over the last two years to secure a boarding space. Some of these negotiations are close to fruition.

Cost control is a key element in this industry. Labour relationship management is a key cost control element for Blue Jay Air as the labour force is not currently unionized, which is very rare in the industry. In order to maintain this niche, Blue Jay requires an effective management team to foster a cultural change without damaging the relationship with the employees and ensure that their needs are addressed to reduce the desire to unionize. In the past few decades, the company had implemented profit sharing schemes, regular salary scale and benefit reviews, frequent employee networking events, employee suggestion boxes and an employee diversity team to foster communication and pay equity between management and regular staff. These efforts have been working as unionization has not materialized. Thus the company would like to maintain its current employee relationship strategy. The only caveat is that in order to stay competitive, the company has to continue taking further significant expense control measures particularly in these areas of staff count, staff expenses and information technology expenditures. As a result the company has started to cut back on most training programs except the current pilot and safety training programs in order to foster our vision of being the "safest" airline in the industry. The company also imposes tougher standards to qualify for the "top-scaled commercial pilot" category in order to ensure Blue Jay pilots are of highest quality.

2.3 Risk Management

Blue Jay Air, being a highly leveraged capital intensive company, ability to raise debt and servicing the debts are crucial to the survival of the company. Thus a key risk management objective is to maintain the credit rating of the company within the investment grade categories, i.e., BBB- or higher.

As Blue Jay Air has significant pension liabilities for its existing labour force, ability to fund the pension liabilities has become a crucial issue for the company, especially in today's low interest rate environment. Blue Jay Air has increased exposure to interest rate volatility due to the significant amount of long-term debt and finance leases that it has entered into since incorporation.

Since being acquired by RPPC Dynasty, Blue Jay Air has established a risk management committee headed by a well-known risk manager, Jim Peters. Jim was formerly the Chief Risk Officer (CRO) of a major Canadian bank and he was recruited by John under the recommendation from Howard Creston, former CRO of RPPC Dynasty. Jim was a hedge fund manager before he became the CRO of the bank and thus he has extensive knowledge in implementing risk management strategies. Over the last two years, Jim has put together a dynamically hedged portfolio that handles the commodity exposures that the company has been facing as well as the interest rate risks.

In addition, Jim has established a Treasury role under the risk management committee to centralize the long-term and short-term fund raising activities of the company and deal with the liquidity and credit risks of the company. This role is headed by Elaine Saunders who was a former Treasurer of a New York based investment bank. Elaine has a significant network with venture capitalists, pension fund managers as well as private equity fund managers. Elaine has also worked in the Investor Relations area of a major US Commercial Bank and thus has dealt with credit rating agencies such as Standard & Poor's, Moody's, A.M. Best and Fitch. Over the last two years, she has implemented a liquidity model and a credit model to monitor the company's ongoing liquidity and credit needs.

The Risk Management roles and functions are still in the progress of refinement and adjustments. The staffing requirement in these areas is highly specialized and will take time to establish a full staff complement. As a result, the staff workload is currently intensive and turnover rate is slightly higher than the other areas.

2.4 Operations

Planes

It has been 10 years since Blue Jay Air purchased the current fleet of planes. The current fleet of planes is starting to age. Limited passenger capacity renders most of the fleet as unsuitable for international flights. In order to implement an international expansion strategy, the company will have to order or refurbish some larger planes with updated features such as Wi-Fi, expanded business classes, flat beds, bars, and stronger engines with additional safety features to be delivered over the next few years. These planes are catered for added comfort, safety and shorter flight time. They are the ideal planes for international travel. However, the costs of these new planes and refurbishments are significant and will require capital injection or debt guarantees from RPPC Dynasty as Blue Jay Air alone cannot bear these costs without jeopardizing the credit rating of the company.

Even for the short haul planes, the current fleet requires updates such as Wi-Fi capability, individual TV screens and stronger engines to provide additional comfort for business travelers. This will also require additional funding and support from the parent company, RPPC Dynasty.

Given the current business needs, the majority of aircrafts owned by Blue Jay Air are X730 manufactured by Xolar Aircraft. X730 is a twin-engine short- to medium-range wide body jet airliner which can typically seat 280 passengers in a two-class layout, with a maximum range of 8000 km when fully loaded. Other than Blue Jay Air, only five airlines possess this type of aircraft. Four of them use X730 as well for short to medium distance. The remaining ones use S999 manufactured by Skylite Aircraft for medium distance. S999 is a twin-engine medium-range wide body jet airliner which is comparable to X730. Xolar Aircraft has a very long history and is more famous than Skylite Aircraft. As of today, the stock price for Skylite Aircraft is substantially depressed due to its high book-to-market value.

Blue Jay Air is considering acquiring one of the two aircraft manufacturers above in order to extend the presence into another stage of the industry chain. They will not have enough cash for either of the companies, therefore they need to bring in new investors or sell Blue Jay Tire in order to complete the acquisition. Rebecca Gibbs, VP of Operations, submitted the following information and considerations for both Aircraft manufacturers.

Xolar Aircraft is a United states-based corporation with a very long history that designs, manufacture and sells fixed-wing aircraft. The company produces X730 which is among the most recognizable aircrafts for many years. X730 was involved in 27 accidents in 40 years of services, including a very famous incident named the 306 Air Disaster. Xolar has been profitable for over 10 years until last year where they lost a number of new orders to competitor Skylite Aircraft and thus resulted in an unprofitable position. Considering the result of past 10 years, Rebecca believes that last year was just a bad experience and Xolar will perform back to the normal level next year. In particular, Xolar aircraft is having a cost-cutting campaign and expects to see some positive trends in cost control. Rebecca believes that the campaign would be effective. Therefore she included some cost reduction in her forecast, the result being that Xolar Aircraft would be profitable.

Skylite Aircraft is an aircraft manufacturing subsidiary of a global aerospace and defense corporation. The company produces and markets S999 which has been a direct competitor of X730 in last 20 years. S999 was only involved in 11 accidents in this period. Rebecca is in favour of Skylite for safety reason since safety is very important to airlines. On the other hand, due to its substantial operations, Skylite has had significant cost overrun issues. Thus the company has not been profitable for a 5 year period. However, last year Skylite engineered a turnaround due to the new marketing strategic which led to a number of new orders during the year. Using the newest data collected over last year, Rebecca forecasted a profitable position for Skylite Aircraft in coming years.

Loyalty Program

As part of the change in marketing strategy, a business travel loyalty program is being considered to encourage frequent business travels. Blue Jay Air is considering progressive bonus point systems as flight frequency increases over a short period of time. In addition, Blue Jay Air would like to expand its reward systems by partnering with other business partners and its affiliated companies. This will substantially increase the incentive of business travels by business executives.

For example, Blue Jay Air is partnering the loyalty card with its affiliated bank's bank credit and debit cards to introduce a combined credit card with an "enhanced air points reward system." This partnership should further increase the value of the loyalty program.

A modification to the existing application form is required to accommodate the expansion of this new enhanced loyalty program. The current application is an online form which is an electronic version of a paper form. The paper form is currently five pages long with 30 different questions related to the customers' personal information and preferences. The customer data is crucial for current and future marketing analysis. However, the current completion rate is much lower than the target rate due to the extensive information required to be filled out.

Travel Insurance Program

In addition to the travel loyalty program consideration, Blue Jay Air is exploring an opportunity to offer travel insurance to the airline's customers. As part of their commitment to become the most customer-oriented airline, the proposed solution envisions a fully customizable coverage package that allows each traveler to choose what best fits their needs.

Blue Jay Air has identified Blue Ocean as the ideal strategic partner to successfully execute this venture, and CEOs John Feather and Edward Blue have eagerly prepared a business case to bring forward to the RPPC Board. They are very excited about the potential synergies this initiative can realize for the RPPC Dynasty.

As part of the proposal, the risk functions from both companies have collaborated on a preliminary risk review, and have identified some concerns with the initiative.

An email thread discussing some of the key issues of this new proposal are shown in the Section 2A Exhibit 1.

Booking System enhancements

With the technological advancements over the last few decades, Blue Jay Air is considering revamping its booking system to enhance its internet booking capability as well as introducing different mobile phone apps for the major mobile phone systems.

The new system will automatically link up with the loyalty and credit cards for ease of use of loyalty points. It will include tracking of flight schedules, weather systems, time zones and other pertinent information. It will incorporate many added features that will make business travel enjoyable.

Business Lounges

Blue Jay Air will renovate all its business lounges in major cities to enhance its business travel strategy to stay competitive. New business lounges will offer free Wi-Fi, free internet access and amenities such as gourmet Frenz coffee and specialty teas, snacks, massage chairs with music selection and flat beds. The goal is to make business travelers as comfortable as possible while waiting for their flights.

Baggage and Baggage Systems

Blue Jay Air will incorporate a charge for each piece of luggage being checked-in since most business travelers do not check-in their luggage and in response to their competitors' pricing. Free luggage check-in is no longer available except for international flights for which Blue Jay Air will reduce its free luggage check-in policy from two pieces to one piece with no change to the current weight limit. The current Baggage Tracking system seems to be adequate and Blue Jay Air has no plan to upgrade its systems.

Other Cost Measures

Blue Jay Air has decided to discontinue its travel agency programs with different travel agencies as part of the continuing effort to keep the company as cost efficient as possible. Instead the company will establish direct business relationships with its business client base. Blue Jay Air will negotiate direct contractual arrangements with its business clients in order to customize client needs and leverage long-term client business relationships.

A referral program will also be offered to its business clients in order to expand its customer base in the most direct and efficient manner. This referral program will be combined with the loyalty program to optimize value for existing customers.

Financial Statements

Detailed financial statements are shown in the Section 2A Exhibits 2 to 4.

Recent News on Competitors
Recently, several airline companies have appeared on the headlines news in US and Canada as shown in Exhibit 5.

Balanced Scorecard
In order to clarify Blue Jay Air's vision and strategies and to enhance execution of these strategies, the business operation team has established a balanced scorecard for Blue Jay Air.
The intent of this balanced scorecard is to provide senior management with feedback of both the internal business processes and external outcomes, which allows for continuous improvement of strategic performance and results. The balanced scorecard framework is shown in Exhibit 6.

Recent Mandatory Sanitary Measures
Due to concerns regarding recent Eloba outbreaks, Blue Jay Air has taken a "clean plane" policy. All planes have to be sprayed or wiped with anti-bacterial cleaning agent in between flights. In addition, all personnel has to wear disposal gloves in serving customers and handling baggage. Flights to highly infected countries are cancelled based on travel warnings issued by the Overseas Security Advisory Council.

2A Blue Jay Air Exhibits

EXHIBIT 1

Email thread discussing the Travel Insurance program issues

From: Jim Peters
Sent: August 28th, 2015 9:00pm
To: Geoff Olive
cc: John Feather, Edward Blue
Subject: Travel Insurance Risk Review

Hi Geoff,
Has your team reviewed the pricing on the travel insurance proposal? I'm not comfortable that the tail risk is being picked up here. Isn't it possible that a tail event like a plane crash can affect multiple travel insurance policies?

Thanks,
Jim Peters
Head of Risk Management Committee, Blue Jay Air
Telephone: (617) 555 2222
==

From: Geoff Olive
Sent: August 29th, 2015 8:45am
To: Jim Peters
cc: John Feather, Edward Blue
Subject: Travel Insurance Risk Review

Hi Jim,
I'm worried the tail risk here is actually too high for us to retain. As we all know, RPPC wants to limit its exposure to tail event risks. We should sit down and discuss some risk transfer options.

Thanks,
Geoff Olive
CRO, Blue Ocean Inc.
Telephone: 44 (0) 20 7545 7777
==

From: Jim Peters
Sent: August 29th, 2015 10:30am
To: Geoff Olive
cc: John Feather, Edward Blue

Subject: Travel Insurance Risk Review

I think that's worth exploring. I also have a few suggestions on the economic capital model you've been using for pricing. We'll need to ensure that tail dependence is properly modeled. I'll send you some of our work on this.

==

Exhibit 2

Blue Jay Air Corporation
NON-CONSOLIDATED STATEMENTS OF OPERATIONS
(US Dollars in millions)

Fiscal Year Ended	**Dec 31, 2015**	**Dec 31, 2014**	**Dec 31, 2013**
Operating revenues:			
Passenger	1,544	1,235	1,074
Other	291	242	207
Total revenues	**1,835**	**1,477**	**1,281**
Operating expenses:			
Aircraft fuel	574	462	401
Wages, salaries and benefits	359	289	251
Capacity purchase agreements	172	138	120
Airport and navigation fees	158	127	110
Depreciation, amortization & impairment	96	77	67
Aircraft maintenance	110	89	77
Sales & Distribution costs	73	59	51
Aircraft rent	49	39	34
Food, beverages and supplies	42	33	29
Communications and Information technology	33	27	23
Other	19	15	13
Total operating expenses	**1,684**	**1,356**	**1,176**
Net Operating income	**150**	**121**	**105**
Non-operating income (expenses)			
Foreign exchange gain(loss)	15	10	(29)
Interest income	5	5	5
Interest expense	(44)	(36)	(31)
Interest capitalized	2	1	(5)
Net financing expense relating to employee benefits	(2)	(2)	(15)
Loss on financial instruments recorded at fair value	(3)	(7)	(33)
Other	(1)	(2)	(19)
Total non-operating expense	**(28)**	**(31)**	**(127)**
Income (loss) before income taxes	**122**	**90**	**(22)**
Income taxes	(43)	(32)	8
Net income (loss)	**79**	**59**	**(14)**

EXHIBIT 3

Blue Jay Air Corporation

NON-CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(US Dollars in millions)

Fiscal Year Ended	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013
ASSETS			
Current:			
Cash and Cash equivalents	150	140	136
Short-term investments	210	182	83
Total cash & Short-term investments	360	322	219
Restricted cash	15	15	15
Accounts receivable	200	160	127
Aircraft fuel inventory	91	63	48
Spare parts and supplies inventory	120	80	33
Prepaid expenses & other current assets	150	100	70
Total current assets	**576**	**418**	**293**
Property and equipment	545	509	474
Intangible assets	21	21	21
Goodwill	31	31	31
Deposit and other assets	9	7	1
Total assets	**1,542**	**1,308**	**1,039**
LIABILITIES			
Current:			
Account payable & accrued liabilities	150	107	70
Advance ticket sales	310	250	181
Current portion of long-term debt & finance leases	110	80	61
Total current liabilities	**570**	**437**	**312**
Long-term debt and finance leases	470	450	320
Pension & other benefit liabilities	545	556	580
Maintenance provisions	60	55	60
Other long-term liabilities	50	48	43
Total liabilities	**1,695**	**1,546**	**1,315**
EQUITY			
Shareholders' equity			
Share capital	90	90	90
Contributed surplus	30	25	45
Deficit	(273)	(352)	(411)
Total shareholders' equity	**(153)**	**(238)**	**(276)**
Total liabilities & equity	**1,542**	**1,308**	**1,039**

EXHIBIT 4

Blue Jay Air Corporation

NON-CONSOLIDATED STATEMENT OF CASH FLOW

(US Dollars in millions)

Fiscal Year Ended	**Dec 31, 2015**	**Dec 31, 2014**	**Dec 31, 2013**
Cash Flows from (used for)			
Operating:			
Net income (loss)	**79**	**59**	**(14)**
Adjustments to reconcile to net cash from operations:			
Adjust for non-cash items:			
Depreciation, amortization & impairment	96	77	67
Fuel & other derivatives	(20)	(11)	14
Adjust for Changes in non-cash working capital items:			
Change in inventories	(68)	(62)	(32)
Change in account receivable	(40)	(33)	(59)
Change in Account Payable	43	37	(37)
Change in advance ticket sales	60	69	57
Change in pension & other benefit liabilities	(11)	(24)	24
Change in maintenance provisions	5	(5)	5
Other	(50)	(30)	(20)
Net cash flow from operating activities	**95**	**77**	**5**
Financing			
Proceeds from borrowings	150	100	125
Reduction of long-term debt obligations	(63)	64	(104)
Reduction of finance lease obligations & Distributions related to aircraft special purpose leasing entities	(35)	(10)	(74)
Contributed Surplus	6	(20)	35
Net cash flows used in financing activities	**58**	**134**	**(18)**
Investing			
Short-term investments	(28)	(99)	(8)
Additions to property, equipment & intangible assets	(136)	(114)	(36)
Proceeds from sale of assets	4	2	4
Foreign exchange gain(loss)	(4)	(3)	7
Other	2	(1)	0
Net cash flows used in investing activities	**(162)**	**(214)**	**(33)**
Decrease in cash & cash equivalents	**(10)**	**(4)**	**(46)**
Cash & cash equivalents, beginning of year	155	151	105
Cash & cash equivalents, end of year	165	155	151

EXHIBIT 5
Headline News Excerpts on Competitors

5.1 Southwest Airlines

Key Revenue Measure Is Flat for Southwest Airlines

DALLAS -- Southwest Airlines Co. said Friday that a key revenue measure was flat in March, another sign that airlines are struggling to sell more high-fare tickets.

Southwest, which owns AirTran Airways, said that traffic on the two carriers rose 4 percent last month compared with a year earlier, as passengers flew 9.44 billion miles.

Despite the increase in traffic, Southwest said that passenger revenue for each seat flying one mile was unchanged from March 2012. That statistic is a closely watched indicator of pricing power in the airline business.

Airlines are leaving fewer empty seats on their planes _ occupancy is at levels not seen since 1945 _ but they appear to be selling fewer seats at the highest fares or discounting more tickets.

Earlier this week, Delta Air Lines Inc. and US Airways Group Inc. reported weaker-than-expected figures for the same revenue-per-mile statistic and said that last-minute bookings were disappointing. That's important because passengers usually must pay more for last-minute tickets.

Delta and US Airways blamed the weakness in late bookings on automatic federal spending cuts, which presumably would result in less travel by government employees.

Dallas-based Southwest, the nation's fourth-largest airline, raised passenger-carrying capacity in March by 3.8 percent. Airlines can increase capacity by adding flights or making longer trips, which Southwest did.

With traffic rising slightly faster than capacity, planes were a bit more full. Southwest said average occupancy was 82 percent, up from 81.8 percent in March 2012.

In late morning trading, shares of Southwest fell 16 cents, or 1.3 percent, to $12.64 _ about double the rate of decline in the Standard & Poor's 500 index.

5.2 Virgin America

Virgin America: More Elite Fliers Wanted

In a bid to attract coveted elite frequent fliers from other airlines, Virgin America on Tuesday extended its status match program.

Virgin America first introduced the program last November. Certain American and **United** road warriors holding elite status were matched to Virgin's Silver or Gold Elevate status. (*Read more*: **Virgin America Woos Elite American, United Fliers**)

The program was scheduled to end April 30. But Virgin has extended it until June 30 and is inviting **Southwest Airlines** elites to participate.

Travelers who fly at least 25,000 miles annually on American or United will be matched to Virgin America Elevate Silver status. Those who fly 75,000 miles or more on United—or 100,000 miles or more on American—will be given Elevate Gold status. (*Read more*: **How Flying, Just For the Miles, Can Pay Off**)

For **Southwest** fliers, those who hold A-List or A-List Preferred status—25 or 50 qualifying one-way flights annually—will be matched to Elevate Silver status. Southwest Companion Pass holders—100 or more one-way flights annually—will be given Elevate Gold Status.

The matched status upgrade will be valid until June 30. Travelers can extend their status through the end of 2013 by accumulating either 8,000 status points for Silver, or 12,000 status points for Gold by June 30, 2013.

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5.3 Air Canada & Westjet

A new set of headwinds for Air Canada & Westjet
By Brenda Bouw, The Globe and Mail Oct 21, 2014

Airline stocks have hit some recent turbulence amid concerns over slowing global economic growth and the Ebola outbreak, but some investors see a buying opportunity, especially as lower fuel prices cut operating costs.

Shares of Canada's two major airlines, WestJet Airlines Ltd. and Air Canada, have dipped in recent weeks, even as both report steady traffic increases and expect to receive extra revenue from newly introduced baggage fees.

A lower Canadian dollar is a headwind for the airlines, since they make major purchases in U.S. dollars, such as fuel, which makes up about 25 per cent to 35 per cent of an airline's cost base. Some analysts say that should be offset by the drop in the price of the commodity produced from oil.

Benchmark Gulf Coast jet fuel prices have fallen to about $2.40 (U.S.) per gallon, down almost 20 per cent from $2.95 in June.

"The dramatic drop in fuel prices recently does, in our view, provide significant cost relief that should benefit everyone in the industry," said Ben Cherniavsky, an analyst at Raymond James Ltd., in a recent note.

Still, he discourages investors from viewing airline stocks as a way to play falling oil prices, saying GDP growth has a greater impact on airline profits. "It doesn't matter what fuel costs if the seats are empty," Mr. Cherniavsky said.

He has a "strong buy" on WestJet, calling it the carrier with the lower costs, and recently upgraded Air Canada to "market perform" (similar to a hold) from "underperform" (similar to a sell), citing lower fuel prices and its underperformance compared with the overall sector and the S&P/TSX composite index.

Air Canada shares have fallen about 25 per cent from a six-year high of $10.90 (Canadian) reached in June. WestJet shares hit an all-time high of $33.33 in mid-September, but have fallen about 7 per cent since. (Both stocks have recovered in the past couple of days alongside the broader markets.)

Both stocks have been affected by concerns about the impact on traffic from a downturn in the global economy, the spread of the Ebola virus and competition from other, smaller carriers.

Konark Gupta, an analyst at Macquarie Capital Markets, said Air Canada has been harder hit than WestJet and over a longer period because of its thinner margins and greater exposure to international markets, including the weakening European economy.

Mr. Gupta also doesn't believe investors should bet on lower fuel prices to lower costs long-term.

"Fuel is uncertain. What we are seeing with fuel prices right now is likely a temporary shift. [Prices] could rebound," said Mr. Gupta, who has a "buy" on WestJet and a "hold" on Air Canada.

Bruce Campbell, president and portfolio manager at Campbell Lee & Ross, said his firm doesn't own airline stocks because the industry's costs are mainly fuel and labour, both of which they have little control over.

However, if the stocks were hit by a rebound in fuel prices he might consider them as a short-term play given what he calls the "fragile psyche of the market" today.

"We don't like the long-term business, but if they got hit a lot then you might have to look and say, 'There's so much value here we have to do it.' If we did do that it would be new for us," he said.

BMO Nesbitt Burns analyst Fadi Chamoun said steep sell-offs in airline stocks have proven to be a buying opportunities in the past, with the exception of recessions.

"We do not sense the demand environment has deteriorated and we remain positive on the outlook for passenger traffic," Mr. Chamoun said in a note. He has an "outperform" on both Air Canada and WestJet.

Canaccord Genuity analyst David Tyerman believes it's a good time to buy airline stocks, but said the "wild card" is the health of the North American economy.

"At this point, the Canadian and U.S. economic outlook remains supportive for airline demand," Mr. Tyerman said in a note.

Air Canada confirms novel financing for new planes

By Ross Marowits, THE CANADIAN PRESS April 25, 2013

MONTREAL — Air Canada confirmed Wednesday that it plans to tap into a novel way — at least in Canada — of financing the purchase of five new Boeing 777 aircraft. The Montreal-based airline announced the private offering of three tranches of enhanced equipment trust certificates (EETC) worth US$714.5 million.

The aircraft are scheduled for delivery between June 2013 and February 2014.

Loxley Aviation Ltd. has been created to facilitate Air Canada's inaugural offering, Moody's Investors Service said in assigning ratings of Baa3 to tranche A, B1 to tranche B and B3 to tranche C.

The aircraft, configured with 458 seats in economy, premium economy and premium classes, will be used as collateral. Air Canada (TSX:ACB) uses the largest planes in its fleet on long-haul routes.

…

Chris Murray of PI Financial Corp. had predicted the carrier would become the first Canadian airline to tap into a new way to finance aircraft purchases that reduces interest rates. Ottawa's approval in December of an aircraft protocol opens the doors effective April 1 to the EETC trust market that has been used by U.S. carriers for nearly 20 years. Murray added in a report last week that Air Canada may also consider the same financing arrangement for its new Boeing 787 planes set to begin delivery next year.

…

Air Canada's poor punctuality could cost customers, expert warns
Carrier ranked last of 28 major international airlines
CBC News

Posted: Apr 5, 2013 7:31 PM ET. Last Updated: Apr 5, 2013 7:29 PM ET

Air Canada has the worst on-time arrival performance of any major international airline, a CBC *Marketplace* investigation has found.

Numbers from travel information group FlightStats showed just 60.89 per cent of the Canadian carrier's flights landed on time in 2012, the worst on-time performance record of 28 international airlines.

Air Canada's record worsens on the popular Vancouver-Toronto corridor where only 55 per cent of flights arrived on time in 2012. Air Canada competitor WestJet landed on time 70 per cent of the time on that same route.

The airline's performance is "not good," says Anming Zhang, professor of air transportation at the University of British Columbia. He speculates that the airline's poor punctuality will cost it customers.

“If you can arrive on time, it is considered by passengers as a quality of service,” he said. “Unhappy customers are not willing to take your flight if there's a competitor flight [that’s on time].”

Zhang says many factors can cause late flights, including poor weather and international connections.

He points out that WestJet has the advantage of being a largely domestic airline, while Air Canada flies to Europe and Asia, long-haul flights that are more prone to delays.

He also says Air Canada’s fleet could be a problem, since the variety of aircraft types can slow maintenance and repairs.

“If the airline works with a single aircraft type, it's much easier, you know the aircraft inside and out,” he told *Marketplace* co-host Erica Johnson. “Once you mix with different aircraft types and parts, there will be more complicated operations.”

WestJet uses just one aircraft type.

“[Using one model] is much simpler,” he said. “If you have seven or eight aircraft types, versus just one aircraft type, the parts are uniform and mechanics know exactly what happened. It’s much faster.”

Top-ranked Japan Airlines, which lands more than 90 per cent of flights on time, has 10 different aircraft types.

Air Canada responded to *Marketplace*’s investigation with a written statement saying, in part, “Air Canada is now engaged in a company-wide, on-time-performance initiative that is resulting in continuous improvement in this area.”

Starting April 10, Air Canada will require customers on most flights to check their bags 45 minutes before departure time, instead of the current 30 minutes.

Zhang says checking bags earlier is a positive step that should save time, but he also encourages Air Canada to be more transparent about its delays.

“Customers pay for this service and they have the right the right to consume the product as the company has advertised,” he said. “They have a scheduled departure time [and] a scheduled arrival time, and they are entitled to see why there is a deviation from the product you provide and the product you declared in terms of quality aspects.”

5.4 Porter Airline

Porter aims to become Canada's 3rd national airline

CBC News

Posted: Apr 10, 2013 10:25 AM ET. Last Updated: Apr 10, 2013 3:53 PM ET

Porter Airlines confirmed today it plans to buy up to 30 CS100 jets from Montreal-based Bombardier, which would expand the regional carrier's reach from coast to coast, and take direct aim at Air Canada and WestJet.

"We believe it is time to spread our wings," president and CEO Bob Deluce said at a news conference at Billy Bishop Toronto City Airport, where Porter is based. "And so I present to you our vision for the future of Porter Airlines — a vision with service to destinations across North America, from Calgary and Vancouver, to Los Angeles, Miami and Orlando."

The move pushes Porter into direct competition with Air Canada and WestJet as a national carrier, while setting up a potential political standoff over expansion of the island airport in downtown Toronto.

'We believe the CS100 is the perfect aircraft for the next stage of our growth for many reasons, not the least of which is that it is the quietest commercial jet in production.*'—Bob Deluce, Porter CEO*

The conditional deal is to buy 12 Bombardier CS100s, with options on 18 more.

The deal also includes purchase rights for six of Bombardier's Q400 turboprop aircraft, currently the mainstay of the Porter fleet.

The total purchase could reach $2.29 billion US if all the options and purchase rights are exercised.

Delivery of the first jet, which has seating for 107 passengers, is expected in 2016.

The conditional purchase agreement signed on Tuesday is a coup for Bombardier, and ushers in a change in Canadian aviation. That's because the CSeries jets can fly 5,400 km without refuelling, much farther than the current fleet of Q400 turboprop planes that Porter flies to connect 19 cities across Eastern Canada and the U.S.

The airline said the expansion could mean 1,000 new employees, which would bring the total to 2,400.

Potential price war

Joseph D'Cruz, a University of Toronto business professor and aviation expert, said the move could be good news for consumers.

The announcement could lead to a political dispute over the airport, which is near residents on the island and the city's heavily populated downtown. (Marivel Taruc/CBC)

"It's going to be interesting to watch how WestJet and Air Canada react once Porter starts biting into their business," he told CBC News. "They're going to retaliate, and the only way they can retaliate is lower prices."

"This may trigger a vicious price war," D'Cruz said.

Air Canada said that before it takes a position on further investment at the island airport, it wants assurance that takeoff and landing slots will become available for other airlines that have been seeking increased access.

Canada's largest airline currently has only enough landing and takeoff slots to offer service between Montreal and the airport on the Toronto waterfront.

WestJet Airlines did not directly address Porter's plans, but said it remains focused on keeping its own business.

"We expect competition to increase and are preparing accordingly," WestJet spokesman Robert Palmer said in a statement.

…

In a separate interview with The Canadian Press, Kokonis noted that Porter's planes have been flying less full while load factors at WestJet and Air Canada have been improving.

"In a zero sum game where they're all sort of chasing the same passenger, it does give one pause for concern that Porter might be struggling in some areas."

Despite the expansion, Deluce said taking the privately held airline public and raising money through an initial public offering is not a priority right now.

The company had planned to issue shares on the public markets in the past, but shelved them for various reasons.

"We've not thought about an IPO in most recent times," Deluce said. "Sometime in the future it's a possibility."

5.5 Orange Sky Airline

Orange Sky Troubled Past Finally Emerging From Bankruptcy
Excerpt Adaptation from 3rd Edition of Organizational Behavior: A Strategic Approach by Hitt, Michael, Miller, C. Chet, and Colella, John Wiley & Sons
May 30, 2014

Orange Sky Airlines finally emerged from bankruptcy on April 1, 2014 after 3 years and 51 days of internal conflicts and deteriorated management- labor relations, which led to falling stock prices and increasingly dissatisfied customers. The long-dated labour problem dated back at least to 2001 when the company's different union groups (pilots, mechanics flight attendants) were at odds with the company and with each other. The company was able to obtain agreement with the pilots' and the mechanics' union members to reduce their pay in exchange for 25% and 20% of company's stock respectively and 10% to non-union employees. However, this exchange was not endorsed by the flight attendants' union which ended in dispute among the different unions. As a result, the customer services were impacted and flight delays occurred more frequently than other airlines. In addition, management was blaming the unions for all the dilemmas resulted, whereas the unions felt management was making poor decisions, ignoring their input and top executives were still receiving excessive compensation; thereby leading to toxic management-labour relations. As time progressed, Orange Sky experienced more losses caused by substantial reduction in flight sales especially during the 2008 financial crisis, mis-management and inability of Orange Sky to obtain loan of almost $1.5 billion from Air Transportation Stabilization Board (ATSB) to cover its debt in early 2009. As a condition of such loan, Orange Sky would have to make more cutbacks and reduction in wages and benefits. For this to occur, all unions would have to agree to pay cuts. Orange Sky management was unable to reach consensus with the unions. As a result, Orange Sky Airline filed for bankruptcy in early 2011 in order to settle with the different unions and creditors. Today, Orange Sky stock dropped to less than US $1 per share.

5.6 Recent Airline Incidents

British Airways plane catches fire at Las Vegas airport
The Guardian
September 9, 2015

A British Airways jet has caught fire at Las Vegas airport, sending smoke billowing into the air, after suffering what the pilot described as a "catastrophic failure" of the left engine.

Fire officials said 14 people were taken to Sunrise hospital to be treated for minor injuries, including cuts and bruises, most a result of sliding down the inflatable chutes to escape.

All 157 passengers and 13 crew – including three pilots – on board were evacuated, and the fire was swiftly put out by around 50 firefighters. An airport spokeswoman told reporters: "All passengers were evacuated quickly and safely and taken by bus to the terminal.

"We cannot express enough gratitude to the emergency response crews, as well as the British Airways crew."

The National Transportation Safety Board was investigating the incident, she added.

The plane aborted take-off shortly before the fire broke out. The Federal Aviation Administration (FAA) said the Boeing's 777 left engine – manufactured by General Electric – burst into flames.

Dramatic images of flight BA2276 were shared on social media by members of the public at the airport, which is five miles south of downtown Las Vegas.

Guardian reporter Jacob Steinberg was on the plane and tweeted about the evacuation: "Just evacuated on a British Airways flight at Las Vegas airport after an engine caught fire. Don't think anyone hurt.

"Was asleep as the plane took off. Came to a crashing halt. Smell of smoke. Initially told to stay seated, then shout of evacuate. Could smell and see smoke but was on other side of plane. One person said fire melted a couple of windows."

The Crash of Delta 1086: Typical!
The Economist
March 10, 2015

MOST aviation accidents aren't like the disappearance of Malaysia Airlines Flight 370 last year. The crash of Delta Air Lines Flight 1086 at New York's LaGuardia airport last week is far more typical. Delta 1086, a McDonnell Douglas MD-80, was landing at LaGuardia in a snowstorm when it skidded off the runway and into an earthen berm that separates the airport from Flushing Bay. Three people were hospitalised, but no one was killed and all passengers were successfully evacuated.

This is as close to a prototypical airline accident as you can get. It was survivable, happened during takeoff or landing, and didn't result in the total loss of the plane. Many planes get into trouble because of bad weather, which certainly could have been a contributing factor in this case (the National Transportation Safety Board is still investigating). It is also not clear whether pilot error played any role, but the crew of the plane certainly deserve credit for managing a quick and complete evacuation, especially since the aircraft was leaking fuel. The Associated Press has a good roundup of possible causes the NTSB will investigate.

As Dennis Mersereau notes over at *Gawker*, one of the lessons here is that travellers should resist complaining to the airlines about bad weather. It is totally outside of their control, and poor conditions make flying significantly more dangerous. American airports have, in recent decades, struck a good balance between remaining open when it is safe to do so and closing when it's not. And when you think about aeroplane accidents, remember:you're incredibly unlikely to be in one. But if you are, it'll probably be more like Delta 1086 than MH370.

EXHIBIT 6
Blue Jay Air Corporation's Balanced Scorecard Framework

Blue Jay Airlines' Balanced Scorecard Framework

	Objectives	Measurements	Targets	Initiative
Financial	Revenue Growth	Total Revenues	35% Annual Growth	
	Frequent Business Travels	Business Class Load Factor	95%	
	Expense Reduction	Total Operating Expense	2% Annual Decrease	
	Asset Utilization	Higher Tangible Asset	Increase Service Capacity	Refurbish / Purchase
Customer	Frequent Business Travels	% Business Traveler	85%	
	Enhance Loyalty Program	Number of Participants	25% Annual Growth	
	Rebranding / Image	Business Traveler Ranking	# 1	
Internal	Booking System Enhancements	Utilization Internet, Mobile	50% Annual Growth	
	Enhance Comfort and Service	Increase Business Class Capacity	80% of Fleet	
	Turnaround	On Time Departure	85%	
Innovation and Learning	Labor Relationship Management	Employee Satisfaction	Top 10% of Industry	
	Labor Efficiencies	Deacrease Staff Expenses	10% Decline over next 5 years	
	Safety	JACDEC Safety Index, Rank	# 1	

EXHIBIT 7
JACDEC 2014 Aviation Safety Review

From: Jim Peters
Sent: December 1, 2015 9:00am
To: John Feather
Subject: JACDEC 2014 Aviation Safety Review

John –

My team has reviewed results of the 2014 Aviation Safty Review and summarized as follows. Please let me know if you would like to discuss changes to any of our programs based on the results of this report.

- Jim

In 2014 the world´s death toll in commerical air transport has risen nearly four times over the 2013 numbers. Spectacular accidents crippled the unprecedented safety record of last year.

"This is the second highest in the past ten years," writes Jan-Arwed Richter, founder of the Hamburg Aircraft Accident office, called "Jet Airliner Crash Data Evaluation Centre" (JACDEC). The number lies almost four times higher than in the previous year, when only 251 people were killed in aviation accidents killed Righter explained in a previously published paper for the aviation magazine "Aero International".

About half of the fatalities came from the Asia-Pacific region. Although flying remains the safest way of travelling, 2014 marks an untypically year compared to a series of years with falling numbers of victims.

2014 also whirled through the JACDEC security list of the 60 largest airlines.

The world's new leading airline in terms of its safety record, is **Cathay Pacific** from Hong Kong, followed by **Emirates**, **EVA Air** of Taiwan and **Air Canada**. The safest airline in Europe is therefore now the Dutch **KLM** in fifth, ahead of **Air New Zealand** and **Qantas** of Australia.

Thus, the two major disasters affected **Malaysia Airlines** fell from 34th to 57th place now.

Lufthansa remains unchanged claimed their 12th place. Germany's second largest airline **Air Berlin** climbed from 26th to 20th place.

"From the observed 60 largest airlines more than half a dozen lost one of their aircraft", it says in the article. The JACDEC safety score is primaliry calculated by the renevue traffic performance of an airline in relation to the number of serious incidents and total losses it experienced up to 30 years back.

The safest regions in were North America and Eurasia (including Russiaplus all GUS States east of Ukraine) protrude out positive: There was not a single flight accident death.

For Latin America, the analyst came to 10 deaths mostly on flights with vintage machines on non-scheduled operations. The Middle East and Central Asia remained at 57.

Africa was again an accident focus, it experienced 18 aircraft losses and 134 fatalities, although the exceeded by Europe. Including the disaster of the Malaysian Boeing 777 over the eastern Ukraine, the region totals with a number of 300 fatalities now has the penultimate place.

Most deaths occured in the Asia-Pacific region, where the half of all fatalities occured in the past year.

From: John Feather
Sent: December 1, 2015 9:05am
To: Jim Peters
Subject: RE: JACDEC 2014 Aviation Safety Review

Jim –

Budget for improvements is limited, but interested in improving our rank. Please advise.

JF

3 Blue Jay Tire Co

"Who said any publicity is good publicity," wondered Pierre Beaudry, CEO of Blue Jay Tire Co (BJT). He further reflected that it was paradoxical that leaders who live during severe crises get the most press and thus the highest rankings from historians and the popular public – ministers, presidents, mayors and civil leaders. BJT was experiencing both publicity and a crisis. Pierre was confident his team would navigate the recall crisis successfully. It was not the first challenge they had faced nor would it be the last.

"How many major strategic issues can pile on at once?" Thought Pierre. "We have a tire recall and union negotiations at the same time that oil prices are decreasing and minimum wage increasing."

The decreasing oil prices have proven to be positive for tire sales as both consumer and commercial vehicle usage was on the rise. The industry was rife with growth, but the plants in the southern states were near capacity. BJT needs to expand their production capacity soon to support its growth. This and other labor concerns would need to be discussed with the union representatives for the new contracts. Even though the tire recall had only caused a small ripple in consumer sentiment so far, Pierre remained weary. Best to tread gently in light of recent events.

In light of the recall, Pierre knew the press would show no mercy. He knew the Board would demand change. What went wrong? They had risk governance policies, they had risk dashboards, they performed policy audits, they had training programs and they had a well-staffed risk management function. How would the crisis alter their plans and growth strategies? Before the crisis they had tough choices to make. Now the choices would be even tougher. How should he reshape their plans?

3.1 Background

Early History

The Durable Tire Corporation (also referred to as Durable) has been operating in Canada since 1920. The company has a small and loyal customer base in rural areas. The high quality product proved to be very well suited to the rugged Canadian frontier. Durable built tires for farming-related vehicles and small planes intended to be used on dirt roads or off-road on farms and small community towns. The company founders, the Eastern family, were also farmers. Durable also manufactured specialty sold in niche markets. The Easterns always focused on providing the best quality tires that would live-up to the family name and brand.

When the family patriarch passed away in 2000, the family decided to sell its interest in the company. The company was acquired by Blue Jays Air (BJA). BJA had been one of Durable's clients for specialty tires in small aircrafts that flew in the Northern reaches of Canada.

Under BJA Since 2001

Under BJA management, Durable Tire was re-branded for broader appeal. The BJA group felt that it could leverage the capabilities of the manufacturing process to develop a broader range of tires. The tire company re-branded within the BJA group to become Blue Jay Tire (BJT). In 2001, the BJA team initiated a 5 year plan to expand sales and its distribution reach into commercial vehicles across the USA.

The BJA management team increased its focus and oversight towards the BJT venture and its ever-improving financial results as Blue Jay's struggles worsened due to increased competition and squeezed margins.

In 2006, having successfully met and surpassed the 5 year plan objectives set out in 2001, the BJA board directed the Eagle Tire division to pursue an even more ambitious growth strategy . With funding, BJT purchased two manufacturing plants in the southern USA and re-fitted the operation with direction from their Canadian operations. An executive team under the banner of Blue Jay Tire USA (BJT-USA) was setup by the BJA board. This company operated with oversight from its Canadian head office. BJT-USA engineers were asked to set targets at double their pre-acquisition production levels or about triple the level of the Canadian manufacturing plant. At the same time, BJT introduced a tire warranty program that helped to enhance the tire sales and establish the tire brand. With a premium of about 50% of the tire costs, the warranty program provides free tire replacement for seven years from purchase date of every tire. Since inception, this tire warranty program was well received.

BJT-USA surpassed it sale targets each and every year from 2006-2014. BJT-USA, despite its size, achieved a 3rd place market position in tire sales for compact cars and small SUV vehicles in the southern U.S.A. By 2008 BJT dominated the earnings of the Blue Jays Air group. BJT in early 2014 accounted for 20% of the revenue and an astounding 43% of the profit of the Airline group. BJT management was heralded by the executive team, the board and its shareholders as the "star" of the Airline group.

Financials

Detailed 5 year financial statements are shown in Appendix 3A Exhibits 1 to 3.

3.2 Risk Factors

The following risk factor excerpts are taken from the 2014 Annual Report.

Commodity Risk

Although there is a large amount of synthetic rubber used in the manufacturing process, the company still depends a great deal on natural rubber. Typically that is sourced in countries somewhat less stable than the developed world. Natural rubber production is subject to weather related risks. In the Tire Industry rubber represents 52% of total manufacturing purchases. A $0.10 per kilogram increase in natural rubber prices would lead to an estimated $0.5M increase in manufacturing costs.

BJT has maintained the same supplier for over 30 years. The relationship is very strong and BJT benefits from stable pricing. In the past decade BJT has achieved the lowest prices on its commodity purchases because its growth strategy has also benefited the supplier. Volume discounts have been passed on to BJT in the form of better pricing. For BJT rubber now represents only 48% of company purchases down from 60% at the start of the millennium.
Commodity risk is considered to be lower for BJT than its competitors.

Manufacturing Risk
The process of making tires involves chemicals and flammable ingredients. This poses concerns for the workers and the risk of fire is large. In addition, the size of the finished product increases the risk of worker disabilities.

A lost-time injury is defined as an occurrence that resulted in a fatality, permanent disability or time lost from work of one day/shift or more. The Lost Time Injury Frequency Rate (LTIFR), the number of lost-time injuries per million hours worked, is calculated as:

$$LTIFR = \frac{\text{Number of lost} - \text{time injuries x } 1{,}000{,}000}{\text{Total hours worked in accounting period}}$$

Overall, the BJT manufacturing plants have reported a LTIFR of between 2.16 and 2.69 in recent years. This compares reasonably well to the industry average of 2.38. In particular, the LTIFR for the Canadian BJT plant has had best in class safety records at less than 2.0 since inter-company surveys began. In comparison, the U.S. plants have been between 2.56 to 2.99 since being acquired by BJT.

The manufacturing process had been established by the company founders and has had proven success over many decades. The same process and standards are used in both Canadian and U.S. plants. The core competences for quality assurance are in the people who manage the process and the culture of quality management is passed on within the operations team from experienced staff to new associates. Quality management is considered by Executive Management to be a grass-roots competence of the company.

Manufacturing risk is currently considered to be medium for BJT. Management's recent focus has been to return to the historical Canadian operational level of 1.92. A program recently implemented invites retired Canadian and former BJT plant operators to conduct quality management training for existing staff.

Labor Risk
Tire manufacturing plants typically have unionized labor forces. The company might face contentious labor issues in a number of manufacturing plants with unionized labor.

Historically the Canadian operation has not had unionized labor. However, 50% of the employees working in the two U.S. plants are Union members. The current Union contract expires in 2016.

After normalizing for standard of living differentials and exchange rates between geographical locations, the labor cost in the Canadian operation is 35% lower than similar operations in the U.S.

There has not been any disruption in the workforce at any plants. Labor risk is currently considered by Executive Management to be low. However, the number of staff that elect for Union representation has been increasing.

Legal Risk
The possibility of class-action lawsuits exists, particularly in the US. A large risk stems from the chances of paying out large claims and/or having wide-spread product recalls. BJT has not experienced any litigation action in its history.

Distributor Risk
BJT sells almost all its tires through independent distributors. BJT has long standing relationships with several Canadian car dealerships as their sole or primary tire supplier.

Insurance Risk
The key risks in a tire operation are product liability and product recall. Some companies use a captive insurance company to handle this exposure. Historically BJT has retained its risks. The board has requested a feasibility report to examine the solution to effectively mitigate this exposure.

Environmental Risk
Tires are an easy target for environmental groups. Billions of tires are produced each year and billions are discarded. The materials to produce tires and the manufacturing process can be the subject of environmental concerns. BJT maintains a recycling plant for the rubber in its discarded tires. This plant is only able to support operations in Canada due partly to subsidies available from the Canadian government. Efforts in the U.S. for a similar plant are not likely to be economical. Environmental risk is considered to be low due to operation size and overall market share.

Economic Risk
The number of miles driven has a large impact on the demand for tires. The state of the world economy has a direct impact on the company's ability to grow and expand. BJT has chosen to target compact cars and small SUVs which experienced increased sales during the financial crisis (2008 – 2010). It was anticipated that the increased gasoline prices would continue the trend towards the small vehicles. This strategy was proven to be effective as a counter-cyclical impact on sales. BJT experienced market share growth from 5% to 8% during the financial crisis. However, with recent volatility in gasoline prices, it is difficult to anticipate whether such trend will continue.

Overall, economic risk for BJT is considered medium.

Reputational Risk

One of the company's primary strengths is its brand name. BJT must constantly assure that its products are of the highest quality and invest in research & development to continually improve its products. BJT has growing brand awareness within the U.S. market. BJT uses social media monitoring tools to assess its brand awareness. Brand awareness is considered to be a critical determinant of BJT's growing presence in its chosen target market. BJT monitors 5 media channels (e.g. newspapers, television stations and websites) for their positive/negative ratio.

Media channel	Positive/negative ratio
Blog	1.5
Internet Forum	2.7
Newspaper	1.9
Online newspaper	1.7
Associated Press (AP) Newswire	3.2
All media combined	2.2

If the outlier of 3.2 corresponding to the AP Newswire is omitted, then the average positive/negative ratio is 2.0 with a standard deviation of 0.4. Pro-BJT information is generally about twice as persuasive as con-BJT messages. The ratio has grown from 1.8 to 2.2 since BJT began monitoring its brand. This is held to be a sign of BJT's growing reputation in its chosen market. Reputational risk is considered to be low.

Political Risk

The company is exposed to political risk through import/export quotas and price controls. The North American Free Trade Agreement (NAFTA) between U.S.A., Canada and Mexico gave birth to the U.S. operations of BJT. BJT is exposed to future changes in this agreement. During the crisis, U.S. interest lobby groups demanded stronger nationalist policies. There continues to be strong political support for NAFTA, in the current US administration. However, when political leadership is to change in the U.S. and the poor economic growth to persist, NAFTA might be revisited.

The supply chain is also exposed to political risk due to the geographical location of the suppliers which are primarily in Malaysia.

Political risk is considered a medium risk for BJT as a small Canadian firm operating in the U.S.

Currency Risk

Manufacturing costs and the revenue generated are in different currencies resulting in a possible loss. BJT Canadian operations and sales are in Canadian dollars and the U.S operations and sales are in U.S. dollars. 85% of the raw materials are sourced from Malaysia.

3.3 Recall

Recent Tire Recall Issue
Below are the headline news and a series of emails uncovered by the investigative journalist that led to the recent tire recall.

Blue Jay Tire quality or quantity, you decide
by Jennifer Truth

Smallville, Arizona (Associated Press – August 2nd 2014): The Blue Jay Tire Co (BJT) reported in May 2014 that a tire defect which caused a single car accident was an isolated incident. Pierre Beaudry, CEO, issued a statement saying "Blue Jay Tire has a long history of manufacturing excellence but on behalf of our employees we extend our condolences to the Franklin family for their loss. We regret that a BJT tire was responsible for this accident. On behalf of our engineers, line managers and production team, I can assure the Franklin and any family in the USA that we do everything in our power to ensure our tires are the highest quality on the road".

The tire involved on the day in May, was the RU42WD model. Over 40 million of these tires have been sold in the USA. The official report on the accident disclosed that the defective tires exploded causing a sudden loss of driver control.

In July, this reporter uncovered a number of email record related to RU42WD tires in BJT's manufacturing process.

In an email dated Aug 8th 2010, the BJT (Canada) head engineer, Paul Gosling indicated reservation with the speed of the production line resulting in uneven rubber density to a BJT (USA) executive, Jack Tavares. The follow up responses indicate that some corrective action was taken to redress the situation. When contacted, the BJT (USA) head engineer, Chris Carpenter, at the time reported to this paper: "The production process always ran within its design limits. But we did notice tire density variations. We never did test the possible impact of low density tires on automobiles travelling at speed. Instead we relied on the fact that the tire thread wear tests were always within the tolerances commonly used by all tire companies at the time". Chris Carpenter now works for a rival firm.

BJT (USA) refused to comment when contacted about these internal memos and the comments of Mr. Carpenter.

Below are series of emails that were uncovered by AP journalists:
From: Paul Gosling
To: Jack Tavares
Date: August 8, 2010
Subject: Sticky valves and rubber density on tires

Jack –

After visiting ET-USA plant, I did not feel that enough Quality Assurance is in place. In general, I think production is too fast to match demand and not enough checks are being made. Specifically, I have noticed two items: sticky valves on model RU42WR and uneven rubber density on RU42WD. I recommend the line managers to monitor these issues more closely and to tighten the allowed defects – even though this may slow production – so as to correct these issues. Although the valve is more of a nuisance, the density is more of a safety issue, but to be clear, the low density areas are still within prescribed density limits – there are just some noticeable variations within the tires.

I will keep you posted.

Paul Gosling
Head Engineer
Blue Jay Tire (Canada)

From: Jack Tavares
To: Paul Gosling
Date: August 12, 2010
Subject: RE: Sticky valves and rubber density on tires

Paul
Good catch – I will follow up with Chris regarding both RU42WR and RU42WD.
Hope you enjoyed your visit!

Jack Tavares
Chief Risk Officer
Blue Jay Tire (USA)

From: Chris Carpenter
To: Jack Tavares
Date: September 9, 2010
Subject: Tire production

Jack
This is to summarize our calls over the past month.
I think we have both issues solved: as I mentioned on the phone, the sticky values on RU42WR were easily fixed by increasing the lubricant on the silicon machine. RU42WD required more effort and took longer. We discovered a small inconsistency on the centrifuge console. My staff recalibrated it and we have eliminated the density issue. We also increased our spec inspections from 1 in 200 to 1 in 20 until we were confident the fix took.

We are back up to regular production levels again. We are actually considering increasing the product speed.

Thanks again,
Chris
Chris Carpenter
Head Engineer
Blue Jay Tire (USA)

3A Blue Jay Tire Exhibits

EXHIBIT 1

Blue Jay Tire Corporation

NON-CONSOLIDATED STATEMENTS OF OPERATIONS (US Dollars in millions)

FISCAL YEAR ending 12/31/YYYY	2014	2013	2012	2011	2010	2009
Total Gross Sales	**317**	**296**	**277**	**259**	**242**	**230**
Cost of Sales (1)						
Cost of Raw Materials	(16)	(15)	(14)	(13)	(12)	(12)
Production Costs (2)	(32)	(30)	(28)	(26)	(24)	(23)
Depreciation & Amortization	(20)	(20)	(20)	(20)	(20)	(5)
Shipping Costs	(7)	(6)	(5)	(4)	(3)	(3)
Other	(4)	(5)	(6)	(7)	(8)	(4)
Total Costs of Sales	(79)	(76)	(73)	(70)	(67)	(46)
Net Revenue	**239**	**221**	**204**	**189**	**175**	**184**
Operating Expenses						
Research Development	19	21	22	23	24	25
Selling General & Administrative (3)	51	47	43	40	37	35
Non-Recurring (4)	62	70	66	23	27	17
Foreign Exchange Gain(Loss)	11	(6)	(8)	15	20	14
Other (5)	60	49	50	80	27	10
Total Operating Expenses	**203**	**180**	**173**	**181**	**135**	**101**
Operating Income or Loss	**36**	**41**	**32**	**8**	**40**	**83**
Income from Other Revenue and Continuing Operations						
Other Revenue – Warranty program	79	74	69	65	61	58
Other Revenue – Book Sales	13	10	9	8	7	5
Tire Replacement Expenses	(40)	(37)	(35)	(32)	(30)	(29)
Total Other Income/Expenses Net (6)	53	47	44	40	37	34
Earnings Before Interest & Taxes	88	88	75	48	77	116
Interest Expenses	32	32	28	28	24	18
Income Before Taxes	56	56	47	20	53	99
Income Taxes	11	11	9	4	11	20
Net Income from Continuing Ops	**45**	**45**	**38**	**16**	**42**	**79**

Notes:

(1) Includes cost of material & production with overhead
(2) Includes salaries & overheads directly related to production
(3) Includes salaries other than production related
(4) Includes operational process upgrades
(5) Predominantly injury claims
(6) Performance of the tire warranty program and Sales from travel & restaurant guide books

EXHIBIT 2

Blue Jay Tire Corporation

NON-CONSOLIDATED STATEMENT OF FINANCIAL POSITION (US Dollars in millions)

FISCAL YEAR ending 12/31/YYYY	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**
ASSETS						
Current Assets						
Cash and Cash Equivalents	74	68	63	57	52	49
Short Term Investments	113	82	80	84	89	111
Receivables	21	10	9	9	8	3
Inventory	61	60	53	58	48	37
Total Current Assets	**269**	**220**	**205**	**207**	**198**	**201**
Long Term Investments	1,249	1,250	1,100	1,109	1,004	940
Property Plant and Equipment	100	120	140	160	180	50
Accumulated Amortization	-	20	40	-	-	-
Intangible Assets	25	25	25	25	25	5
Other Assets	122	64	68	42	33	53
TOTAL ASSETS	**1,765**	**1,699**	**1,578**	**1,543**	**1,439**	**1,248**
LIABILITIES and EQUITY						
Current Liabilities						
Accounts payable	6	4	4	4	2	2
Short/Current Term Debt	6	6	5	5	5	-
Other Current Liabilities	4	2	4	3	3	2
Total Current Liabilities	**15**	**13**	**13**	**11**	**10**	**3**
Long Term Debt	542	534	457	465	380	250
Other Liabilities	45	34	35	32	30	18
TOTAL LIABILITIES	**603**	**581**	**505**	**508**	**420**	**271**
Equity						
Retained Earnings	1,112	1,067	1,023	985	969	927
Capital	50	50	50	50	50	50
TOTAL EQUITY	**1,162**	**1,117**	**1,073**	**1,035**	**1,019**	**977**
TOTAL LIABILITIES and EQUITY	**1,765**	**1,699**	**1,578**	**1,543**	**1,439**	**1,248**

EXHIBIT 3

Blue Jay Tire Corporation

NON-CONSOLIDATED STATEMENT OF CASH FLOW (US Dollars in millions)

FISCAL YEAR ending 12/31/YYYY	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**
Net Income	**45**	**45**	**38**	**16**	**42**	**79**
Operating Activities, Cash Flows Provided By or Used In						
Depreciation	20	20	20	20	20	5
Amortization of deferred expenses	20	20	20	0	0	0
Adjustments To Net Income:						
Changes In Accounts Receivables	(11)	(1)	(1)	(1)	(4)	(1)
Changes In Liabilities/Account Payables	2	(0)	1	1	1	(4)
Changes In Inventories	(1)	(7)	4	(9)	(11)	3
Changes In Other Operating Activities	0	0	(60)	0	0	0
Total Cash Flow From Operating Activities	**75**	**77**	**22**	**27**	**48**	**83**
Investing Activities, Cash Flows Provided By or Used In						
Capital Expenditures	0	0	0	0	(170)	(10)
Investments	(32)	(1)	3	6	22	(91)
Foreign exchange gain(loss)	0	0	0	0	0	(2)
Other Cash flows from Investing Activities	(56)	(146)	(17)	(114)	(44)	0
Total Cash Flow From Investing Activities	**(88)**	**(147)**	**(14)**	**(109)**	**(192)**	**(103)**
Financing Activities, Cash Flows Provided By or Used In						
Dividends Paid	0	0	0	0	0	0
Sale Purchase of Stock	0	0	0	0	0	0
Net Borrowings	7	79	(8)	85	135	22
Other Cash Flows from Financing Activities	13	(3)	5	2	14	5
Total Cash Flow From Financing Activities	**20**	**76**	**(3)**	**87**	**148**	**26**
Cash & cash equivalents, beginning of year	68	63	57	52	49	42
Cash & cash equivalents, end of year	74	68	63	57	52	49
Change In Cash and Cash Equivalents	**6**	**6**	**5**	**5**	**4**	**7**

4 Frenz Corporation

David Gillet, CEO, was looking forward to seeing the traveling show *Les Misérables* in a few weeks. He associated the musical and its worldwide success with the success of Frenz and his own career. He had first seen the musical a few months after it opened on the West End in 1985 shortly after joining Frenz. David recalled, “In our early days what we we're doing was new - specialty coffee for the worker on the move. We’ve always been in front of the curve – we were early pioneers of store Wi-Fi. Our customers were on the move via the internet. With each passing year competition gets fiercer. Each success is copied. We are expanding globally and expanding product lines but our competition is moving into our markets.”

David wanted to accelerate Frenz’s expansion. His perspective on future growth was global. How well did Frenz’s advantages travel globally? What was the best way to grow especially in the emerging markets? Frenz had an opportunity to secure its supply of coffee beans to fuel its growth. He wanted to increase the rate of new store openings and entered new countries. He was concerned about which geographic regions, whether stores should be franchisee developed or company owned. He wanted to expand product offerings. Frenz had a number of products in trial markets and cities. Which products should be expanded within a country, a region or globally? How many variations? Should they be the same globally or customized for local tastes? He wanted to increase brand recognition and increase customer traffic especially in recently entered countries. What was the most effective means of marketing and how should marketing costs be allocated? How should Frenz leverage its relationship with other sister companies in promoting its brand through other channels?

Existing stores generated cash. Opening new stores was capital intensive. How would Frenz fund growth? What were the risks associated with franchising? How do Frenz manage the licensees? Could Frenz continue to be choosey about site selection and new managers? Would corporate support and quality or service suffer with rapid expansion and new locales? New products had lower profit margins. Should they have promotional sales discounts upon introduction? Would new products sabotage sales of higher margin products? High unemployment and high gas prices had hindered sales and growth. Was this the new norm? The competitors were offering products at lower price points. How should Frenz respond? With expansion of the digital world, how would Frenz tackle this new market? Should Frenz expand and invest in its digital technology which would take away resources and capital from its core business? The parent company, RPPC Dynasty wanted a global risk management framework for all its subsidiaries. How did Frenz fit in this framework? Was the current global funding allocation from RPPC Dynasty adequate for the future growth of Frenz? Should Frenz continue to rely on debt to fund its growth or request more equity investment from RPPC? Would capital be an issue with Frenz’s expansion plan?

4.1 Background

One of the RPPC Dynasty's owners, Mr. Ruiz started Frenz Corporation (also referred to as Frenz) in 1985 from his $700,000 lottery winnings and $20,000 savings. Frenz was initially a sole ownership company until 1988 when the value of the company had grown to 1.2 million. It was then incorporated in Belgium. In 2000, Frenz Corporation became a wholly owned subsidiary of RPPC Dynasty when Mr. Ruiz went into a partnership with Ms. Chan, the owner of an apparel corporation. Over the next 10 years, it has grown into a global premier roaster, marketer and retailer of specialty coffee in the European and American countries. It has operations in most major cities of Europe and America, including all developed countries and some developing countries. Other than company-operated stores, Frenz also sells a variety of coffee and tea products and licenses its trademarks through many other channels such as franchises, groceries, private clubs, hotels, cruise ships and national foodservice accounts.

Today, Frenz is one of the most recognized and respected brand in the "premier" coffee houses as well as household brand in the developed world. Its main competitors in the coffee houses market include Starbucks, McDonald's, Douwe Egberts, Delta Cafés, Genovese Coffee and Markus Coffee. Its household brand's main competitors include Nescafè, Folgers, Maxwell House, Jacobs, Douwe Egberts and Starbucks. Two aspects of its main objective is to maintain its competitive standing and to continue its disciplined expansion of the store base, primarily focused on growth in developing countries.

Mission Statement

Frenz's mission statement is:

One person, one cup, one community, one world. We care about our family.

This mission statement focuses on our objective of being the most recognizable coffee brand in the world.

Board of Directors

Frenz's Board consists of eight members. Three board members are Chief Executive Officers or Board Chairmen in leading public companies in Belgium, two are Board members of our holding company and the remaining Board members are executive officers of Frenz.

In recent years RPPC Dynasty Corporation, the holding company of Frenz, has adopted a global company risk management mandate in order to ensure consistent and unified risk management policies, strategies and processes among the conglomerate groups of companies. In conjunction with the new mandate Dynasty recently hired a Global Chief Risk Officer to oversee implementation. In response to the new risk management strategy Frenz's Board hired an experienced Chief Risk Officer, Robert Kaplan, to develop the risk management strategies for Frenz and to ensure that these strategies fit in Dynasty's global risk management mandate. Robert Kaplan's responsibilities include proper integration of risk management strategies and policies with the global strategies and policies, smooth and controlled implementation of these strategies and cultivation of an acceptable risk management culture for Frenz facilitating its ultimate goal of becoming the top coffee company in the world.

With this new mandate the Board members have some disagreements as to which Board Committee should be given the responsibility of overseeing the work of Robert Kaplan. Some Board members believe that the Audit Committee's role should be expanded to oversee this new risk management mandate. Some Board Committee members believe that this new mandate involves significant strategic changes and should be the Executive Committee's role. Some believe that it should be the role of Related Party and Conduct Review Committee Role's as the strategies will involve significant related party transactions. The Board of Directors has requested Robert Kaplan consult with the Global Chief Risk Officer and provide a recommendation.

Market Strategies

Frenz is dominant in the high-end specialty coffee market especially through its premier coffee house outlets which have over a 40% market share in Europe. However, its market shares in North America, Latin America, developing countries and household coffee constitute only about 18%, 11%, 5% and 16% respectively. There is significant growth potential in these countries where the customer base is still expanding and represents a chance to increase market share without the pressure to take customers from competitors. Frenz's current market strategies are as follows:

- Continue its dominant market position in the coffee houses by organic expansion of its company-operated coffee houses in the developed countries through building more of these company-operated coffee houses in financial districts and high socio-economic areas;
- Further nurture relationships with and loyalty from other distributors such as high-end hotels, private clubs, universities, cruise-liners and upscale grocery and retail outlets such as bookstores and department stores;
- Expand into more developing countries through acquisition of local coffee house chains, franchising and organic growth into more cities and financial districts of the developing countries especially the fast growing Asian market;
- Target local advertising in certain countries to expand its household brand recognition as well as more endorsements with certain significant events such as the World Cup, the Olympics, the World Exhibition and events of regional significance;
- Maintain a significant budget devoted to Frenz's renowned marketing capability which due to investments over many years has achieved significant economies of scale;
- Further enhance the company's ability to quickly develop and roll out new and innovative products which helps defend against potential coffee substitutes as well as serving to further differentiate Frenz from its competitors;
- Expand and build the brand's digital presence and enhance analytics to better understand customer preferences and profiles.

Frenz is also exploring vertical integration by owning and controlling its sources of key ingredients such as coffee beans plantations and tea plantations in order to enhance its quality control as well as developing its own niche products.

Risk Profiles

Frenz faces significant supply-chain risks such as commodity price risks and shipping costs and demand risks such as significant competitive pressures and change in consumer markets. It also faces operation risks, litigation and reputational risks and other market risks which include foreign currency exchange risk, equity security prices, and interest rates. It also faces staff turnover, litigation and reputational risks. Each of these risks is described in detail in Appendix 4A.

Risk Management History

Upon incorporation in 1988, Frenz's owner, Mr. Ruiz, started to develop risk framework for Frenz. He started by building a Risk Committee which consisted of the 4 persons: Lamb, Messy, Percy and Silvia. Later he realized that his Risk Committee was lacking a necessary risk perspective so he recruited one more member, Zheng, into the Risk Committee.

In the post-1988 period, Mr. Ruiz has a strong view on the risk environment, it aligns with Zheng's risk approach; therefore Mr. Ruiz appointed Zheng among all of the Risk Committee members to head up the risk management program of the coffee shop. In the next two years, Zheng's approach had proven to be a success in the environment of the period. At the end of 1990, Mr. Ruiz is not confident on his view on the risk environment in the upcoming period, but since Zheng has proven his program, Mr. Ruiz decided to continue with the same risk management program for the coffee shop.

After Mr. Ruiz and Ms. Chan combined their companies under RPPC Dynasty, a Risk Committee was formerly established in the Board of RPPC Dynasty to oversee the risk management processes in the subsidiaries. Frenz's risk management mandate follows RPPC Dynasty's vision and direction since 2000.

Financial Statements

Detailed financial statements are shown in Exhibits 1 and 2.

4.2 Growth

Growth is never easy as the following examples of external and internal growth pains illustrated.

External Challenges

During the financial crisis in 2008 Frenz suffered significant losses due to reduced market demand as well as significant investment losses. Some Board members were unhappy with the geographical market concentration which caused Frenz's losses.

Today, the Marketing Vice President, Anthony Pirot, is being empowered to implement the recent market strategic goals set by the Board. Anthony Pirot's first priority is to expand into the fast growing Asian market. Anthony Pirot currently leads a team of twenty experienced and mature marketing staff whose experience is predominantly targeting the higher socio-economic clientele in the developed countries in Europe and United States.

This expansion strategy will require significant capital. The new Chief Risk Officer, Robert Kaplan, is uneasy with the expansion strategy as cash flow in Frenz will greatly be strained without additional debt financing which in turn increases the Company's leverage ratio above the conglomerate mandated threshold.

In addition Anthony is expanding its product lines such as the super-premium coffee market and bubble teas and specialty fruit and mixed coffee and tea drinks that have given Frenz a reputation as a product innovator in the market. To this end Frenz is exploring offering coffee made from exotic coffee beans and special tea leaves. There are very few areas that can produce such high–quality premium coffee beans. The best coffee beans are from Costa Rica - the *Finca Palmilera* but they are very expensive. However, through market research Frenz has determined that its customers often cannot distinguish between the premier super-premium coffee bean, *Costa Rica Finca Palmilera,* and its cousin the *Vietombia Finca Palmilera*, whose popularity is not as great, but whose flavor is considered comparable to *Costa Rica Finca Palmilera*.

The Asian country of Vietombia is the largest producer of *Vietombia Finca Palmilera*. Although Vietombia is a major producer of coffee, its domestic consumption is very small. Vietombia has a growing, export-driven economy. The historical statistics on Vietombia is summarized in Appendix 4A.

Despite Vietombia's increased participation in international trade, 10 years ago Vietombia put in place a policy to peg its currency to that of its neighboring countries. The effect of this has been to effectively deflate the value of Vietombia's currency, the *Rubiaceae*, and as a consequence bolster Vietombia's export-driven economy. Independent economic analysis has suggested the deflation of Vietombia's currency has been instrumental to the growth of the Vietombia economy. However, the banking system in Vietombia has been slow in modernizing, and all domestic banks primarily engage in domestic thrift activity, and as a consequence their risk management and hedging programs are in their early stages. Further, the central banking system performs largely a symbolic role.

As a result of Vietombia government's eagerness to stabilize its economy, the government is willing to give an exclusive dealership of the premium coffee beans produced there to Frenz provided Frenz sets up exclusive production facility for these super-premium coffee beans in Vietombia. This presents a significant opportunity for Frenz to gain favorable access to its key ingredient not easily duplicated by competitors, to reduce its reliance on other coffee suppliers, and to control costs as well as influence and control the quality of future coffee bean production.

However, this vertical integration strategy presents significant upfront cost requirements which may substantially increase the company's leverage ratio and lower the overall credit rating for Frenz.

Digital Strategy

Frenz is dedicated to maintaining its renowned marketing capabilities, and reputation as an innovator in the industry. Given the increasing prevalence of technology as a preferred medium for communication and commerce, Frenz has launched a Digital Strategy Group (DSG) with the goals of:

- Building the brand's digital presence
- Using analytics to understand customer preferences
- Enhancing customer experience with technology
- Reaffirming Frenz's origins as the "specialty coffee for the worker on the move"

A Frenz smartphone app is under development, with the following features under consideration:

- GPS-enabled search to find the closest Frenz Coffee House. The DSG is contemplating a partnership with an existing GPS location provider (e.g., Google Maps) and would overlay a Frenz-branded interface. Users can check-in to a particular location and share through various social media platforms.
- Full menu browsing complete with pricing and nutritional information.
- Payment capabilities both through prepaid digital gift cards and charging a stored credit card directly. With respect to charging a credit card, the DSG is contemplating leveraging existing digital payment options (e.g., Apple Pay) or storing credit card information directly within the app.
- Purchase history automatically recorded when in-app payment is used. Users can share recent purchases through various social media platforms.
- Loyalty program to reward frequent customers with exclusive promotions (e.g., every 10th coffee is free). Additional loyalty reward points would be credited for other activities (e.g., signing up a friend to the app).

An app of this scope is not currently being offered by any of Frenz's competitors; however, various features described above have been rolled-out by other market participants.

The DSG is particularly interested in the customer data that will be collected through this app. The data architecture and information security is being developed, and Frenz recently hired Bill Arima, an acclaimed data scientist from Silicon Valley, to get their predictive modeling capabilities up and running as soon as possible. Bill's team has already demonstrated promising results using data collected from beta versions of the app. Frenz is currently seeking a Chief Data Officer to ensure proper data governance.

This strategy is a costly undertaking for Frenz and will be diverting capital away from its core business.

Overhead Allocation

Jeff Bemowski, Frenz Division head of Non-Coffee Product Marketing slunk down in the guest chair in the office of Kitty Dunn, Frenz's Chief Accounting Officer.

"You are killing me with your overhead," Bemowski begins.

"I'm not sure what you mean," replies Dunn. "Our policy for allocating corporate overhead is pretty straight forward and hasn't changed in several years. Overhead costs such as corporate advertising, executive salaries, the rent on this home office building, and so on are accumulated. Then that bucket of corporate overhead is spread over all sales on a uniform basis."

"That's exactly the problem!" retorts Bemowski. "I think we need to change and we need to change it now before....."

"Wait a minute," says Dunn. "We have worked very hard to keep our overall corporate overhead under control. In fact, corporate overhead has increased at only a 5% rate per year over the last five years. That's at a time when the company has grown by over 250% in those same five years. Every summer, we review the overhead allocation ratio and, well, with all our growth, it has gone down every year."

"I know that," responds Bemowski. "What I'm talking about is HOW corporate overhead is allocated. Look, a big part of my bonus is dependent on the profitability of Frenz' non-coffee products. You know, the music CDs, greeting cards, coffee cups, etc. that we sell. I've been pushing our store managers to move these products but your allocation method for corporate overhead disguises the true profitability of my part of the operation."

"Well it is a zero sum game. The overhead is the overhead and it all has to be allocated somewhere, " replied Dunn.

"Yeah but a CD costs more than a cup of coffee," argued Bemowski. "When Frenz does something like run a commercial, we are advertising the whole brand. We want to get customers to come into our stores to have the whole Frenz experience. We get them to come in to our store regularly for coffee. Eventually, they may buy our other products in addition to their coffee. Why should the one CD be saddled with more overhead than all those cups of coffee? It just feels wrong to me!"

"Again," began Dunn, "each product gets an allocation of corporate overhead based on its standard price. That keeps it the same from market to market, where prices might be different and it negates the impact of sales and discounts on items. That seems like a fair system to me but if you don't want to do it that way, what would you suggest?"

"Well I believe our model is that each store is a profit center," says Bemowski. We tell our store managers that corporate supports them but once they are part of the Frenz family, they can make their shop as profitable as they want it to be. The upside is unlimited, their hard work will pay off."

"Wait," interjects Dunn. "There are rules for how the stores must be set up and how the product is displayed. Not to mention quality…"

"I know all that," Bemowski cut in. "But we are allocating overhead in a way that punishes our most successful store managers. Take that corporate overhead and allocate it as $X per store. Corporate supports the store; the store manager is the one who determines how much business the store does." Better yet, allocate Corporate overhead to each store based on smoothed, budget amounts. That way each store manager knows just how much Corporate overhead he has to cover in his store at the start of the year."

"I suppose we could look at it," concedes Dunn. "We have most of the data and we could collect some……."

"You financial-types always want more data. You are afraid to make a decision! It is obvious, change and you are going to get a better look at what stores are on top and which are on the bottom," sputtered Bemowski. "And you will see how important my non-coffee products are to making those top stores, top stores. I can feel it in my bones; you need to get on board or get out of the way."

"We are most certainly not going to change anything without studying it first," responded Dunn calmly, "and there are channels to go through making any expense allocation change. We need to weigh the pros and cons."

"You can't save your way to greatness," said Bemowski getting up and heading toward the door. "Call me when this company is serious about making real money."

And with that, Bemowski was gone. Dunn rubbed her temples. "Marketing," she murmured under her breath.

4A Frenz Corporation Exhibits

EXHIBIT 1
Board of Directors

Felix Hermans is the Chief Executive Officer of Genie Bank of Belgium. He holds a Master of Science in Business Econometrics/Operations Research degree from Tilburg University and has completed professional programs at the Netherlands Institute for Banking, Amsterdam Institute of Finance, Oxford University and INSEAD. He is currently the Chairman of the Frenz's Board and has been a director since 2005.

Fred Coppens is the Chief Executive Officer of Vedegu Chocolate, which is a chocolate manufacturer in Belgium. He holds a Master of Science degree in automation engineering and has been a director since 2009.

Abram Lemaire is a Vice Chairman, Chief Executive Officer, Managing Director and a Member of Management Board at VESET Group SA, an affiliate of Ora Construction Industries Company. He has been a director since 2000.

Gilroy Clyde is the Chief Executive Officer of RPPC, the holding Company of Frenz. He has been director since 2000.

Olivier Collignon is the Deputy Chairman of the Board of RPPC. He has been director since 2000.

Julien Jacobs joined Frenz in April 2000 and has served as Chief Executive Officer since October 2005. He was the CEO of Frenz US, which a subsidiary of Frenz from April 2003 to October 2005. He has been director since 2003.

David Gillet is the Chief Executive Officer of Frenz US since 2005 and has served as president, Frenz China and Asia Pacific, which a subsidiary of Frenz since November 2003. He has been director since 2005.

Vincent Jansen is the Chief Financial Officer of Frenz Corporation and has been a director since 2005.

There are no family relationships among any directors or executive officers. The mandate of the Board was established at the time of incorporation to supervise management of the business and affairs of the Corporation on a broad scale rather than daily management. Its responsibility includes approving strategic goals and objectives, review of operations, disclosure and communication policies, oversight of financial reporting and other internal controls, corporate governance, Director orientation and education, senior management compensation and oversight, and Director nomination, compensation and assessment.

In order to ensure that the responsibility is carried out on a cohesive manner, the Board has established the sub-committees to aid in carrying out its responsibilities.

Executive Committee

The Executive Committee has and may exercise all or any of the powers vested in and exercisable by the Board, including approval of the annual strategic plan. Currently the Executive Board comprises of 5 board members with the Chairman of the Board, Felix Hermans also acts as Chairman of this Committee and the following Board members:

- Fred Coppens
- Olivier Collignon
- Abram Lemaire
- Julien Jacobs

Audit Committee

The primary mandate of the Audit Committee is to review the financial statements of the Corporation and public disclosure documents containing financial information and to report on such review to the Board, to be satisfied that adequate procedures are in place for the review of the Corporation's public disclosure documents that contain financial information, to oversee the work and review the independence of the external auditors, and to review any evaluation of the Corporation's internal control over financial reporting.

The Audit Committee comprises of 4 Board members with Vincent Jansen, the CFO of Frenz acting as the Chair of this Committee and the following Board members:

- Gilroy Clyde
- Abram Lemaire
- David Gillet

Compensation Committee

The primary mandate of the Compensation Committee is to approve compensation policies and guidelines for employees of the Corporation, to approve compensation arrangements for executives of the Corporation, to recommend to the Board compensation arrangements for the Directors and to oversee the management of incentive compensation plans, and to review succession plans for senior management. The current Chair of this Committee is Gilroy Clyde with the following 3 Board members:

- Felix Hermans
- Abram Lemaire
- Olivier Collignon

Related Party and Conduct Review Committee

The primary mandate of the Related Party and Conduct Review Committee is to recommend to the Board procedures for the consideration and approval of transactions with related parties of the Corporation and to review and, if deemed appropriate, to approve such transactions. Fred Coppens is the Chair of this Committee with the following 3 Board members:

- Olivier Collignon
- David Gillet
- Vincent Jansen

Governance and Nominating Committee
The primary mandate of the Governance and Nominating Committee is to oversee the Corporation's approach to governance issues, to recommend to the Board corporate governance practices consistent with the Corporation's commitment to high standards of corporate governance, to assess the effectiveness of the Board of Directors, of Committees of the Board and of the Directors, and to recommend to the Board candidates for election as Directors and for appointment to Board Committees. This Committee is also responsible in recommending the Board on the "Code of Business Conduct and Ethics" policies to ensure and maintain a culture of integrity throughout the Corporation. This Code is applicable to Directors, officers and employees of the Corporation.

Julien Jacobs, the current CEO of Frenz is the Chair of this Committee and the Committee is comprised of the following Board members.

- Olivier Collignon
- Gilroy Clyde
- David Gillet

EXHIBIT 2
Risk Profiles

Supply-Chain Risks

Commodity price risk is the primary supply-chain risk for Frenz. Price volatility of key ingredients such as green coffee, tea leaves and dairy products, etc. presents a substantial exposure to the stability of the product prices as well as profit margins. This is mitigated somewhat by the ability to keep coffee and tea for long periods of time, thus reducing storage costs.

In addition, oil prices also have a direct impact on shipping costs. Frenz incurs substantial shipping costs in transporting the key ingredients to its worldwide retail outlets. Therefore, oil price increases over recent years has eroded Frenz profit margin.

Supply and price can be affected by multiple factors in the producing countries, including weather, political and economic conditions. Price for coffee is also impacted by trading activities in the Arabica coffee futures market, including hedge funds and commodity index funds.

Furthermore, green coffee prices may be affected by actions of certain organizations and associations that have historically attempted to influence prices of green coffee through agreements establishing export quotas, increased tariffs, embargoes, customs restrictions or by restricting coffee supplies. Similar influence also exists for prices of tea leaves.

Frenz hired a commodities expert, Dr. R. Gellar, to provide insight to the underlying costs of their principle ingredient: coffee beans. The report he provided to Frenz cited four key input costs which drive the price of coffee:

1. Water
2. Fertilzer
3. Pesticides
4. Labour

These four input costs drive the wholesale price of coffee, excluding the cost of transportation which is generally absorbed by the purchaser.

Relationships with the producers (coffee, tea & diary), outside trading companies, suppliers and exporters are also pertinent in assessing the risk of non-delivery on purchase commitments and quality of ingredients delivered.

Demand Risks

Competition can be fierce as the capital required to enter the industry is low. The company is facing competition not only from the specialty beverage shops such as Starbucks, Timothy's, Second Cup etc., but also from quick-service restaurants such as McDonald's, donut shops such as Tim Hortons, dessert shops, high-end restaurants and other specialty retailers, etc. Thus the need for the company to keep expanding and differentiating its product lines and venture into unfamiliar territories is being inevitable.

Customer loyalty is pertinent in this trade. As a result, the company will continue to expand its popular loyalty card program, which has been effective in preventing other companies from stealing away Frenz's customers, to include products from other sister companies in the conglomerate group.

Adverse economic conditions may cause declines in general consumer demands for these high-end products, driving the increase in costs and pressure for reduced quality of products, which in turn, may increase impacts from negative publicity.
Adverse impacts resulting negative publicity regarding business practices or health effects of consuming products, etc., may lead to reduction in demand and profitability and increase in litigation.

Operational Risks
As company is facing expansion, risks are associated with each expansion plan that the company is exploring and implementation of these plans can be very challenging and risky as these plans are disruptions to the ongoing business.

Delays in store openings for reasons beyond control, exposure to increased construction costs associated with new store openings and lack of desirable real estate locations availability would also negativity impact the net revenues and profit margins.

Degree to which the company enter into, maintain, develop, and are able to negotiate appropriate terms and conditions and enforce, commercial and other agreements could have significant impact on company financing and operation.

Loss of key personnel or difficulties in recruiting and retaining qualified personnel and labour discord, political instability and natural disasters could cause significant business interruption which, in turn, adversely impacts the business and financial results.

Adverse public or medical opinions about health effects, food tampering, food contamination, regional or global health pandemic could severely and adversely impact the company's business.

As the company relies heavily on information technology, any material failure, inadequacy, interruption or security failure of the technology could harm the ability to effectively operate the business.

Litigation and Reputation Risks
Success depends substantially on the value of the brands especially in the specialty business. Thus the company has to maintain quality of product and be able to consistently deliver positive consumer experience and engage in corporate social responsibility programs to enhance the company reputation. Brand value is based on in part consumer perceptions on a variety of

subjective qualities. Thus even isolated business incidents that erode consumer trust, such as contaminated food or privacy breaches particularly if the incidents receive considerable publicity or result in litigation can significantly reduce brand value.

Reputation may be harmed by actions taken by third parties that are outside of the company's control. Third parties may include business partners, licensee and partnership relationships, suppliers, vendors and any business associates that the company has engaged in past or current dealings.

Proper handling of customers' complaints is very important in protecting the company's reputation and preventing potential litigation.

Foreign Currency Risk
Frenz has operations in many different countries. Frenz has currency exchange risk due to having the currencies of generated revenues being different from the currencies of expenses. Currency volatility has caused significant costs in operation due to timing differences.

Real Estate Risk
Frenz has significant exposure in real estate markets due to investments in commercial properties and operation plants.

Interest Rate Risk
Frenz has debt issuances and fluctuation in interest rates could result in significant impacts on refinancing costs.

Capital Risk
In order to maintain the company's growth rate, Frenz is facing increasing capital risks.

EXHIBIT 3

Financial Statements and Supplementary Data

Frenz Corporation Ltd.

CONSOLIDATED STATEMENTS OF EARNINGS (In millions, except per share data)

Fiscal Year Ended	**Dec 31, 2014**	**Dec 31, 2013**	**Dec 31, 2012**	**Dec 31, 2011**	**Dec 31, 2010**	**Dec 31, 2009**	**Dec 31, 2008**
Net revenues:							
Company-operated stores	$1,214	$1,056	$ 960	$ 890	$ 650	$ 400	$1,360
Licensed stores	127	110	100	85	50	45	200
CPG, foodservice and other	134	117	106	88	60	100	100
Total net revenues	**1,475**	**1,283**	**1,166**	**1,063**	**760**	**545**	**1,660**
Cost of sales including occupancy costs	583	535	495	445	375	255	760
Store operating expenses	423	393	366	355	320	300	400
Other operating expenses	49	45	40	29	25	20	100
Depreciation/ amortization expenses	58	55	52	51	50	50	50
General & administrative expenses	75	70	65	56	30	28	80
Restructuring charges	0	0	0	53	100	200	0
Total operating expenses	**1,188**	**1,098**	**1,018**	**989**	**900**	**853**	**1,390**
Gain on sale of properties	112	55	30	0	0	0	0
Income from equity investments	33	22	18	15	10	(175)	125
Operating income	**320**	**207**	**196**	**89**	**(130)**	**(483)**	**395**
Interest income and other, net	15	14	11	5	5	4	10
Interest expense	(5)	(3)	(3)	(3)	(3)	(3)	(4)
Earnings before income taxes	**330**	**218**	**204**	**91**	**(128)**	**(482)**	**401**
Income taxes	(73)	(54)	(63)	(28)	14	144	(121)
Net earnings (loss)	**$258**	**$163**	**$141**	**$63**	**$(114)**	**$(338)**	**$280**
Earnings per share—basic	$0.52	$0.33	$0.28	$0.13	$(0.07)	$(0.68)	$0.56
Cash dividends declared per share	$0.005	$0.005	$0.005	$0.000	$0.000	$0.000	$0.01
Cash Dividends Paid	**$2.50**	**$2.50**	**$2.52**	**$0.00**	**$0.00**	**$0.00**	**$5.00**

EXHIBIT 4
Frenz Corporation Ltd.
CONSOLIDATED BALANCE SHEETS
(In millions, except per share data)

Fiscal Year Ended Dec 31, YYYY	**2014**	**2013**	**2012**	***2011***	**2010**	**2009**	**2008**
ASSETS							
Current assets:							
Cash and cash equivalents	$187	$159	$138	$116	$90	$20	$200
Short-term investments —available-for-sale securities	115	98	85	24	15	5	100
Short-term investments —trading securities	35	22	25	15	5	5	15
Accounts receivable, net	53	40	84	30	35	60	40
Inventories	102	98	45	44	67	143	95
Prepaid expenses & current assets	35	28	45	16	20	16	30
Deferred income taxes, net	20	21	25	30	35	23	50
Total current assets	**548**	**465**	**447**	**275**	**267**	**272**	**530**
Long-term investments —available-for-sale securities	95	66	10	19	10	5	30
Equity and cost investments	138	88	37	34	15	8	50
Property, plant and equipment, net	450	300	235	245	205	200	300
Goodwill	25	25	25	25	25	25	35
Other intangible assets	10	10	5	5	5	5	15
Other assets	56	48	20	23	5	25	30
Total Assets	**$1,322**	**$1,003**	**$779**	**$626**	**$532**	**$540**	**$990**
LIABILITIES AND EQUITY							
Current liabilities:							
Accounts payable	$45	$33	$24	$28	$35	$40	$50
Accrued compensation & related cost	42	39	36	40	35	10	50
Accrued occupancy costs	17	13	15	17	20	15	20
Accrued taxes	10	10	10	10	5	2	10
Insurance reserves	15	15	15	15	15	15	15
Other accrued liabilities	28	30	32	26	22	15	25
Deferred revenue	42	49	43	41	40	25	60
Total current liabilities	**199**	**189**	**175**	**177**	**172**	**122**	**230**
Long-term debt	177	140	120	110	95	55	55
Other long-term liabilities	71	62	52	45	38	22	92
Total liabilities	**$447**	**$391**	**$347**	**$332**	**$305**	**$199**	**$377**
Shareholders' equity:							
Common stock ($0.001 par value) —authorized, 500 shares; issued & o/s	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5
Additional paid-in capital	44.8	44.8	44.8	44.8	44.8	44.8	0.3
Other additional paid-in-capital	55	50	34	34	34	34	4
Retained earnings	763	508	347	209	146	260	598
Accum. other comprehensive income	11	8	5	6	2	2	10
Total shareholders' equity	**$875**	**$612**	**$432**	**$294**	**$227**	**$341**	**$613**
TOTAL LIABILIATIES AND EQUITY	**$1,322**	**$1,003**	**$779**	**$626**	**$532**	**$540**	**$990**

EXHIBIT 5

Vietombia Statistics

INFRASTRUCTURE	
Economy	
GDP (2014)	USD 70.1 billion
% exports (2014)	USD 62.9 billion FOB 89.73%
Population and employment	
Total population	86 million
Total employment in the coffee industry	600,000 coffee growers
% adult literacy	30%
Average school level for workers in the coffee industry (farms)	Grade 6
% of workers who are landowners	n/a
Number of workers associated to a cooperative	20,000
% workers with permanent contract	5%
Forms of workers representation	
Association of coffee providers	None
% of employees who are part of a trade union	None
Geographical aspects	
Total area of production (hectares)	Cultivated area: 506,000 ha
Number of farms	300,000
History of the coffee industry	
Date of creation	First coffee plantation in 1857 in French colony
Management system/style	n/a
Number of owned farms	n/a
Number of owned thresher	n/a
Economic indicators of coffee industry (net profit, sales, etc.)	Total production: 57.6 million bags (2014) Total exports: 53.8 million bags (2014)
Exports (total exports, % exports against total production)	Total production 961 million tons (2014) Total export 897 million tons (2014) % participation of exports in total production: 93.34%

5 Blue Ocean P&C Company

Ruth Green, Chief Actuary, was watching the year in review shows frequently broadcast as the year came to a close. She watched the replays of the national hero at the Games. Mo Farah took gold in both the 5000 and 10,000 metres. Mo was fast, Usain Bolt was faster but Blue Ocean moved with greater speed. Blue Ocean had been built on innovation and speed to opportunity and speed to market because they view product development as a long-term strategy. They saw a niche and filled it. Everyone looked at the same information. Not everyone saw the same things. Others saw only dots. They made connections. This was the benefit of having cross-functional teams across the organization that have a common understanding of the company's mission, strategy, goals, marketing, sales, and logistics.

There were always questions. Other companies choked from paralysis. Blue Ocean underwriters didn't just sit on ideas ignored by management too busy to be persuaded. Instead management asked what action to take. Management supports the new product development process. Ruth keeps an open channel of communication for new product development ideas, which recently resulted in several new ideas coming across her desk . How could she make it happen? How would they underwrite the risks? Manage the risks? Which segments should they target? Would these most recent niche offerings add value? Why might Blue Ocean fail? What should she do to remove or mitigate those risks? How will she balance the number of projects with available resources?

5.1 Background

Mission and Strategic Plan

Our mission is to strengthen the brand identity as a dominant innovator in the UK market and maximize sustainable long-term growth in shareholder value. Our strategic plan is to capitalize on arenas with new opportunities.

History

Asian-Russian Parent Company acquired Blue Ocean, the 5th largest property and casualty insurance company in the United Kingdom (UK), in 2005. This acquisition gave Parent Company access to Blue Ocean's lucrative insurance market in UK and continental Europe. Products include marine, property catastrophe and retrocession. Since then, Blue Ocean continued to expand and develop its insurance businesses worldwide. In September 2011, Blue Ocean began writing Pet and Travel insurance business in North America. As of the beginning of 2015, the capital base stands at $3 billion.

Ratings

Guided by experienced management and backed by an impressive team of underwriters, actuaries and catastrophe risk modelers, Blue Ocean earned an A.M. Best rating of A (Excellent) and quickly established itself as a market leader.

Management Team

CEO
Edward Blue

CFO
Michael Tan

Chief Actuary	CLO	CRO	Business Ops	CAO
Ruth Green	Jerome Black	Geoff Olive	Andrew Grey	Michelle Rouge

Strategy

The traditional business arena for Blue Ocean has been the marine insurance market. This focus has been very successful in the company's traditional geographical market, the United Kingdom. With the expansion into a new region, company management decided to expand its focus into Pet and Travel Insurance. In keeping with its mission to be an innovative leader the executive team is considering an offering within the emerging Renewable Energy sector. Blue Ocean has an ongoing intiative to identify new opportunites and can redirect the strategic plan in real-time to respond to market forces and new technologies such conducting a feasibility study on whether to offer Solar Personal Energy Insurance to homeowners that have purchased solar planels to produce their own power.

Within the Pet and Travel insurance lines, the goal is to establish a dominant market share in this relatively young insurance field. The financial goals are to generate as much profit and premium from this new risk arena as currently generated in the core Marine business.

Other innovative ideas have also come through the Chief Actuary's e-mail which have been related to insurance opportunities in the Online Peer-to-Peer Commerce space, also known as the "Sharing Economy".

Travel Insurance

Travel insurers faced steep revenue declines during the recession. The recession from 2008 to 2009 caused consumer discretionary spending and, therefore, consumer spending on travel to plummet However, since 2010 industry revenues have grown. The recession and associated turmoil in the international airline industry boosted demand for travel insurance: consumers were more sensitive to protecting their investments in travel expenditures due to higher risk of flight cancellations and delays. The industry is expected to continue growing over the next five years and expand into niche markets catering to students and business travelers. The Travel Insurance industry has a low level of market share concentration.

In order for Blue Ocean to compete in this industry, it offers a comprehensive travel insurance program to its customers. The insurance program includes life and accidental death and dismemberment insurance, trip cancellation and trip interruption insurance, baggage loss insurance, medical and hospitalization insurance, etc. It even offers ambulance and air transportation coverage in case of medical emergencies occurred within the first 60 days of travel. The insurance can be purchased on a per trip basis or on an annual basis for frequent flyers. Unbundling of some benefits are also available.

In order to facilitate this wide range of services, Blue Ocean has established partnership with travel agencies to recover the salvage value of all cancelled trips by offering deep discounts in the last minute travel markets. In addition, it has established partnership with some hotel chains and air ambulance service companies in accommodating its customers in case of emergencies or airline delays. These partnerships are means of reducing the overall costs of the program. Despite its short history in this industry, Blue Ocean has already made significant inroads into the business relationships with its business partners. These relationships have become its competitive advantage in the travel industry.

Pet Insurance

While pet insurance remains a relatively underdeveloped product in North America, with less than 1% of all pets being insured, European levels of insured pets range from 12% to 50%. In many European countries insuring your pet is just as common as insuring your home or car. It's second nature. The UK pet insurance industry is a mature industry. 50% of dogs and 30% of cats are insured with a population estimated at 8.3 million dogs and 11.9 million cats.

The industry is diverse and provides consumers with a multitude of choice in terms of products and types of cover available. Three clear strategies have appeared. The first is the 'menu-based' proposition, where customers are provided with the standard 'vet fees' only product and allowed to choose various coverage options to produce a product that meets their needs. The second option, which the majority of providers offer, is a 'multiple cover' offering, where customers are able to choose products based on set coverage limits. These types of products are often displayed as 'bronze, silver or gold', reflecting the levels of cover offered. The third option is a 'one size fits all' product that offers a static veterinary fees limit and does not allow for flexibility to increase or decrease this limit.

In continental Europe there are 120 million dogs and cats. The percent insured varies by country. For example, in Sweden 55% and 35% of dogs and cats are insured respectively. The U.S. pet insurance industry is in its infancy. Approximately 1% of a population of 155 million cats and dogs is insured. The U.S. industry has grown 18% compounded annually on a premium basis since 2003.

Pet Insurance is coverage for Veterinary Medical Expenses – so the underlying inherent risk is a health risk similar to medical expenses in humans. Although pet insurance is primarily a health risk, in the US it is regulated as a P&C product, since in most states pets are considered property under the law. Typically, they are regulated under the Inland-Marine line of business.

Pet Insurance is characterized by traits associated with really low risk.

- Low Severity ($230/claims)
- High Frequency (1.3 claims per policy/year)
- Ultra-Short-Tail
    - 95% of claims are paid out within 3 months of the loss
    - 99.9% are paid out in 12 months

Because of the ultra-short tail properties there is very little opportunity to earn investment on reserves.

	2015 Premium Income*	2015 Reported profit*
Marine	1,600	120
Pet	400	25
Travel	300	30

* (millions)

5.2 Opportunity

Outlook for Property & Casualty [General] Insurance in 2016:

- **Condition of the Economic and Investment Markets**
  For 2016, Property and Casualty companies will continue to experience a low interest rate environment and a slow recovery of the global recession. Companies should expect limited investment income and will need to rely on improving underwriting margins as a major income source.

  Notwithstanding the low interest expectations, companies will be compelled to strengthen their investment portfolios regarding desired levels of risk and return. This will particularly be the case in Europe, where companies face high uncertainty on their sovereign debt. European insurers have already reduced their exposures to Greece, Ireland, Italy, Portugal, and Spain (GIIPS) holdings in order to increase lower-risk assets.

  To increase portfolio returns, more resources and awareness will need to be allocated to risk management. Companies will need to better understand how these additional risks affect their overall risk profiles. Larger companies should try to develop a competitive advantage, through their greater access to and capacity of available asset classes.

- **Available Areas for Growth**
  Growth for Property and Casualty companies will need to come from a variety of sources, as organic growth becomes more challenging. Particularly in the U.S. and Canada, the absence of a clear, hard market will compel companies to seek alternative ways to grow. Diversification and expansion by geographic location, by product, and by distribution source will become important areas of growth in 2016. Mergers and Acquisitions may prove to be one opportunity for this type of growth.

  Important geographic areas for expansion include emerging markets in Asia-Pacific and Latin America. Expansion into these areas, though, encompasses integration issues (differing cultures, systems, accounting, and reporting) and will amplify currency and political risks. Overall, however, companies must be aware of how any type of expansion will create new risks and understand how these new risks may change their overall risk profile.

  Additionally, Product & Casualty insurers have the opportunity to insure new and emerging exposures through additional product development. Potential product areas include cyber liability, nanotechnology, and new energy sources. Offering new products for new areas improves client relationships and attracts and retains new customers.

Finally, the existing customer base must be utilized as a mechanism of growth. Cross-selling to this base will be an important source of increased profitability and persistency. Like developing new products for new exposures, holding multiple policies and insuring multiple items with the same customer improves the client relationship and will improve the likelihood additional products will be purchased in the future.

- **Customer Preferences**
  Societal factors including technology and the growth of social media are leading to marketing changes. However, the use of the internet as a resource is growing more slowly than expected. Research[3] has shown that those using the internet to research insurance and those using quote comparison websites are still in the minority. Though this growth is slow, the internet as a resource cannot be ignored. It will be imperative that online and non-online channels are integrated, and that companies carefully assess emerging customer preferences. Also, insurance companies will need to develop and maintain ways to protect their image in the expanding digital world.

  Customers will also seek more sophisticated levels of customer service and protection. Providing these services can become a fundamental competitive advantage. In addition, customers will expect to be rewarded for insuring multiple products with one insurer as well as their continued loyalty. Pricing models must be flexible to these expectations.

  Furthermore, items that will continue to be of particular importance to the policyholder include price, product flexibility, the simplicity of the sales and the renewal processes, and good claims experience. In Europe, regulatory changes will reflect the customers' desire for simpler, more transparent products.

- **The Changing Character of Data**
  The volume of available data is rapidly expanding. As data becomes more large and complex, the importance of extracting meaningful information becomes a requirement. In this era of Big Data, a competitive advantage will exist for those who are able to capture, analyze, and integrate data from multiple sources with existing systems and information.

  As technology improves, additional sources of data emerge. Property and Casualty companies will more commonly used vehicle telematics, video monitors, security systems, and gaming systems to gather data. These new methods of obtaining information, however, will place further demands on IT.

  Innovation through the increased availability of data will be a key differentiator in 2016. Companies will have the potential to use historic data for a myriad of decision-making purposes.

[3] *Research was from the USA and Canada*.

Insights on cross-selling and customer retention can be obtained by using data. Moreover, insurers will be propelled to update their infrastructure (focusing on claims and billing) as consumers desire a value-added service experience through technological means. Again, an emphasis will be placed on the successful integration of historic and new data from multiple sources. Furthermore, outsourcing may become less utilized, as more enterprises find that the cost savings may come at the cost of better customer service as well as data integration.

More and more available data may create a shortage of data management talent. Companies will demand new skill sets and will more commonly utilize a Chief Data Officer to oversee data integration, storage, use, etc. In addition, the customer will demand that data will remain secure and personal information will remain private.

- **The Regulatory Environment**

  Property and Casualty insurers must also be mindful of significant regulatory changes that occurred in 2013 and beyond. Overall, regulatory changes will attempt to improve capital management and allocation regarding product mix and geographic presence.

  Solvency II, regarding capital adequacy, went into effect January 1st, 2014. It will be necessary to review and refine capital management strategies in order to be Solvency II compliant. Through the year, companies must finalize the testing and integration of Solvency II systems. These costs will have an effect on income statements, and companies must be prepared to speak to concerns from their stakeholders. Some European countries will also be requesting companies to supply their Solvency II capital positions throughout the year.

  Likewise, the NAIC Solvency Modernization Initiative (SMI) and Own Risk Solvency Assessment (ORSA) seek improve capital adequacy for companies operation in the USA. Issues and projects which remain to be completed by SMI include changes regarding Capital requirements, Governance and Risk Management, Group Supervision, Statutory Accounting and Financial Reporting, and Reinsurance. The Risk Management and Own Risk and Solvency Assessment Model Act was adopted in September of 2012. Changes to the ORSA Guidance Manual started to enact in 2013, with full implementation of ORSA among the states in 2015.

  Insurers will also be preparing for changes brought on by IFRS 9 (asset accounting) and IFRS 4 Phase II (liability accounting.) It is anticipated that these changes will be implemented in 2016 and between 2016 and 2018, with respect to the above. Once again, addressing these implementations involves modifications to data, systems, and processes.

  Other regulatory concerns by region are as follows:

  - Europe
    - The large degree and complexity of emerging tax law especially in the area of Basis Erosion & Profit Sharing (BEPS) and Transfer Pricing (TP)
    - European ban on gender-based pricing
    - Anticipate upcoming non-bank recovery and resolution planning

- Actions of the 2013 European Parliament, including,
  - Markets in Financial Instruments Directive (MIFID II)
  - Packaged Retail Investment Products (PRIPs)
  - Insurance Meditation Directive (IMD)
    - Proposed revisions (2015F) could challenge existing distribution models while creating opportunities to develop new models
    - Improved transparency
- USA
  - Addressing enterprise risk / accountability of management and the board through changes to SOX and SEC rules, for instance
  - A broader focus on financial services and enhanced capital levels, including concerns with run-on-the-bank risk, may affect Property & Casualty Insurers.
- Canada
  - B9 guideline, Earthquake Exposure Sound Practices
  - The new Corporate Governance guideline, with full implementation no later than January 31, 2016.

- **Other Regions**

  The preceding sections have placed an emphasis on insights in Europe, the US, and Canada. Areas of importance for other regions are as follows:
  - Asia-Pacific
    - Top-line growth opportunities (emerging health & pensions markets)
    - Selective in entering / exiting
    - Far-reaching implications of changing regulations on operations, structures, and business models
    - Increasing severity and frequency of natural disasters
    - Technological investment
    - Mobile technology

  - Latin America
    - Real economic growth rates
    - Sustainable profitability
    - Emerging middle class
    - Opportunities in Brazil and Chile to integrate advanced risk and capital management with regulatory reforms
    - Substantial CAT loss exposures
    - Mobile technology’s effect on consumer behavior
    - Flexibility, innovation, strategic alliances

  - Nordic Countries

- Varied economic climate
- Effects of European regulation (capital and risk management, distribution, product design)
- Transparency regarding product pricing, costs, and consumer benefits crucial to growth
- Focus on risk selection and pricing when it comes to developing an investment portfolio

Renewable Energy Insurance Business profile
Renewable energy and its associated technologies are an emerging industry. There are considerable uncertainties for companies operating in this industry to predict their income generation capabilities. There are two key sources of uncertainty: 1) the productivity of a given technology to generate given units of energy, and 2) market price of selling units. The intended focus of our insurance solution for this industry is to offer protection on the income generated by energy suppliers.

The renewable energy lines of business segments include:

Types
Solar
Wind
Water
Commercial and personal

Overview of Solar Personal Energy Insurance
The target homeowner for this insurance program has over 1,000 sq. ft. available roof space for mounting solar panels. The typical client has purchased solar panels that can generate between 7,000 to 12,000 khw of energy per year and depending on the cost of the panels can be enticed into a fixed contract to sell the energy generated for between 30c to 60c per khw (c = cents). A solar personal contract would either guarantee the number of units that are generated (7000 khw), or the sale price per unit (30-60c), or both (4000 khw sold at 40c). In exchange Blue Ocean would receive the actual units of energy generated and would sell them in the energy market via electrical companies. Some of the electric companies would be either privately owned or government regulated or run by the state department.

There is a trend in North America for families to purchase their own personal solar grids. Our five year plan is to become the face of the insurance to this group.

Blue Ocean Feasibility Study – 2015 Initiative
Blue Ocean hired *Able Energy Consulting Group.* Exhibit 1 provides *Market Data* on the number of detached homes in the U.S., energy production per solar panel and electric company seasonal prices and volatilities. As expected with all new product development projects, Blue Ocean takes a concept

and product, and consistently conducts market testing to determine if the project should be undertaken by the company.

Below is an excerpt from the business plan pro-forma that was created to gain funding approval to enter this line of business.

	2016	2017	2018	2019	2020
No. of homes insured	1,200	2,600	4,200	6,000	8,000
No of electric co contracts	5	11	17	25	33
Energy (khw) gen per home	9,000	13,500	20,250	30,375	45,563
Fees paid per khw (cents)	60	50	40	30	20
Energy Co resale rate (cents)	80	70	60	50	40
Contingency liability (MM)	1.08	1.62	2.43	3.65	5.47
Target capital (MM)	2.16	7.02	17.01	36.45	72.9

Reserve methodology
Below is an email thread discussing the reserve methodology for the renewable energy business.

From: Michael Tan
Sent: March 28th, 2015 9:00pm
To: Ruth Green
Subject: Risk capital

Hi Ruth,
How are you? Thanks for sending me the draft plan. I have reviewed the high level financial projections. I noticed that the contingency liability increases faster than the fee income line. Can we have a meeting to discuss the results?
I am reviewing the corporate level capital figures. I would also like to discuss capital for this line of business.

Thanks,
Michael Tan
CFO, Blue Ocean Inc.
Telephone: 44 (0) 20 7545 8888
===
From: Ruth Green
Sent: March 28th, 2015 9:08pm
To: Michael Tan
Subject: Re: Risk Capital

Hi Michael,
I am doing well. Hope all is well with you.
Thanks for your note. I am also reviewing these figures in more detail and recently engaged with an external actuarial firm. I will set up a meeting as soon as this review is completed.
Thank you,
Ruth Green
Chief Actuary,, Blue Ocean Inc.
Telephone: 44 (0) 20 7545 9999
==
From: Edward Blue
Sent: March 28th, 2015 12:01pm
To: Geoff Olive
cc: Ruth Green
Subject: Risk factors
Remind me the risk factors within capital calculation

===
From: Geoff Olive
Sent: March 29th, 2015 7:05am
To: Edward Blue
cc: Ruth Green
Subject: Re: Risk factors

Here is the list of risk factors:

- Weather
- Mechanics
- Default rate
- Energy conversion ratio
- Counterparty

==
Online Peer-to-Peer Commerce Insurance Opportunities – 2016 Initiative
The e-mail below was sent to Ruth Green by Edward Blue:

From: Edward Blue
Sent: March 15th, 2016 11:00am
To: Ruth Green
Subject: New Product Initiative – Online P2P Insurance

Hi Ruth,
I met with our sales and marketing team last week and they had a new product idea of developing insurance targeted towards companies that engage in online peer-to-peer commerce ("sharing economy"). I think it's worth exploring this space because the sharing economy has been rapidly growing and companies such as Airbnb, an accommodation matching service, and Uber and Lyft, both

transportation network companies, have all made huge waves in the media not only due their expansive global growth, but also from their increasing critcisms and controversies, over issues such as accidents, property damage, and lack of regulations.

In order to push this initiative forward, I'd like you to assist our pricing team with the following new product development journey:

Phase 1 – Identify and brainstorm the possible insurance opportunities that can be offered to accommodation and ride-sharing services with our sales, marketing, and pricing teams, and identify the external partners and collaboration effort required and that can be leveraged for the success of the new insurance products

Phase 2 – Perform feasibility studies to understand the target market acceptance and revenue projections for the products

Phase 3 – Determine the costs associated with developing the product, launching and marketing the product, supporting the product through our online platform and customer service, and maintaining required capital

Phase 4 – Develop meaningful indicators to track the financial performance of the product throughout its life cycle, consider possible future risks with launching a new innovative product, and quantify these risks

Phase 5 – Agree on go/no-go criteria on whether to move forward with the new insurance products from concept to launch and decide on a go/no-go decision

Let me know when you would like to discuss our plan in more detail, just talk to my executive assistant and she can pen you in at our earliest convenience.

Thanks,

Ed

5A Blue Ocean P&C Company Exhibits

SOLAR ENERGY STATISTICS (SOUTHERN USA)	**Year 2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Weather Related											
Number of Rainy days	71	84	79	67	76	97	84	83	79	81	77
Number of severe weather (storms)	19	27	9	29	31	67	39	14	37	40	35
Political Support											
States with energy rebate programs	1	1	1	2	2	3	3	6	6	7	7
% of voters considered candidates record on environmental issue	1%	1%	2%	3%	5%	10%	12%	13%	15%	17%	20%
Manufacturing Base											
Number of panel provider companies	0	1	4	8	10	15	20	22	23	25	27
Number of panel manufacturers	1	1	2	3	3	4	5	5	5	6	7
Cost of photovoltaic cells (key component)	113	103	90	70	66	63	62	50	49	47	45
Energy production capacity 10sq.ft.panel (KwH)	426	679	893	951	1235	1678	1931	2391	2538	2897	3256
Components reported defective as rate per active units	10%	10%	9%	8%	10%	7%	6%	8%	6%	5%	4%
Consumer Reports											
Cost of 10khw panel system (USD 000's)	125	110	105	95	90	85	80	75	70	65	60
Number of homes with more than 1000 sq. ft. roof	45,129	55,891	67,901	75,462	105,087	129,971	145,923	170,798	189,321	190,908	195,133
Electric Company Solar energy usage											
Average purchase rate for solar energy per khw (cents)	70	85	57	87	80	105	88	65	81	85	77
% of Total grid energy that is Solar powered	1%	2%	1%	3%	3%	5%	5%	5%	6%	6%	7%

6 Big Ben Bank

Maggie Crawley, Chief Risk Officer, looked across the table. She wondered when to bring the intense ongoing debate to a close. Such forthcoming dialogue was a sought after dimension in the risk management process. However, unless the management team came up with successful ideas and effective market positions, opportunities would fade away like the morning dew. Sophisticated products and services need considerable time for development and securing commitment from partners.

Was Big Ben identifying the right risk metrics? How should the risk profile behave and evolving over time? Were they simply monitoring business intelligence or was risk information forming their decisions? How could they leverage the expertise of their insurance group, Darwin? How could they cross sell to Dynasty's high-end clientele? New regulations and scrutiny seemed never-ending.

6.1 Overview

The banking group was formed in 2001 under the directorship of Mr. Saleen Patel. Mr. Patel gained his wealth as a self-directed fund manager using fundamental asset selection and key insights into the business models of his investments. The initial focus of Mr. Patel's banking group was finding best in class funds for its high net worth (HNW) clients. Mr. Patel's fund management business was formed in 1990 and its success was primarily built within European financial centres.

A key growth differentiator, in the initial years, was Big Ben's Private Banking division, which offered exclusive concierge sevices to its HNW clients. Another competitive advantage that Big Ben enjoyed, was Mr. Patel's network of connections, that included many members of NYC, London, and Zurich high society. Mr. Patel's reputed fund management, and tax management, prowess also contributed to the success of Big Ben.

However, the financial crisis presented some unexpected challenges. The AUM fell dramatically and some of the investors experienced hardships in their own businesses. The fund performance was dramatically negative and the subsequent increase in redemptions severely impacted overall AUM and forced a revision in the strategic approach.

Products / Services

Since inception the critical profit driver has been the excess of the MER (management expense ratio) charged on the AUM over the operational costs of fulfilling the fund management mandate. Big Ben Bank is a world leader in the ETF market, and has a strong brand and a loyal investor base. But MERs for ETF's are coming under increased downward pressure as more competitors come into this fund arena.

Traditional personal and commercial banking has been a smaller, but significant, component of the revenue pie. The operational model of the personal banking division is primarily online, rather than physical branches, but expertise exists on emerging technologies and connectivity with a time-critical customer base. This approach was meant to meet the needs of a globally mobile clientele. Fund transfer and foreign exchange transactions were once the majority of transactions but the travellers' cheque business is slowing. Transfers and transactions are now dominated by an ultra-high limit VISA card program. Foreign exchange transactions and "best rates" are an attractive feature of the VISA program.

The physical distribution model is almost non-existent and cannot support broad-based banking.

Revised strategy

The executive group, following strong direction from the four partners, has been asked to re-engineer the business focus, by lowering the minimum investable assets requirement for participation in the services traditionally offered, exclusively, to the Bank's (HNW) customers, and by offering more holistic wealth management and financial planning services. As a result the holding company decided to acquire Darwin Life insurance group in 2008.

Mr. Patel articulated Big Ben's revised strategy in the following excerpt from a recent speech:
"Our vision is to be the wealth management solutions provider of choice, and to expand the Bank's cliente-base by expanding our retail banking, wealth management, and insurance division. We will also build new global platforms, to support this new growth. Our path to differentiation is to deliver a personalised and unique financial planning experience to our clients, and by building a culture of innovation."

Risk Management

Big Ben Bank has from the beginning prided itself on a strong risk culture and has had an active risk management function. The bank capital was somewhat strained, during the 2008 Financial crises, but Big Ben has regained a good capital position, in recent years.

With a greater focus on innovation-based solutions and wealth management solutions intertwined with the Insurance group, the risk management function will need to evolve and adapt its strengths to a more agile environment.

The Executive mindset has been to increase focus on the financial planning sales approach, to leverage the wealth management capabilities within insurance contracts and to formulate a one-stop shopping interface to our globally mobile clientele.

The key is still our private club; our brand; our family!!

Regulatory Challenges

The Basel Committee issued in December 2010 the Basel III rules text, which presents the details of global regulatory standards on bank capital adequacy and liquidity agreed by the Governors and Heads of Supervision, and endorsed by the G20 Leaders at their November 2010 Seoul summit.

The rules text presents the details of the Basel III Framework, which covers both micro-prudential and macro-prudential elements. The Framework sets out higher and better-quality capital, better risk coverage, the introduction of a leverage ratio as a backstop to the risk-based requirement, measures to promote the build-up of capital that can be drawn down in periods of stress, and the introduction of two global liquidity standards.

Through authorities provided in the Dodd-Frank Act, the Federal Reserve Board (FRB) regulates at the holding company level a number of companies that are primarily life insurers. The Dodd-Frank Act also authorized the FRB to supervise nonbank financial companies designated as systemically important by the Financial Stability Oversight Council (FSOC), some of which may be insurers. In addition, Section 171 (the Collins Amendment) of the Dodd-Frank Act authorizes the FRB to establish capital standards for these insurance companies.

The FRB exercised these new authorities on June 7, 2012, issuing three proposed rules which collectively implement Basel III capital standards and Section 171 of the Dodd-Frank Act.

6.2 Recent Development

Adrian Roger, Big Ben CEO, has been looking enviously at the performance of the Canadian Banks during the financial crisis. The banking industry globally suffered through a period of instability and distrust that was prevented from a run-on-the-bank scenario by the timely intervention of central banks and government led bailouts. This morning Adrian Roger was reviewing the strategic playbook of the five largest banks in Canada.

Just a week after earnings season, one would assume Canadian Banks don't have much else to say about their operations. However, the banks' current and incoming CEO's all spoke at a banking conference on Wednesday and they all laid out their growth strategies for the coming year, with the hope of luring investors.

Royal Bank of Alberta (RBAC) – after a campaign to somewhat distance the bank from capital markets, CEO John Holmes has changed his tune. Now wholesale banking, particularly in the United States, is marketed as a growth driver. There is good reason for this: Before, the capital markets division was boosted by a major trading operation. That still exists, but isn't nearly the same size. RBA, and other banks, had to scale back because of regulatory changes and new capital rules. Today, the capital markets arm is driven by lending and origination; the US lending book has doubled in size since 2008, after spending the previous eight years shrinking. Wealth management is another major focus.

Vancouver Bank (VB) – After a record quarter for its Canadian personal and commercial arm, VB hopes to replicate the success in the United States. The US economy is on the mend, and the bank's deposits south of the border are climbing. The key task now is finding people and businesses to lend to. VB's U.S. deposits total about $185 billion (USD), but its loans add up to $100 billion. The bank has done some buying to increase lending but incoming CEO Carter Lai said he will "seriously look" at other assets that become available. Expenses are another major focus.

First Bank of Manitoba – No matter how hard you push CEO Patrick Wong, he refuses to say his bank relies on one unit over another: At Manitoba Bank, it's all about diversity. Though Mr. Wong acknowledged loan growth is moderating in Canada, credit metrics such as delinquencies and loan losses are all in solid shape. Internationally, Latin America is still the major hope, but it's a long term bet Manitoba Bank isn't trying to ramp up in countries such as Columbia and Chile too quickly. Instead, it will keep offering safer products, such as auto loans, credit cards and insurance.

Bank of Toronto (BTMO) – Having just reported record quarterly earnings in Canadian personal and commercial banking, BTO's major focus is to get its U.S. equivalent firing on all cylinders. The bank recently launched a major marketing campaign in the Midwest to get U.S. households familiar with the BTO brand, and CEO John Connor hopes that will help the bank expand in urban markets. While U.S. deposit growth is healthy, "it's the commercial banking, the mid-market business that for the next couple of years is going to be the real strong source of growth", he said. In Canada, BTO is pushing to expand its retail operation.

CrownBank (CB) – Wealth management is where it's at. After buying American Investments and Pacific Trust Private Wealth Management, CB is on the hunt for more wealth management assets – particularly south of the Canadian-U.S. border. "Much of the growth that we are planning will come from the U.S.," CEO Goeff MacDonald said. CB has set a target of getting 15 percent of its earnings from wealth management, and now the bank's at the 11 per cent mark. It is also investing $134 million (CAD) – spread over many years – to revamp its retail arm's back office systems.

Laurent National Bank – Investors have long punished National for its almost singular provincial focus (Quebec) and its strength in wholesale banking. CEO Francois Boucher said recent record earnings prove he has no reason to change course. The bank's fundamentals in these areas are strong, too. Quebec has lower household debt levels than the rest of Canada, in large part because its housing markets outside of Montreal aren't too hot, so buyers don't need massive mortgages. Plus, more than half of its wholesale banking revenues come from outside Quebec, so it helps to diversify the bank's overall earnings mix.

Adrian Roger pondered his notes, and thought about the business divisions:

(1) personal and commercial,
(2) wealth management,
(3) asset management and
(4) investment banking.

Big Ben had come a long way in a short period of time. The strategy to focus on the very high net worth globally active business traveler had proven to be a wise choice. But was the growth trajectory about to slow simply because the number of potential clients in this market is small. What new services could sustain the growth of Big Ben's businesses? Were there other markets that could be penetrated by leveraging the existing operational systems and distribution to grow organically? What emerging financial crisis or regulatory changes might be a hindrance to future plans?

6A Big Ben Bank Exhibits

EXHIBIT 1
Big Ben Bank Financial Data

I. Year End Balance Sheet

Big Ben Balance Sheet

	2015 $million	2014 $million	Increase/ (Decrease) $million	Increase/ (Decrease) %
Assets				
Advances and investments				
Cash and balances at central banks	4,736	3,272	1,464	45%
Loans and advances to banks	6,598	5,206	1,392	27%
Loans and advances to customers	2,638	2,436	202	8%
Investment securities held at amortised cost	549	483	66	14%
	14,521	11,397	3,125	27%
Assets held at fair value				
Investment securities held available-for-sale	7,979	7,097	882	12%
Financial assets held at fair value through profit or loss	2,483	2,702	(219)	(8)%
Derivative financial instruments	6,793	4,786	2,007	42%
	17,255	14,585	2,670	18%
Other assets	4,392	4,074	317	8%
Total assets	36,168	30,056	6,112	20%
Liabilities				
Deposits and debt securities in issue				
Deposits by banks	6,548	5,037	1,511	30%
Customer accounts	3,758	3,699	58	2%
Debt securities in issue	6,128	4,085	2,043	50%
	16,434	12,822	3,612	28%
Liabilities held at fair value				
Financial liabilities held at fair value through profit or loss	2,160	2,268	(108)	(5)%
Derivative financial instruments	6,893	4,713	2,179	46%
	9,053	6,981	2,071	30%
Subordinated liabilities and other borrowed funds	3,272	3,116	156	5%
Other liabilities	5,152	4,938	214	4%
Total liabilities	33,910	27,857	6,053	22%
Equity	2,258	2,199	59	3%
Total liabilities and shareholders' funds	36,168	30,056	6,112	20%

II. Liquidity Risk Policy

The following data are the 3 liquidity measures the bank had used to monitor their liquidity exposures for the past 5 years (mm denotes millions).

Measure	**2010**	**2012**	**2013**	**2014**	**2015**
Liquidity Index (%)	82%	88%	89%	90%	90%
Financing Gap ($mm)	$1,050mm	$813mm	$1,392mm	$750mm	-$850mm
Net Liquidity ($mm)	-$750mm	$1,187mm	$608mm	$1,250mm	-$800mm

The bank also has a liquidity crisis plan that outlined the roles and responsibilities of each executive during a liquidity crisis. Furthermore, the plan also defined a mandatory decision-making process and communications that need to take place during the crisis. The plan also defined the criteria to trigger the liquidity crisis plan. These are the only measures or tools the bank used to manage and monitor their liquidity risk up to this point.

The bank came out from 2008 financial crisis unscratched. The bank stayed solvent and did not have severe liquidity problem and the executives of the bank are very happy with the performance of the bank after looking at these historical measures and comfortable with the current liquidity risk mitigation policy.

III. Investment Limits and triggers

Criteria	**Instructions**	**Limit per issuer**
Fixed Income	Permitted	20% of portfolio Market Value
Real Estates	Permitted	10% of portfolio Market Value
Equities	Permitted	20% of portfolio Market Value
Derivatives *	Permitted	15% of portfolio Market Value

FI Category	**Limit (% of portfolio Market Value)**
Treasury / Agency	100%
Sovereign Treasury	100%
Corporate / Credit <= B+	10%
Corporate / Credit > B+	50%

***Derivative Financial Instruments written:**

- Forward Contract
- Interest swap
- Currency Swap
- Put/Call options

7 Darwin Life Insurance Company

CEO Brandon Kaladin got to the office early Monday on a crisp cold January morning to get in a short work-out on the elliptical. Over the weekend he finally had a chance to read his favorite historian Paul Johnson's new book on the company's namesake – *Darwin: Portrait of a Genius*. On the TV monitor were NFL playoff highlights – some games went down to the wire - exciting back and forth lead changes up to the last play – and some NCAA basketball highlights of the weekend's close games and upsets. An AT&T ad had children stating obviously that two things were better than one. Brandon wondered if several dozen things were better than a few.

Brandon had a breakfast meeting with the CFO, CRO, Chief Actuary and Chief Marketing Officer at 8:00 a.m. It was a follow up to one held last September. Darwin had tremendous top line growth in its Term, Universal Life (UL) and Variable Annuities (VA) over the past 5 years. Life sales had grown at a 30% rate in an industry with flat life sales. VA sales for the industry had rebounded since the financial crisis. Darwin had not been a player pre-crisis but since the crisis VAs became attractive and reasonable. Pre-crisis, insurance companies had aggressively priced products with rich benefits by, in the view of many, by taking on too much risk. The crisis had resulted in many companies exiting or greatly reducing the benefits.

Breakfast last September was a pregame kick-off to a series of all-day meetings split into a series 30 or 45 minutes meetings to evaluate numerous initiatives and opportunities the company could pursue. These meetings were just a prelude to the business planning and budgeting activities to occur in November. A team from Dynasty visited a few weeks later. It was a good exchange during a few intense days.

Since 2011 his team had been in overdrive working on a few large initiatives. 2015 seemed to pose even more challenges. The external environment created headwinds from low interest rates to new regulations and accounting requirements to less consumer disposable income to fierce competition. There was a lot of turbulence in the industry. Since the crisis companies had been and were continuing to exit product lines and markets and shedding distribution capacity. Were they doing enough? Did the front line have enough authority and resources to do the little things? How could Darwin continue its extraordinary growth? What would be the limits of that growth? How could the company take advantage of its position to extend its reach?

Or, were they doing too much? Every time you turned around the Wall Street Journal's front-page seemed to cover yet another high-risk meltdown. No industry, especially the financial sector, was immune. Darwin had aggressive plans. Did they have a handle on the risks they were taking? One thing he did know, standing still was a risk he wasn't going to take. Brandon needed the front-line business managers to see and grab opportunities, opportunities that weren't planned for or one of their objectives at the beginning of the year.

Background

Darwin Life is a mid-size life insurer headquartered in Albuquerque, New Mexico with an increasing presence in the domestic U.S. market. Life sales are distributed primarily through an agency system and annuity sales are distributed primarily through financial institutional channels (e.g., banks and broker-dealers). Darwin has experienced an era of success since embarking on a new strategic direction under new leadership ten years ago. Success tangibly measured by growth in earnings, revenue and distribution capacity. Recent growth has been fueled by core competencies - distribution relationships and product/service development.

Prior to the strategic change, Darwin lacked focus with little to no differentiation, high costs and stagnant sales. Prior management's view was that the customer was the agent not the policy holders. There was no focus on profitability or growth. Operations lacked discipline with frequent exceptions to administrative and underwriting standards. Products included traditional whole life, level term and current assumption Universal Life (UL). Although Darwin offered fixed and variable annuities there was no focus on asset accumulation products, specifically variable annuities or distribution capacity within the financial institutional markets.

Ten years ago, new management shifted strategy to be focused on wealth management and a customer focus targeting middle to upper income individuals, professionals and small business owners with estate planning, tax-deferred accumulation, traditional income preservation and retirement income protection needs.

This strategic focus and management's solid execution through the early 2000's caught the eye of RPPC Dynasty. Dynasty thought Darwin was an attractive property and it became affordable when the market and financial industry stocks in particular, nose-dived. In hindsight the acquisition was a bargain. At the time there had been much heated debate. Darwin's focus on wealth management was a great strategic fit with RPPC's financial division – products, distribution and development.

Core product segments are universal life, high cash value traditional life and variable annuities. Non-core segments include group annuities, individual fixed annuities and term life. Darwin enhanced its universal life products to better suit the consumers' insurance, estate and business planning needs and also introduced UL with secondary guarantees.

Darwin has pursued an aggressive organic growth strategy focusing on individual life and individual variable annuities through expanding and enhancing distribution channel and sales growth. Darwin distributes life primarily through career agents, banks, and direct marketing channels. The traditional agency channel utilizes a variable cost structure with compensation incentives which promotes strong persistency. Bank-owned life insurance (BOLI) products are marketed through independent marketing organizations that specialize in the BOLI market. In 2009 they expanded annuity distribution into financial institutions. Their distribution strategy has been to add major new outlets, penetrate existing outlets and to expand the agency distribution by 2-3 regional offices per year. Both the agent and institutional distribution expansions required a significant investment.

Agent service remains important. Customer focus creates a change in perspective that is critical in administrative and underwriting practices which translate into consumer value and expected higher profits. A disciplined operation strategy was split into separate operational strategies for pricing, underwriting, investments, financial reporting, claims, reinsurance, technology, corporate governance and risk management.

Over the past decade Darwin had become an innovator in service - providing wealth management solutions to individuals - including expertise in design and distribution of tax-sheltered or tax minimizing strategies such as estate planning and small business owner succession planning. Darwin invested in technology and staff to service both the customer and distribution channels such as new administrative and reporting platforms, implemented an imaging and automated workflow system, and established a team so that a human answers the phone within four rings 95% of the time. This attention on customer focus and attention to service sets them apart from their peer group and supports an aggressive organic growth strategy.

Darwin offers a broad array of competitive products with customization for specific distribution channels. Darwin has not pursued a first to market strategy but has developed competency to be a fast follower and replicate new product designs in the market. Darwin sometimes lacks the expertise to replicate processes and infrastructure. They have invested heavily in front end distributing, issuing and processing of new business. They have built strong relationships with the agency and institutional distribution channels. Darwin utilizes a variable cost distribution structure and had a growing sales force in geographic breadth and depth.

Darwin has had high costs partly due to misaligned resources. Legacy products and systems have drained resources. As a result not enough resources have been devoted to infrastructure or in force management. Resources are devoted to new products and new business and priority placed on customer service and growth in distributions. Dedicated resources to manage in force business have been insufficient. Darwin was slow relative to its peer group in actively managing its spread compression due to low interest rates. Time constraints and lack of expertise in some cutting edge product areas resulted in less than effective back end areas including risk mitigation and management operational monitoring and reporting. Greater speed is needed to respond to business problems including risk monitoring and escalation. Operational areas are silo-based resulting in less effective collaboration and cross-functional continuous improvement processes. Darwin is moving towards a disciplined operational focus in underwriting, investments and diversified competitive products.

Darwin has solid ratings from every major rating agency – A.M. Best, Standard and Poor's, Moody's, Fitch, and Insight Ratings.

Financial Analysis

Darwin has outperformed the industry over the past 10 years regarding growth in life sales, annuity sales, equity, assets, and distribution capacity. Relative to the industry and similarly rated companies, Darwin unfavorably has higher leverage, lower interest coverage and lower liquidity and favorably has higher return on capital and lower expenses. Relative to its peer group, Darwin has had a lower operating income margin and a lower net income margin, a higher investment yield, a higher expense ratio, higher growth in life insurance in force, higher growth in equity, and average mortality and persistency.

The Market

The 55-75 age group has $7 trillion in investable assets and within a decade the 401 (k)/IRA rollover market will exceed $1 trillion per year. The shift from life protection to pre-retirement accumulation to post-retirement income protection and retirement asset management will accelerate.

As protection moves from pre-mature death to protection from longevity there are opportunities for companies with product, distribution, and service (trust, process and advice). Variable deferred annuities have transformed from tax-deferred mutual fund investments to guaranteed retirement vehicles. Protection is the differentiator versus other financial services (e.g., 85% of all variable annuity sales have living benefit riders).

Successful companies will have well positioned defensible market positions, pricing power, advanced technology and systems to enhance service and process and lower costs, operational efficiencies, experienced management, high-quality financial reporting and corporate governance, strong asset-liability management, investment and risk management, a focused and balanced growth strategy, the ability to innovate products and distribution by partnering with other services (financial planners, estate attorneys, tax experts, and healthcare advisors), and the ability to build customer relationships.

Risk Management

Darwin formalized its risk management function with the creation of an ERM Committee in 2007 followed by a new a CRO position and a Risk Management department in 2008. The Committee meets quarterly. Its purpose is to build sustainable competitive advantages by fully integrating risk management into daily business activities and strategic planning. Excerpts from its Charter charge the Committee to:

- Increase the enterprise's value through promotion of robust risk management framework/processes.
- Align risk preferences, appetite and tolerances with strategy
- Monitor Darwin's overall risk exposure and ensure risks are measured and well-managed.
- Anticipate risk exposure and recommend action where exposures are deemed excessive or where opportunities exist for competitive advantages.

The Charter also specifies the Committee's Composition, Authority, Meetings and Responsibilities.

Darwin's risk appetite statement is:

I. Capital	The probability of a 15 percent loss of Statutory equity in one year is less than 0.5 percent.
II. Earnings	The probability of negative GAAP earnings in one year is less than 5 percent.
III. Ratings	Maintain an AA financial strength rating. Maintain capital 10% above minimum AA capital requirements. Maintain an A rating on senior unsecured debt.

Risk tolerances are based on the estimated impact of quantified risks on statutory capital since the core mission is policyholder protection. Market risk, credit risk, underwriting risk, operational risk, strategic and liquidity risks are quantified using a variety of metrics to capture multiple perspectives.

Investment Policy and Strategy
The investment department manages the general account investments. The Chief Investment Officer (CIO) reports to the CFO. Investment policy and strategy is reviewed and approved by an internal management committee consisting of the CEO, CFO, CIO, and SVPs (or VPs) of its major business lines. Internal management committee decisions are subject to review by the board's investment committee. The internal management committee meets quarterly and is responsible for reviewing investment results and approving the use of new investment instruments. Day-to-day decision-making authority is delegated to the CIO, up to specified limits. The CIO may delegate approval authority to his or her subordinates. Transactions in excess of the CIO's approval limit require approval by the CEO and CFO.

The company's general account is invested primarily in fixed-income assets. Within the general account there are separate investment portfolios for each of the main product lines. Variable annuity investment accounts are held in a separate (segregated) account and are managed by a third-party investment advisor.

Risks

Credit Risk
Darwin invests in investment grade quality bonds (S&P at or above BBB-). Fixed-income securities in the general account have exposure limits at individual obligor (issuer) and sector levels. Obligor-level limits vary according to asset type and credit quality, as determined by external rating agencies. The investment department monitors compliance of the exposure limits.

For each portfolio, there are weighted average credit quality targets. Portfolio credit quality is measured by converting each asset's external credit rating into a numerical score. Scores are a linear function of credit ratings (AAA = 1, AA = 2, etc.). Sub-category ratings (i.e. + or -) are ignored in the scale. The company prefers to maintain a score above 3.5 for each line of business.

Market Risk
Semi-annually within each block of business, Darwin measures the effective duration of the assets and liabilities. If the asset and liability durations are further apart than 0.5, the asset portfolio is rebalanced such that its new effective duration equals that of the liabilities.

The VA hedging program uses a semi-static hedge updated for market factors weekly and for in force changes monthly. The key risk measures are the market greeks. Darwin currently hedges delta and rho. The program purchases derivatives so that at least 90% of liability delta and 50% rho are hedged. Existing hedges are not sold if the hedge ratio exceeds these thresholds. Gamma, vega and cross greeks are self-insured due to system complexity, the cost of hedges, the tendency of equity volatility to mean revert and other factors. Hedge effectiveness is measured using a rolling twelve-month average of program gains and losses.

Liquidity Risk
The liquidity policy requires Darwin to hold sufficient liquid assets to meet demands for cash in a liquidity crisis. One scenario considers a reputational liquidity crisis where markets continue to operate normally and the liquidity crunch affects only the company. The liquidity stress test anticipates situations where the company's ability to sell assets to meet cash needs from its liability products is hindered by the market taking advantage of the company during the crisis. Another scenario considers a crisis in which the entire market is not able to sell assets at a reasonable value.

Operational Risk
The CRO is responsible for collecting and disseminating risk information. A report is prepared monthly and distributed to executive management.

Stress Testing
Stochastic testing is supplemented with deterministic scenario-based stress tests, performed annually. Each test is applied as shocks to the model assumptions (for example, mortality, lapse and market assumptions). Interest rates have a floor of 0.10%

Additional risk factors are described in Appendix 7 Exhibit 3.

Liquidity and capital

Vin Atium's PC beeped as a new e-mail arrived. It was the agenda for tomorrow's 10 a.m. - 12 p.m. meeting. Vin was a new member of the Liquidity and Capital Committee and it would be her first meeting. A recently adopted ERM policy charged the committee with an annual review of Darwin's Liquidity Plan and Capital Plan. The recent financial crisis taught the importance of liquidity and capital - managing in normal conditions is one thing, managing in a crisis is another!

Like many companies during the crisis Darwin responded by building large cash balances far exceeding pre-crisis maximum cash limits per Darwin's Investment Policy. At its peak cash represented 10% of general account assets. Management and the Board wanted to demonstrate financial strength to policyholders, rating agencies and analysts that under no conditions would they need to sell assets at the sale prices.

Darwin had historically used standard accounting liquidity ratios to measure liquidity and a maturity ladder to analyze their ability to fund cash outflows over time. RBC was the primary capital measure. Various stress scenarios were tested although until the financial crisis the focus was on the liability side and some event such a downgrade resulting in high surrender rates. The business and financial forecasts provided by the Actuarial Reporting and Accounting departments were key tools in managing appropriate levels.

In 2008-09 she had always wondered what was the right cash level. Darwin had stopped buying new investments until its cash levels were extraordinarily high (she felt too high). However it was better that no analyst could question whether it was enough. No company wanted to be downgraded. Protecting the policyholders and Darwin's ratings was worth the cost. But if resources had been marshaled and the models had produced better information, could Darwin have demonstrated a lower cash level was sufficient? Holding cash was a costly drag on earnings due to the foregone investment income. Earnings represented future capital. Today's capital problems were created by yesterday's solution to liquidity.

In reviewing the Liquidity Plan and Capital Plan and how they were put into practice, she asked,

Were the timeframe dimensions being appropriately addressed?
Were all sources and uses of liquidity identified?
Were they using the right metrics to measure of liquidity position?
In a liquidity crisis were responsibilities, possible actions and action criteria clearly defined?
Were capital allocations and returns on capital appropriately risk-adjusted? RBC was a constraint but what was the right capital measure? Economic capital?
Were they considering the appropriate stress and what-if scenarios?

She thought Darwin's liquidity and capital management was good but could be better. However she was hesitant to ask any questions during the meeting. Being a team player meant not asking questions. Her role would be to carry out any marching orders. The Committee was evaluating a number of initiatives to improve Darwin's liquidity and capital position.

To improve liquidity and capital the agenda items included:

- Securitizing redundant term and ULSG reserves,
- Reinsuring 20 and 30 year level term
- Modifying and expanding lines of credit and other credit facilities
- Becoming a member of the Federal Loan System which provided an alternative to banks
- Changing product designs and to improve liquidity
- Revisiting capital intensive products including 15/20/30 year term, ULSG, fixed annuities and VAs - reduce Guarantees and increase Rates.
- Hedging un-hedged liabilities
- Implementing renewal/replacement product strategies

As she looked over the Agenda, she reflected:

This is a good list … Securitizations are complicated and expensive. She had to find a Memo and White Paper – it had a high level view of redundant reserves, securitization flows, costs, risks.

With no firsthand experience Darwin lacked expertise. They would have to put together the right team, a team that could identify and work through the issues … timely. What would the curve be? It would take resources from many departments to pull that off

Reinsurance was a good way to manage capital but what would the earnings trade-off be?

How do we determine the right levels for credit facilities – stress tests? Stochastic tests – what CTE?

Capital intensive products? That pretty much covers everything we sell except whole life – did they leave anything out - marketing will be super receptive …

I wonder what liabilities and hedging they have in mind?

I wonder what product strategies they are considering?

The committee wouldn't be able to push everything through the initiative and budget process. She wondered if they would only discuss what needed to be done or if they would also discuss how to make things happen.

Brandon Kaladin, CEO, had just sent out an email to the Committee regarding the agenda of this meeting:

All:
Please take note of the agenda for tomorrow's Liquidity and Capital meeting. We only have 2 hours blocked off for this meeting and it's unlikely that we'll get through each of the items. I have ordered the agenda in terms of my priority, addressing the securitization of term (and USLG) redundancies and reinsurance of term products first. Some recent effort within this committee has been spent understanding our capital positions on our wealth management lines, and as our largest in-force block that may be prudent. Tomorrow I think it's important to make sure we address our strategy on the traditional block first. I have a few thoughts in particular on our securitization strategy based on some discussions with former colleagues that I think this group will benefit from.

I look forward to our discussion.

Brandon, CEO

Prior to becoming CEO of Darwin, Brandon was the Chief Actuary for a medium-sized life insurer writing primarily Life business. He was very eager to share his experiences with his team. Vin was pondering how to address Brandon's priorities.

A New Product

Anne Kofsky, VP Life Insurance Division had made a proposal to expand the offering of life insurance product into Universal Life with Secondary Guarantees (ULSG) to appeal to the middle to upper income clientele. The proposed product introduced a market value adjustment (MVA). Initial product development efforts indicated that the product will produce a Statutory internal rate of return (IRR) at 15% which is above the hurdle rate set by the holding company. The new product design reflects general account investment supported by a portfolio of investment grade corporate bonds supplemented by interest derivatives and credit default swaps (CDS) to manage the interest and credit risk, competitive pricing in the guaranteed provisions as well as moderate assumptions in shadow account projections and a financial reinsurance agreement to reduce the onerous capital requirement.

Below is an e-mail excerpt from the CEO.

From: Brandon Kaladin, CEO
Sent: Monday, March 25 2015 7:36 PM
To: Josie Brennan, CRO
cc: Anne Kofsky, VP
Subject: Re: ULSGMVA

Anne's report on the proposed ULSG with MVA looks very promising both in terms of revenue and profit. I see the actuaries used new stochastic models with multiple interest scenarios and dynamic consumer behavior. Josie, I know your team has been involved and is still reviewing. As aggressive as our 3-year UL sales growth are I don't want to have a misfire on launching a UL product like ABC Life and XYZ which withdrew products from the market within a year after introduction. Their agents were not happy. Could you perform a more comprehensive review than usual to evaluate if the models are adequate to capture all the major risk categories and if the additional risk-taking is aligned with our risk appetite? Have you settled on new risk metrics and what will be on the risk dashboard? The target launch is still June 17.

Rating agency preparation

Before the meeting started, Becky and Stanley were discussing last night's episodes of Downton Abbey and Sherlock Holmes on PBS. Senior VP and Chief Corporate Actuary Roger Heilman entered and conducted the weekly meeting for the Corporate Department. Towards the end of the meeting Roger said, "Today I received the agenda and discussion points from Insight Ratings. They always ask for a lot. You never know what will end up being discussed so we need to be over prepared. They might not cover everything on the list but you never know. What they do discuss they grill you on so we need to be prepared. And our preparation for Insight last year was of tremendous value when Dynasty folks visited us last fall. This will be similar to last year – we need to anticipate and be able to answer 99% of what they could ask. In addition to the discussion points we will use the list I developed of additional or follow-up questions they could ask. Any questions? Good, I'd like to see everything in two weeks."

On the way back to their desks Becky and Stanley groaned. "Becky, last year's list had over 100 extremely detailed analysis items, for which none of the data was readily available." "Yeah, Stanley, nor do we have decent analytical tools to analyze the data. It's all manually intensive. The data is not standardized, it has inconsistent formatting and scattered across the four corners of the building. Last year Roger said he was going to make quality data for analysis and decision making a priority for management." He said, "well garbage in and garbage – oh we need to get something useful out." She said "we could take the resources and time spent on developing a footnote to a footnote that is buried in a file cabinet or running from crisis to crisis and devote them to material issues that would make a difference/impact."

Excerpts from Insight Ratings email and Discussion Points are in Appendix 7A Exhibit 1.

7A Darwin Life Insurance Company Exhibits

EXHIBIT 1
Rating Agency

Insight Ratings
1 Insight Drive, Capital City phone 123/555-6500 www.InsightRatings.com

March 7, 2015

Roger Heilman
Senior VP and Chief Corporate Actuary
Darwin Life Insurance Co
123 Main Street
Albuquerque, NM

Dear Roger:

The following are a list of items that we would like to discuss for our upcoming 9 am – 4 pm April 12th**,** 2015 meeting. An item of particular concern that we will spend time on will be your investment portfolio and your capital levels. With the current low interest rate environment, our rating committee is examining closely investment portfolios and the effect investment performance has and will have on earnings and capital.

As part of our year round rating process, we will look to determine the rating for the company shortly after the completion of the rating meeting and the management discussions that will follow. As a result, we would appreciate a comprehensive response to the items noted in the attachment.

If you have any questions regarding our request please call me. Please supplement this request with any additional information that you feel would be helpful to our review. In order for us to fully review your information, submit two copies of this information at least one week prior to the meeting date to allow time to review the material.

I look forward to meeting you and the management team.

Regards,

Morgan Hubbard
Financial Analyst
Life/Health Division

Below are excerpts from the Insight Ratings Discussion Points attachment.

Meeting Agenda
- Strategy Overview
- Corporate Governance and Audit Committee Update
- Business Line Review
- Individual Life
- Individual Annuities
- Distribution
- Financial Projections (split by product and by distribution)
- Investments
- Asset/Liability Management and Liquidity Investments
- Capital Management
- Enterprise Risk Management

Information Requests
- Audited (if available) 2014 Statutory and GAAP Financial Statements
- 3-year Plan: Statutory and GAAP statements
- Updated bank facility agreements
- Cash flow testing summary
- Product brochure and illustration for top selling life products, VA and fixed annuity.
- LIMRA sales information on different products; also show persistency
- Holding company only IS and BS that shows asset details
- Business with Big Ben Bank: life insurance in-force and life and annuity sales
- Profitability measures
- Retail fixed annuity and variable annuity flow information including net sales and spreads

Questions
Overview
- Review Darwin's Corporate Strategy and capital allocation in the organization.
- Review the most recent Board of Directors presentation materials.
- Discuss the synergies of Darwin's current business segments.
- Provide updates on any recent/potential acquisitions, sales or strategic affiliations.
- Discuss ventures with Big Ben Bank.
- Discuss plans for maintaining long-term top line growth (i.e. revenue) as well as plans to improve operating performance (specifically statutory earnings performance) and your capital and surplus position.
- How will Darwin maintain its competitive advantage in the market place?

Corporate Governance and Audit Committee Update
… several bullet points

Business line review

- Review marketing/business plan for the company including changes in product, market, or geographic focus/expansion.
- Discuss current business plans by line of business including current product development plans and how trends in product design and technology are incorporated.
- Discuss the impact of the current interest rate environment on your core business lines.
- Review your claims experience versus pricing assumptions.
- Discuss the company's use of mortality reinsurance.
- Discuss the pricing on fixed annuity and life products. Quantify target pricing spreads; quantify annuity gross and net spreads – historical and projected.

Distribution

- Discuss agent retention statistics
- Discuss sales promotions - quantify costs and impact on sales
- Discuss competition in the UL and VA markets
- Review your distribution channel strategy and growth plans.

Financial Projections

- Discuss any material variances including margins, direct and net premiums, expenses, benefits and commission levels.
- Provide a by-line analysis of performance/profitability including the sources of earnings.
- Discuss the company's different products including profit targets, anticipated emergence of statutory earnings, acquisition costs and sensitivities to different risk factors such as expense, interest rate, equity markets, mortality and lapse.

Investments

- Provide impairments in 2014 and 2015 YTD.
- Provide current portfolio yields and new money rates in aggregate and for different classes.
- Discuss any changes to the investment strategy.
- Review alternative assets and sub-prime mortgage / alt-A and CMBS exposures.
- Discuss developments in portfolio credit quality and expected investment related realized and unrealized losses.
- Provide your investment policies and a narrative on investment strategies. Discuss your investment strategy and any expected changes in the near term.

ALM

- Review of asset/liability management, cash flow testing/sensitivity analysis. Were there any changes to pricing assumptions because of investment performance?
- Describe the VA hedging strategy and the risks being hedged. Which risks are not hedged?

Capital Management

- Quantify the impact of redundant reserves in term (XXX) and UL (AXXX). How does the company intend to deal with the reserve strain?
- What was the reserve impact of AG 38 in 2015? Any product changes?

- Discuss securitization plans.
- Discuss the company's use of reinsurance. Any changes in reinsurance program/retention?
- Discuss capital adequacy as measured by the company and future access to capital.

Enterprise Risk Management
… several bullet points

Miscellaneous
- Update and summary of outstanding litigation, market conduct and/or compliance issues.
- Discuss any expense control initiatives.

… several additional bullet points

EXHIBIT 2
Business Intelligence

Product Comparisons
Darwin tracks market position within each business segment. Considerations include premiums paid, benefits, features, credited rates and guarantee period, other guarantees, fees, surrender charges, service, and policy cash values over time (under current assumptions and under guarantees). Competitors tracked vary by segment and product.

Distribution Capacity
Darwin tracks Agency distribution growth by number of agents, by geographic penetration, total sales by agents, sales over prior year sales for same agents banded by years of service, retention rates and training costs. Darwin tracks Institutional distribution growth by distributor count, number of wholesalers, number of appointed representatives, ranking within each partner, change in percentage share and dollar volume within each partner and number of appointed Reps.

Financial Growth
Darwin measures financial growth using the following KPIs: GAAP earnings, Statutory equity, total assets under management, life insurance sales (first year premium), variable annuity sales and fixed annuity sales, RBC ratio and debt ratio.

Darwin vs. Industry vs. Peer Group
Darwin uses the following to benchmark itself.

1. NAIC Risk Based Capital (RBC) Ratio
2. Capital Growth Sharpe Ratio
3. Financial Leverage
4. Earning Interest Coverage
5. Cash Flow Interest Coverage
6. Return on Capital
7. Expense Ratio
8. Liquidity Ratio
9. Individual Life Premium as a % of Total

EXHIBIT 3
Risk Factors

In addition to the risks outlined in the Background material in Section 7 numerous other risks include:

Risk Factors

Economic conditions may materially adversely affect our business and results of operations. The Company's strategies for mitigating risks arising from its day-to-day operations may prove ineffective resulting in a material adverse effect on its operational results and financial condition.

The development and maintenance of our various distribution systems are critical to growth in product sales and profits.

A ratings downgrade or other negative action by a rating agency could materially and negatively affect our business, financial condition and results of operations.

The Company's results and financial condition may be negatively affected should actual experience differ from management's assumptions and estimates.

The Company could be forced to sell investments at a loss to cover policyholder withdrawals

Interest rate fluctuations or significant and sustained periods of low interest rates could negatively affect the Company's interest earnings and spread income or otherwise impact its business.

Equity market volatility could negatively impact the Company's business.

The Company's use of derivative financial instruments within its risk management strategy may not be effective or sufficient.

The use of reinsurance introduces variability in the Company's statements of income.

The Company is highly regulated and subject to numerous legal restrictions and regulations. Changes in regulation may reduce our profitability and growth.

New accounting rules, changes to existing accounting rules, or the grant of permitted accounting practices to competitors could negatively impact the Company.

Financial services companies are frequently the targets of legal proceedings, including class action litigation, which could result in substantial judgments.

Changes to tax law or interpretations of existing tax law could increase our tax costs.

Companies in the financial services industry are sometimes the target of law enforcement investigations and the focus of increased regulatory scrutiny.

Litigation could result in substantial judgments against us or our affiliates.

The Company's ability to maintain competitive unit costs is dependent upon the level of new sales and persistency of existing business.

The Company's investments are subject to market and credit risks. These risks could be heightened during periods of extreme volatility or disruption in financial and credit markets.

The Company's reinsurers could fail to meet assumed obligations, increase rates, or be subject to adverse developments that could affect the Company.

Adverse capital and credit market conditions may significantly affect our ability to meet liquidity and financing needs or access capital, as well as affect our cost of capital.

The Company could be adversely affected by an inability to access its credit facility

The amount of statutory capital that the Company has and the amount of statutory capital that it must hold to maintain its ratings and meet other requirements can vary significantly from time to time and is sensitive to a number of factors outside of the Company's control.

The Company's ability to grow depends in large part upon the continued availability of capital.

The occurrence of computer viruses, network security breaches, disasters, or other unanticipated events could affect the data processing systems of Darwin or its affiliates and could damage our business and adversely affect our financial condition and results of operations.

EXHIBIT 4
Financial Data: GAAP Income Statements (in 000s)

Total	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
REVENUES						
Premium - First Year	784,780	911,720	1,077,880	1,289,710	1,594,260	2,090,450
Premium - Renewal	222,890	255,630	293,230	329,160	365,520	401,560
Total Premiums	**1,007,670**	**1,167,350**	**1,371,110**	**1,618,870**	**1,959,780**	**2,492,010**
Net Investment Income	597,270	595,330	606,450	624,430	647,770	685,240
Other income	42,050	51,360	61,150	73,190	85,850	103,940
Total Revenues	**1,646,990**	**1,814,040**	**2,038,710**	**2,316,490**	**2,693,400**	**3,281,190**
BENEFITS AND EXPENSES						
Claims	100,500	129,890	143,730	168,890	198,370	235,170
Surrender and other benefits	601,710	659,910	722,420	726,080	791,210	863,940
Inc. in reserves & S/A Transfers	588,460	695,250	835,020	1,052,600	1,320,810	1,776,940
Total Benefits	**1,290,670**	**1,485,050**	**1,701,170**	**1,947,570**	**2,310,390**	**2,876,050**
Field Compensation	83,650	100,920	119,100	138,800	161,100	193,200
Change in DAC	(49,100)	(63,270)	(75,070)	(87,090)	(100,330)	(120,350)
Total Acquisition Costs	**34,550**	**37,650**	**44,030**	**51,710**	**60,770**	**72,850**
Total Administrative Expenses	**69,280**	**77,220**	**84,090**	**91,700**	**99,740**	**107,750**
Total Benefits and Expenses	**1,394,500**	**1,599,920**	**1,829,290**	**2,090,980**	**2,470,900**	**3,056,650**
EBIT	**252,490**	**214,120**	**209,420**	**225,510**	**222,500**	**224,540**
Interest	**18,000**	**18,000**	**18,000**	**18,000**	**18,000**	**7,375**
Tax	**82,100**	**68,600**	**67,000**	**72,600**	**71,600**	**76,000**
Net Income	**170,390**	**145,520**	**142,420**	**152,910**	**150,900**	**148,540**

Variable Annuities	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
REVENUES						
Premium - First Year	561,000	669,800	812,600	1,000,000	1,280,000	1,750,000
Premium - Renewal	-	-	-	-	-	-
Total Premiums	**561,000**	**669,800**	**812,600**	**1,000,000**	**1,280,000**	**1,750,000**
Net Investment Income	73,700	85,000	98,000	119,000	142,000	175,000
Other income	25,800	33,400	40,600	50,500	61,600	76,500
Total Revenues	**660,500**	**788,200**	**951,200**	**1,169,500**	**1,483,600**	**2,001,500**
BENEFITS AND EXPENSES						
Claims	16,200	28,800	36,000	46,600	59,200	75,100
Surrender and other benefits	114,650	161,100	193,650	228,100	276,450	315,700
Inc. in reserves & S/A Transfers	474,250	536,300	649,250	807,400	1,038,000	1,464,500

Total Benefits	**605,100**	**726,200**	**878,900**	**1,082,100**	**1,373,650**	**1,855,300**
Field Compensation	30,200	38,300	46,400	56,100	69,000	90,800
Change in DAC	(13,400)	(20,900)	(24,300)	(28,500)	(36,900)	(52,300)
Total Acquisition Costs	**16,800**	**17,400**	**22,100**	**27,600**	**32,100**	**38,500**
Total Administrative Expenses	14,300	17,400	20,200	24,100	28,200	32,800
Total Benefits and Expenses	**636,200**	**761,000**	**921,200**	**1,133,800**	**1,433,950**	**1,926,600**
EBIT	24,300	27,200	30,000	35,700	49,650	74,900
Interest						
Tax	**8,500**	**9,500**	**10,500**	**12,500**	**17,400**	**26,200**
Net Income	**15,800**	**17,700**	**19,500**	**23,200**	**32,250**	**48,700**

Universal Life

	2014	**2015**	**2016**	**2017**	**2018**	**2019**
REVENUES						
Premium - First Year	58,780	72,420	89,480	106,810	125,360	145,650
Premium - Renewal	47,590	64,730	82,030	96,460	111,020	125,060
Total Premiums	**106,370**	**137,150**	**171,510**	**203,270**	**236,380**	**270,710**
Net Investment Income	110,770	106,530	105,850	109,730	114,170	121,040
Other income	5,850	6,760	8,450	9,490	9,750	11,440
Total Revenues	**222,990**	**250,440**	**285,810**	**322,490**	**360,300**	**403,190**
BENEFITS AND EXPENSES	0.36	0.35	0.36	0.36	0.36	0.36
Claims	27,300	35,290	33,930	38,090	42,770	47,970
Surrender and other benefits	32,760	32,110	36,270	41,080	45,760	51,740
Increase in reserves	92,310	120,250	152,270	182,600	214,410	246,440
Total Benefits	**152,370**	**187,650**	**222,470**	**261,770**	**302,940**	**346,150**
Field Compensation	21,450	25,220	32,200	38,500	45,100	52,400
Change in DAC	(13,000)	(16,770)	(24,670)	(31,790)	(36,830)	(41,350)
Total Acquisition Costs	**8,450**	**8,450**	**7,530**	**6,710**	**8,270**	**11,050**
Total Administrative Expenses	13,780	14,820	15,990	16,900	17,940	18,850
Total Benefits and Expenses	**174,600**	**210,920**	**245,990**	**285,380**	**329,150**	**376,050**
EBIT	**48,390**	**39,520**	**39,820**	**37,110**	**31,150**	**27,140**
Interest	-	-	-	-	-	-
Tax	**16,900**	**13,800**	**13,900**	**13,000**	**10,900**	**9,500**
Net Income	**31,490**	**25,720**	**25,920**	**24,110**	**20,250**	**17,640**

Traditional Life

	2014	2015	2016	2017	2018	2019
REVENUES						
Premium - First Year	34,000	34,000	36,400	38,500	40,200	41,700
Premium - Renewal	54,900	63,100	71,200	80,000	89,300	98,600
Total Premiums	**88,900**	**97,100**	**107,600**	**118,500**	**129,500**	**140,300**
Net Investment Income	51,200	50,500	51,700	53,000	54,500	56,700
Other income		-	-	-	-	-
Total Revenues	**140,100**	**147,600**	**159,300**	**171,500**	**184,000**	**197,000**
BENEFITS AND EXPENSES						
Claims	15,800	15,800	17,200	18,800	20,500	22,300
Surrender and other benefits	31,900	29,800	31,200	33,000	34,900	36,800
Increase in reserves	34,400	45,400	51,300	58,300	64,800	71,300
Total Benefits	**82,100**	**91,000**	**99,700**	**110,100**	**120,200**	**130,400**
Field Compensation	18,100	20,500	22,500	25,100	27,500	30,000
Change in DAC	(9,300)	(11,200)	(11,700)	(12,600)	(13,200)	(13,800)
Total Acquisition Costs	**8,800**	**9,300**	**10,800**	**12,500**	**14,300**	**16,200**
Total Administrative Expenses	9,200	10,300	10,900	11,500	12,200	12,700
Total Benefits and Expenses	**100,100**	**110,600**	**121,400**	**134,100**	**146,700**	**159,300**
EBIT	**40,000**	**37,000**	**37,900**	**37,400**	**37,300**	**37,700**
Interest	**-**	**-**	**-**	**-**	**-**	**-**
Tax	**14,000**	**13,000**	**13,300**	**13,100**	**13,100**	**13,200**
Net Income	**26,000**	**24,000**	**24,600**	**24,300**	**24,200**	**24,500**

Term

	2014	2015	2016	2017	2018	2019
REVENUES						
Premium - First Year	14,300	17,500	19,400	21,400	22,700	24,100
Premium - Renewal	44,700	52,800	63,000	73,700	84,200	93,900
Total Premiums	**59,000**	**70,300**	**82,400**	**95,100**	**106,900**	**118,000**
Net Investment Income	20,400	20,500	22,000	24,100	26,800	30,100
Other income	-	-	-	-	-	-
Total Revenues	**79,400**	**90,800**	**104,400**	**119,200**	**133,700**	**148,100**
BENEFITS AND EXPENSES						
Claims	22,900	28,600	35,900	44,200	53,000	65,200
Surrender and other benefits	400	500	500	500	500	500
Increase in reserves	10,800	11,100	12,000	13,200	14,600	15,100
Total Benefits	**34,100**	**40,200**	**48,400**	**57,900**	**68,100**	**80,800**
Field Compensation	8,200	10,800	11,700	12,600	12,900	13,100
Change in DAC	(11,200)	(12,300)	(12,600)	(12,600)	(12,000)	(11,500)

Total Acquisition Costs	**(3,000)**	**(1,500)**	**(900)**	**-**	**900**	**1,600**
Total Administrative Expenses	21,200	23,100	24,800	26,500	28,000	29,500
Total Benefits and Expenses	**52,300**	**61,800**	**72,300**	**84,400**	**97,000**	**111,900**
EBIT	**27,100**	**29,000**	**32,100**	**34,800**	**36,700**	**36,200**
Interest	**-**	**-**	**-**	**-**	**-**	**-**
Tax	**9,500**	**10,200**	**11,200**	**12,200**	**12,800**	**12,700**
Net Income	**17,600**	**18,800**	**20,900**	**22,600**	**23,900**	**23,500**

Other	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
REVENUES						
Premium - First Year	116,700	118,000	120,000	123,000	126,000	129,000
Premium - Renewal	75,700	75,000	77,000	79,000	81,000	84,000
Total Premiums	**192,400**	**193,000**	**197,000**	**202,000**	**207,000**	**213,000**
Net Investment Income	341,200	332,800	328,900	318,600	310,300	302,400
Other income	10,400	11,200	12,100	13,200	14,500	16,000
Total Revenues	**544,000**	**537,000**	**538,000**	**533,800**	**531,800**	**531,400**
BENEFITS AND EXPENSES						
Claims	18,300	21,400	20,700	21,200	22,900	24,600
Surrender and other benefits	422,000	436,400	460,800	423,400	433,600	459,200
Increase in reserves	(23,300)	(17,800)	(29,800)	(8,900)	(11,000)	(20,400)
Total Benefits	**417,000**	**440,000**	**451,700**	**435,700**	**445,500**	**463,400**
Field Compensation	5,700	6,100	6,300	6,500	6,600	6,900
Change in DAC	(2,200)	(2,100)	(1,800)	(1,600)	(1,400)	(1,400)
Total Acquisition Costs	**3,500**	**4,000**	**4,500**	**4,900**	**5,200**	**5,500**
Total Administrative Expenses	10,800	11,600	12,200	12,700	13,400	13,900
Total Benefits and Expenses	**431,300**	**455,600**	**468,400**	**453,300**	**464,100**	**482,800**
EBIT	**112,700**	**81,400**	**69,600**	**80,500**	**67,700**	**48,600**
Interest	**-**	**-**	**-**	**-**	**-**	**-**
Tax	**39,400**	**28,500**	**24,400**	**28,200**	**23,700**	**17,000**
Net Income	**73,300**	**52,900**	**45,200**	**52,300**	**44,000**	**31,600**

EXHIBIT 5
Financial Data: Statutory Balance Sheets (in 000s) and Debt

Total	2014	2015	2016	2017	2018	2019
Cash and Invested Assets	10,222,300	10,466,400	10,671,900	11,006,000	11,404,700	11,725,300
Separate Account Assets	1,878,100	2,128,200	2,515,900	3,057,800	3,777,900	4,872,200
Deferred Tax Asset	-	-	-	-	-	-
Total Assets	**12,100,400**	**12,594,600**	**13,187,800**	**14,063,800**	**15,182,600**	**16,597,500**
Statutory Reserves	11,231,200	11,716,000	12,299,000	13,160,200	14,280,300	15,856,500
Debt	225,000	225,000	225,000	225,000	225,000	75,000
Total Liabilities	**11,456,200**	**11,941,000**	**12,524,000**	**13,385,200**	**14,505,300**	**15,931,500**
Statutory Equity	**644,200**	**653,600**	**663,800**	**678,600**	**677,300**	**666,000**
RBC	338%	333%	324%	312%	306%	287%
Debt Ratio	35%	34%	34%	33%	33%	11%

Variable Annuity	2014	2015	2016	2017	2018	2019
Cash, Invested and Other Assets	365,100	457,300	459,700	532,900	608,800	687,600
Separate Account Assets	1,878,100	2,128,200	2,515,900	3,057,800	3,777,900	4,872,200
Deferred Tax Asset						
Total Assets	2,243,200	2,585,500	2,975,600	3,590,700	4,386,700	5,559,800
Statutory Reserves	2,086,200	2,417,400	2,797,100	3,398,700	4,198,300	5,385,700
Total Liabilities	2,086,200	2,417,400	2,797,100	3,398,700	4,198,300	5,385,700
Statutory Equity	157,000	168,100	178,500	192,000	188,400	174,100

Universal Life	2014	2015	2016	2017	2018	2019
Cash, Invested and Other Assets	1,929,200	2,001,900	2,102,300	2,237,100	2,406,800	2,617,100
Deferred Tax Asset						
Total Assets	1,929,200	2,001,900	2,102,300	2,237,100	2,406,800	2,617,100
Statutory Reserves	1,820,000	1,897,500	2,002,200	2,140,700	2,314,200	2,528,600
Total Liabilities	1,820,000	1,897,500	2,002,200	2,140,700	2,314,200	2,528,600
Statutory Equity	109,200	104,400	100,100	96,400	92,600	88,500

Traditional Life	2014	2015	2016	2017	2018	2019
Cash, Invested and Other Assets	936,000	966,100	1,005,700	1,050,500	1,101,500	1,158,100
Deferred Tax Asset						
Total Assets	936,000	966,100	1,005,700	1,050,500	1,101,500	1,158,100
Statutory Reserves	900,000	928,900	967,000	1,010,100	1,059,100	1,113,500
Total Liabilities	900,000	928,900	967,000	1,010,100	1,059,100	1,113,500
Statutory Equity	36,000	37,200	38,700	40,400	42,400	44,600

Term	2014	2015	2016	2017	2018	2019
Cash, Invested and Other Assets	442,000	478,800	530,000	598,600	687,600	798,700
Deferred Tax Asset						
Total Assets	442,000	478,800	530,000	598,600	687,600	798,700
Statutory Reserves	425,000	460,400	509,600	575,500	661,100	768,000
Total Liabilities	425,000	460,400	509,600	575,500	661,100	768,000
Statutory Equity	17,000	18,400	20,400	23,100	26,500	30,700

Other	2014	2015	2016	2017	2018	2019
Cash, Invested and Other Assets	6,300,000	6,312,300	6,324,200	6,336,900	6,350,000	6,363,800
Deferred Tax Asset						
Total Assets	6,300,000	6,312,300	6,324,200	6,336,900	6,350,000	6,363,800
Statutory Reserves	6,000,000	6,011,800	6,023,100	6,035,200	6,047,600	6,060,700
Total Liabilities	6,000,000	6,011,800	6,023,100	6,035,200	6,047,600	6,060,700
Statutory Equity	300,000	300,500	301,100	301,700	302,400	303,100
Corp	250,000	250,000	250,000	250,000	250,000	100,000

Debt Issuance

Issue	Issue Date	Maturity Date	Rate	Face Amount
Senior notes issue	1 Mar 2000	1 Mar 2015	8.50%	150,000
Senior notes issue	15 Jun 2010	15 Jun 2030	7.00%	75,000

EXHIBIT 6
Sensitivity Tests

Term Sensitivities (in 000s)

Baseline	**2015**	**2016**	**2017**	**2018**	**2019**
Sales	21,400	22,700	24,100	25,600	27,200
GAAP Earnings: In force	7,100	6,900	7,100	6,300	5,100
GAAP Earnings: New Business	15,500	17,000	16,400	26,200	28,000
GAAP Total Earnings	22,600	23,900	23,500	32,500	33,100
Statutory Capital	23,100	26,500	30,700	33,765	34,294
Lapse Up 15%					
Sales	21,400	22,700	24,100	25,600	27,200
GAAP Earnings: In force	7,455	7,935	8,875	8,505	7,395
GAAP Earnings: New Business	15,190	15,470	13,776	20,174	19,600
GAAP Total Earnings	22,645	23,405	22,651	28,679	26,995
Statutory Capital	22,638	25,175	27,630	28,363	26,749
Lapse Down 15%					
Sales	21,400	22,700	24,100	25,600	27,200
GAAP Earnings: In force	7,455	5,865	4,615	2,835	1,275
GAAP Earnings: New Business	15,190	16,830	16,400	26,462	28,560
GAAP Total Earnings	22,645	22,695	21,015	29,297	29,835
Statutory Capital	23,793	28,090	33,463	38,154	40,124
Sales Up 15%					
Sales	24,610	26,105	27,715	29,440	31,280
GAAP Earnings: In force	7,100	6,900	7,100	6,300	5,100
GAAP Earnings: New Business	17,825	19,550	18,860	30,130	32,200
GAAP Total Earnings	24,925	26,450	25,960	36,430	37,300
Statutory Capital	23,562	28,090	33,770	38,830	40,810
Sales Down 15%					
Sales	18,190	19,295	20,485	21,760	23,120
GAAP Earnings: In force	7,100	6,900	7,100	6,300	5,100
GAAP Earnings: New Business	13,175	14,450	13,940	22,270	23,800
GAAP Total Earnings	20,275	21,350	21,040	28,570	28,900
Statutory Capital	22,638	25,175	27,630	28,363	26,749

Variable Annuity Sensitivities (in 000s)

Baseline	**2015**	**2016**	**2017**	**2018**	**2019**
Sales	1,000,000	1,280,000	1,750,000	2,100,000	2,520,000
GAAP Earnings: In force	17,400	17,900	18,200	18,900	19,200
GAAP Earnings: New Business	5,800	14,350	30,500	39,500	50,900
GAAP Total Earnings	23,200	32,250	48,700	58,400	70,100
Statutory Capital	192,000	188,400	174,100	178,300	181,900
Market Up 15% at 31 Dec 2014					
Sales	1,000,000	1,280,000	1,750,000	2,100,000	2,520,000
GAAP Earnings: In force	24,000	25,000	25,900	27,200	28,200
GAAP Earnings: New Business	5,800	14,350	30,500	39,500	50,900
GAAP Total Earnings	29,800	39,350	56,400	66,700	79,100
Statutory Capital	232,000	230,400	218,200	224,600	230,500
Market Down 15% at 31 Dec 2014					
Sales	1,000,000	1,280,000	1,750,000	2,100,000	2,520,000
GAAP Earnings: In force	10,800	10,800	10,500	10,600	10,200
GAAP Earnings: New Business	5,800	14,350	30,500	39,500	50,900
GAAP Total Earnings	16,600	25,150	41,000	50,100	61,100
Statutory Capital	112,000	104,400	85,900	85,700	84,700
Sales Up 15%					
Sales	1,150,000	1,472,000	2,012,500	2,415,000	2,898,000
GAAP Earnings: In force	17,400	17,900	18,200	18,900	19,200
GAAP Earnings: New Business	26,700	37,100	56,000	67,200	80,600
GAAP Total Earnings	44,100	55,000	74,200	86,100	99,800
Statutory Capital	190,500	184,980	168,055	169,105	168,925
Sales Down 15%					
Sales	850,000	1,088,000	1,487,500	1,785,000	2,142,000
GAAP Earnings: In force	17,400	17,900	18,200	18,900	19,200
GAAP Earnings: New Business	19,720	27,413	41,395	49,640	59,585
GAAP Total Earnings	37,120	45,313	59,595	68,540	78,785
Statutory Capital	193,500	191,820	180,145	187,495	194,875

EXHIBIT 7
Financial Data: Inforce Statistics

Total	2014	2015	2016	2017	2018	2019
Death Benefit Inforce (in 000's)	103,119,763	105,583,877	108,447,334	120,000,000	127,697,000	134,299,000
Policy Contract Count	303,125	332,458	364,656	400,000	420,400	441,844

Variable Annuity						
Death Benefit Inforce (in 000's)	12,355,000	11,843,000	11,519,000	18,000,000	17,297,000	18,055,000
Policy Contract Count	30,053	33,058	36,364	40,000	42,000	44,100

Universal Life						
Death Benefit Inforce (in 000's)	51,830,256	54,421,769	57,142,857	60,000,000	64,800,000	69,984,000
Policy Contract Count	32,652	34,938	37,383	40,000	42,400	44,944

Traditional Life						
Death Benefit Inforce (in 000's)	28,571,000	28,571,000	28,571,000	30,000,000	32,400,000	32,400,000
Policy Contract Count	75,131	82,645	90,909	100,000	105,000	110,250

Term						
Death Benefit Inforce (in 000's)	4,807,507	5,192,108	5,607,477	6,000,000	6,600,000	7,260,000
Policy Contract Count	150,263	165,289	181,818	200,000	210,000	220,500

Other						
Death Benefit Inforce (in 000's)	5,556,000	5,556,000	5,607,000	6,000,000	6,600,000	6,600,000
Policy Contract Count	15,026	16,529	18,182	20,000	21,000	22,050