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Brown Dog Brewing Company Captive Feasibility Study

by Hannah Drake

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Why a Captive?

Brown Dog Brewing Company is a microbrewery located in Southern New Hampshire. This brewery distributes to liquor stores and restaurants in New England and New York State. Its beverages are distributed in bottles and kegs. One hundred percent of the production of its products occurs in its New Hampshire facility. Currently, Brown Dog maintains a statutory workers' compensation policy with $1,000,000 estimated loss. In the last three years, business has risen dramatically. The company plans to automate its processes to help facilitate expansion into the Midwest and the West Coast. Once these processes become automated, the company's exposure to workers' compensation losses will be greatly reduced. Currently, Brown Dog transfers its exposure to Big Boy Insurance Company through a guaranteed cost workers' compensation insurance policy. Its workers' compensation expenditures nclude a premium of $310,000, and it carries an experience modification of 0.95 on payroll of $4,300,000.

Brown Dog Brewing Company is classified as a bottling plant, which carries a higher rate than a craft brewery. In the state of New Hampshire, the Bottling Plant (2157) classification carries a 16.25 rate. After analyzing loss history and performing an actuarial analysis, Brown Dog believes that it has been misclassified and is being charged a rate more than three times higher than its actual cost of losses. Brown Dog finds that it should be carrying a rate closer to 5.00. With plans of expansion in the near future, Brown Dog expects its average annual payroll to almost double, which would result in its premium expenditure doubling as well. However, with this expansion and the implementation of automated processes, expected losses are only predicted to increase by 50 percent. Therefore, Brown Dog Brewing Company believes that it should seek alternatives for its fully insured workers' compensation program. The alternatives that it can consider include a high deductible plan within a fully insured program, a loss sensitive retrospective fully insured program, a full self-insurance program or the establishment of a captive.

Brown Dog has decided to pursue the establishment of a captive. The benefits of a captive include control, flexibility and potential cost savings. The insurance industry is currently in a soft market and there are many advantages to establishing a captive in a soft market. These include control, frictional cost, expanded coverage, stability in an unstable market, long-term reward and balance. Brown Dog executives have discussed with other craft breweries their experience with bottling plant ratings and have found that others are experiencing the same problems with their insurance companies. In addition, geographic

Preface

Hannah Drake converted my Risk Management and Insurance class into an honors course by writing a meaningful paper on a topic related to the course.

Several years ago, I, with an associate from the University of Georgia, created a semester long case study based on a fictitious micro brewery (Brown Dog Brewing Company) located in the Northeast. The case study contains 20 modules designed to track text and lecture material. Operating in teams, the class is required to apply learned material and concepts to the case company through these modules. The case study has proven to be an effective tool in assisting students to more quickly apply concepts that might be otherwise difficult to absorb.

One of the modules covers the case of the company's workers compensation exposures and the risk management alternatives to manage the risks these exposures present. Hannah, after reviewing the material, decided to develop a feasibility study for a Brown Dog captive to help the company manage its exposures in a more cost effective manner. Hannah visited with a local firm specializing in the formation and support of captives. She learned, firsthand, the mechanics of establishing and managing a captive and the structuring of expansion of the company will place additional demand for funds, encouraging the company to manage its expenses whenever possible. To examine whether a captive will be financially and/or structurally beneficial to Brown Dog, a captive feasibility study should be conducted.

Factors to Consider

There are various factors to consider when deciding the details of a captive. The first factor is the total cost of risk. The executives need to look at how costs line up with a captive versus other alternatives. Financing risk in a captive typically lowers expected costs and also leads to financial stability over the long-term, as captives aren't affected as much by the unpredictability of the insurance market. Cost savings are attributed to the elimination of profit loading and the avoidance of various insurance regulations. Risk management is also heightened, as Brown Dog's Captive is liable for the first $25,000 of all workers' compensation losses.

There are also potential tax advantages resulting from captive formation. Insurance companies utilize insurance accounting in regards to their taxes. The two principal advantages of insurance accounting include Brown Dog's ability to deduct premiums and also the deferred taxation of insurance premium, compared to the more limited tax treatment of self-insured losses. Control is another highlight of forming a captive. Executives maintain control of underwriting, rates, and forms, as well as control of claim settlements and investments. The control of rates is an attractive feature for Brown Dog. To obtain the tax benefits that a captive can provide, risk-transfer must occur. This requirement is another benefit for Brown Dog, as its risk resulting from workers' compensation claims will be better diversified.

Another factor to consider when forming a captive is the type of captives available. One can form a new single parent captive, or group captive or use a rent-a-captive. There are pros and cons associated with each of these options. A single parent captive requires the individual company to provide all of the necessary capital, but the company has the ability to control every aspect of the captive. A group captive can present a management problem, but it also has the benefit of sharing the upfront costs with other members of the group. The benefits of a rent-a-captive include all of the benefits of forming a captive without requiring the upfront investment costs and maintenance costs. Increasing frictional costs and potential under reserving for future losses, however, offset these benefits. A close look at these alternatives reveals that Brown Dog is best suited for the rent-a-captive alternative. However, we will still consider the other options in this feasibility study.

Choosing a Domicile

Various aspects in regard to the location of a domicile should be considered, regardless of the type of captive chosen. Laws, costs and tax treatment vary among locations. Characteristics of the domicile location, such as political stability, enlightened regulation, access, support services and cost, should also be considered. Political stability refers to an analysis of captive-enabling legislation. Enlightened regulation refers to the insurance regulation present in a particular location. A risk-sharing partner will only be willing to partner in a territory where regulation exists. Access refers to the proximity of the domicile in comparison to the company location. Cost refers to the minimum capitalization requirements. In a rent-a-captive, the owner of the captive pays the capital costs, but there are collateralization requirements of any renter.

Bermuda is the largest and most well-known domicile in the world. It was the first domicile location, and it continues to reap many benefits. Bermuda's business environment allows for flexibility to react to market challenges. Its geographic location

required fronting and reinsurance programs. Hannah, equipped with this information and other research, developed the feasibility study that follows.

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is beneficial due to its proximity to the United States. Offshore jurisdictions generally have lower capitalization requirements, which would be beneficial for Brown Dog.

Capital/Organizational Requirements

There are various types of rent-a-captives that can be pursued. These include individual accounts, fully funded arrangements, self-insurance wraparounds, associations or industry groups, insurance agencies and brokers, and the protected cell structure. Brown Dog is primarily interested in the Protected Cell (Segregated Account) Structure. Within this structure, there is a wall present between the multiple entities within the captive. Within the Protected Cell Company, Brown Dog will not be held liable for losses of other owners of the captive. Segregated Account Companies provide the division of business to protect assets of one account from liabilities of another.

The principal regulatory body for Bermuda is the Bermuda Monetary Authority (BMA). There are various insurance legislative requirements in Bermuda. An insurer must be registered under the Insurance Act. Every insurer must appoint and maintain a Principal Representative in Bermuda. A Statutory Financial Return must be prepared annually.

Along with these legislative requirements, Bermuda maintains capital and solvency requirements for captives as well. Brown Dog will look at a well-established rent-a-captive facility in Bermuda called XYZ Group. This group has capital and surplus of $150,000 used for regulatory purposes. XYZ Insurance Management is already authorized and regulated by the Bermuda Monetary Authority. Access to captive information for Brown Dog would be maintained and available to view online. This feasibility study would be presented to XYZ to address the appropriateness of a rent-a-captive for Brown Dog.

The rent-a-captive as a whole is considered a Class 2 company that has certain requirements that must be maintained by the XYZ group. Minimum capital is $120,000, while minimum capital and surplus is $250,000. There is also a minimum solvency margin, a liquidity ratio, filing deadlines and solvency tests that must be conducted and maintained. Information that BMA requires to be filed includes an Auditors Report, Statutory Financial Statements, Solvency Certificate, and a Declaration of Rations. Brown Dog would also need to have an actuarial review triennially.

Fronting Agreement

A captive is required to follow all insurance regulations, including maintaining a sufficient surplus to prevent insolvency. Most captive owners reinsure their exposures through an approved arrangement called fronting. Fronting entails a pair of transactions. The first is a standard insurance policy between the Parent Corporation and the fronting insurance company. The second is a reinsurance contract between the fronting insurance company and the captive.

For a start up captive, a fronting arrangement must include an AM Best “A” rated insider-fronting company. This minimum rating is needed to meet financial strength measures to issue an insurance policy for a particular risk. The fronting company will require collateral from the captive to secure its obligations.

Brown Dog will use its reinsurance program to collateralize its fronting agreement. ABC Re reinsures as well as fronts rent-a-captives. ABC Re charges Brown Dog 10 percent of gross written premiums. This fee is required for being able to use ABC Re’s paper, and it also covers premium tax that would be charged. Gross written premium for Brown Dog Brewing Company is currently $310,000 annually, but the company expects that number to grow to at least $600,000 by 2015 under its current workers’ compensation policy.

Reinsurance Program

ABC Re's Specialty Marketing Group-Captives is located in Farmington, Conn. ABC Re prides itself on its ability to provide superior underwriting support, legal oversight, financial acumen, enhanced policy issuance, claims oversight, premium audit, regulatory/compliance savvy, and an all-encompassing system. ABC Re has the financial backing and support of its parent company, Travelers, where this writer works.

To receive a quote from ABC Re's Specialty Marketing Group, the following information must be submitted: Captive Information, Program Information, Policy Forms, Underwriting Administration, Loss Information, Claims Administration and Management, Actuarial Reports, Financials, Loss Control, and Captive Entity Documents. See Appendix A for more detailed information required for submission by ABC Re to finalize a captive program quote. The basic captive structure utilized by ABC Re is illustrated in Appendix B.

Brown Dog's Captive, Black Cat, will retain about 10 percent of the minimum capital and surplus requirements. The requirement determined by the XYZ Group domiciled in Bermuda is $250,000. Therefore, Black Cat will retain $25,000. As Brown Dog gains more experience working with a captive and with risk retention, it plans on supporting a higher retention level. In five years, it will re-assess its experience and determine the appropriate amount that should be retained. ABC Re has a very well developed program in which it develops plans for each reinsurance layer. It finds reinsurance companies that are comfortable with various layers and in turn contract them to reinsure Travelers' layers. Therefore, ABC Re is not solely responsible for reinsuring our losses; all of the reinsurance companies that ABC Re contracts for our plan will support each of our layers individually.

ABC Re is most comfortable working with the working excess layer, the layer directly above the self-insured retention level. Numbers produced for each layer will not be exact until ABC Re assesses our situation and decides how the plan will work. However, this is the plan that Brown Dog would like to propose: Black Cat Captive will retain the first $25,000; ABC Re will reinsure $75,000 to cover the working excess layer; other reinsurance companies will insure $400,000 excess of $100,000, $500,000 excess of $500,000 and this plan will fulfill our statutory expected loss. Excess of this $1,000,000, ABC Re will also need to find a company to insure any catastrophic losses above $1 million. Black Cat will also have an aggregate stop loss of $500,000, $750,000, or $1 million. ABC Re will decide this based on what it feels is appropriate. This plan is illustrated in Appendix C.

FAS 113 provides standards for accounting for reinsurance. It requires reinsurance receivables and prepaid insurance premiums to be reported as assets. FAS 113 also requires a transfer in reinsurance transactions to meet conditions for reinsurance accounting. FAS 113 pays close attention to the risk transfer percentage as well as the rate-on-line for the reinsurance layer. The FAS 113 "9a and 9b" tests require that a contract create a reasonable chance of a significant loss for it to be considered insurance. While "significant" and "reasonable" have not been explicitly defined, most insurers and reinsurers use the "10/10" test as a benchmark for risk transfer testing. This test states that there must be at least a 10 percent chance of a 10 percent loss. It is for this reason that Black Cat Captive will almost immediately be marketed to other craft breweries in the United States. If the captive only insures Brown Dog, then the IRS will most likely conclude that this is really a self-insured program through a wholly owned subsidiary, Black Cat. Black Cat should begin writing another brewery at least halfway through its first year for Brown Dog to be able to reap the tax benefits of deducting premiums.

A company might consider eliminating its fronting arrangement after a substantial amount of time and experience working with a particular captive. However, the elimination of a fronting agreement for Brown Dog would become administratively burdensome for the company due to the statutory and filing requirements. Therefore, Brown Dog should plan on building a strong, long-lasting relationship with ABC Re, especially if it will consider forming a single parent captive in the future.

Conclusion

Currently, Brown Dog is paying an annual premium of $310,542.50. This premium is determined with the number of employees in three different classification rates (executive, sales, and production). There are 11 executive employees who have a Workers' Compensation rate of 0.85, 29 sales employees with a rate of 2.5, and 35 production employees with a rate of 16.25. The annual average salaries of these classifications are $80,000, $65,000, and $45,000, respectively. With the planned expansion, and thus increase in employees of all classifications, the annual premium in 2015 is expected to increase to approximately $618,875.

The classification Brown Dog believes to be incorrect is for its production employees. With Brown Dog being classified as a bottling plant, the production employees have a rate of 16.25. If Brown Dog were to be classified as a brewery, as it believes it should, this rate would be decreased dramatically, to about 5.00.

With the implementation of a captive, Brown Dog would have to initially invest $250,000 for surplus and $100,000 for an operating budget. Its net written and earned premium would equal its written premium less the fronting fee to ABC Re and the premium paid to reinsurers. This amount would be applied to its losses and general expenses.

The average Workers' Compensation claim based on its experience from years 2005–2008 was 13,262.50. The average Workers' Compensation frequency per year was 5.75. Multiplying these two variables together shows that Brown Dog's average annual Workers' Compensation claims from years 2005–2008 amounted to $76,259. By 2015, claims are expected to increase 148.45 percent to $189,467. The difference between this amount and the amount that it expects to pay if it stays with its traditional workers' compensation insurance plan is $429,408. This amount in itself is the basis behind why Brown Dog's implementation of a captive will be beneficial.

By 2015, the required surplus amount must rise due to the expansion of the brewery. However, when adding together the surplus amounts, operating budget, fronting fee, reinsurer premium, and expected losses that the captive would entail, Brown Dog's total amount would be less than the expected annual premium cost in 2015 under its traditional insurance plan. The first year of captive implementation will result in a higher cost than its traditional plan, but the amount invested in surplus and an operating budget will only have to be made in the first year. Also, by 2015 Black Cat will be writing for multiple other breweries and non-breweries that will diversify the captive, as well as benefit Brown Dog.

See Appendix E for the Black Cat Captive Income Statement and Balance Sheet for year 1. The Black Cat income statement illustrates that the direct written premium is $199,500. This is found by adding the current workers' compensation premium amount using the $5 rate ($133,000) and half of the expected amount for the non-related brewing company to be added halfway through the year. Net written premium is 75 percent of written premium due to the fronting fee payment (10 percent) and reinsurance premiums (15 percent). On the balance sheet, Black Cat has a surplus amount of $350,000, which is calculated by adding $100,000 of working capital to the $250,000 of required capital. In the first year, Black Cat will experience a loss. However, in years to come, the $100,000 of start-up expenses will not have to be added, which will benefit the captive. The net written premium to surplus ratio illustrates how leveraged Black Cat is. As of now, the captive has a very good ratio.

Appendix

Appendix A. Submission Requirements for ABC Re

Special Marketing Group Submission Information Requirements
Information required to finalize a captive program quote.

(1) Single Parent or Group Captive Information
- (a) Name and address of Insured
- (b) History of captive and/or group
  - (i) Purpose of formation
  - (ii) Description of operations
  - (iii) Number of years in existence
- (c) Prior and current structure – including lines of coverage, retention, limits, excess carriers, service companies
- (d) Marketing Strategy
- (e) Target Accounts
- (f) Projected Growth
- (g) Competition
- (h) Risk Partners

(2) Program Information
- (a) Detailed account of exposures (past and present)
- (b) Number of members
- (c) Average amount/member size
- (d) Desired coverage by line of business
- (e) Rating information by line of business

(3) Policy Forms
- (a) Current policy forms
- (b) Copies of all endorsements
- (c) Pending changes (if applicable)

(4) Underwriting Administration
- (a) Staff experience
- (b) Underwriting guide and procedures
- (c) Rating structure
- (d) Breakdown of the premium dollar-expense components

(5) Loss Information
- (a) Currently valued loss information for past 5 complete years, plus the most recent year
- (b) Hard copy loss runs for all years
- (c) Detailed description of all large losses excess of $50,000
- (d) Summary of Group data by line
- (e) Triangulated data (if available)

(6) Claims Administration and Management
  (a) TPA or Staff experience (including resumes of claims personnel)
  (b) Procedures, authority levels
  (c) Large loss strategy
  (d) Corporate philosophy of insured
  (e) Copy of claims service agreement

(7) Actuarial Reports (if available)
  (a) IBNR and loss reserve analysis
  (b) Ultimate loss projections, by line
  (c) Rate analysis and funding requirements

(8) Financials
  (a) Audited financial statements (2 years)
    (i) Captive
    (ii) Individual captive
  (b) Investment strategy
  (c) Dividend policy of the group
  (d) Description of state of domicile taxes, assessments, and fees

(9) Loss Control
  (a) Programs and guidelines
  (b) Safety manual
  (c) Copy of a specific report or survey
  (d) Copy of service agreement

(10) Captive Entity Documents
  (a) Incorporation documents
  (b) By-laws
  (c) Offering memorandum

Core Submission Information Requirements

Information required to obtain a deductible, excess of Self-Insured-Retention or reinsurance quote.

(1) Account Information
  (a) Name and address of Insured
  (b) Description of operations
  (c) Number of years in existence
  (d) Prior and current structure – including lines of coverage, retention, limits, excess carriers, service companies
  (e) Marketing Strategy
  (f) Competition

(2) Program Information
  (a) Detailed account of exposures (5 years, past and present)
  (b) Projected Growth
  (c) Desired coverages by line of business
  (d) Rating information by line of business

(3) Coverage Requirements
    (a) Current policy forms
    (b) Copies of all specialty endorsements
    (c) Pending changes (if applicable)

(4) Loss Information
    (a) Currently valued loss information for at least the past 5 years, excluding the most recent year
    (b) Hard copy loss runs for current period
    (c) Detailed description of all large losses excess of $50,000
    (d) Summary of Data by line
    (e) Triangulated data or Actuarial Report if available

(5) Claims Administration And Management
    (a) TPA or Staff experience (including resumes of claims personnel)
    (b) Procedures & authority levels
    (c) Large loss settlement strategy
    (d) Copy of claims service agreement

(6) Financials
    (a) Audited financial statements (2 Years)
    (b) Most Recent 10Q or quarterly statement

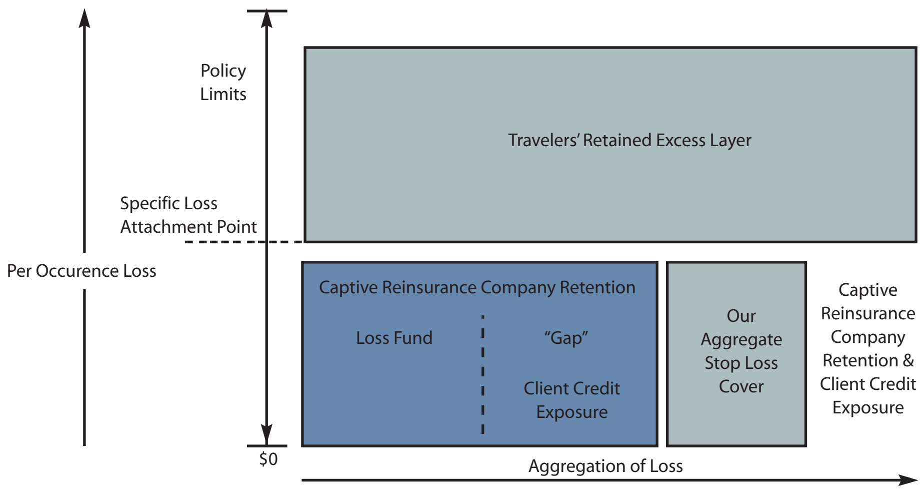
(7) Loss Control
    (a) Programs and guidelines
    (b) Safety manual
    (c) Copies of a specific reports or surveys

(8) Actuarial Reports
    (a) Ultimate loss projections
    (b) Loss review (funding analysis)

Appendix B. ABC Re Basic Captive Structure

ABC Re Captive Programs

Basic Captive Structure



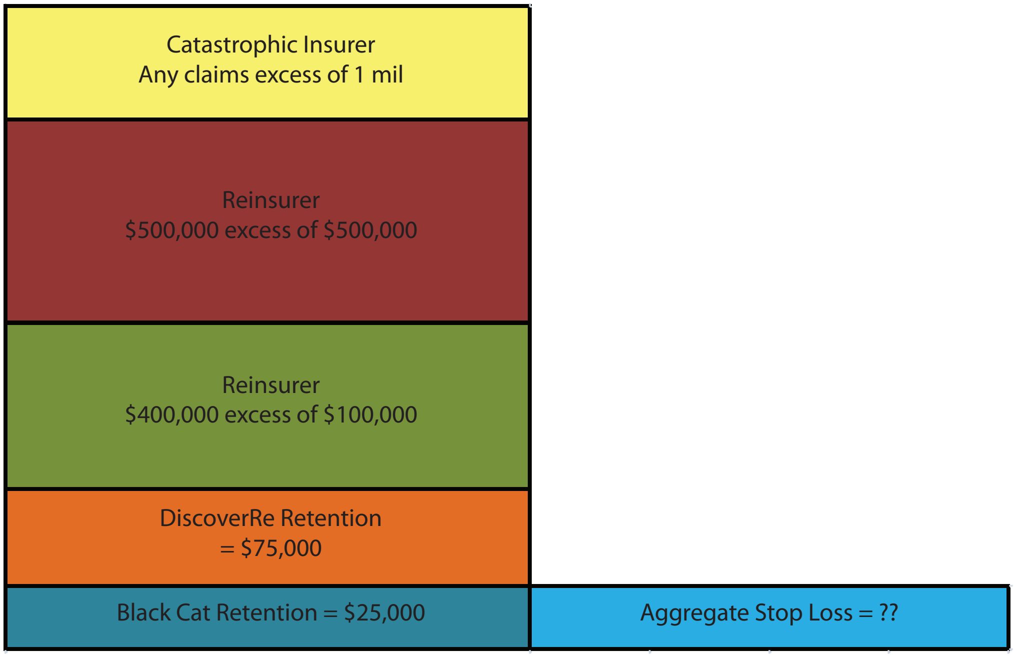
1) ABC Re issues insurance policies to insureds for full policy limits.

2) ABC Re receives premiums, retains the Excess and Aggregate loss layers for a Premium, pays insurance company expenses, and cedes the Loss Fund to the Captive.

3) Captive's retained risk includes Loss Fund, Gap and losses in excess of the Aggregate Stop Loss Cover.

This structure illustrates that a captive is responsible for covering any claims up to their Excess and Aggregate loss limits. The captive is also responsible for any losses excess of the aggregate loss layer. ABC Re retains the Excess and Aggregate layers in exchange for the premium it receives.

Appendix C. Brown Dog & ABC Re Proposed Structure



Black Cat captive's reinsurance structure illustrates that Black Cat will retain all losses up until $25,000. This is the initial 10 percent of gross written premium discussed in the Reinsurance Program section. After more companies join the captive and executives gain more experience, this amount will be increased. Excess of this layer, ABC Re and other reinsurers will cover losses.

Appendix D. Analysis of Brown Dog Claims

Preliminary Analysis of Brown Dogs Claims - ©			
Workers Compensation		23	2005-2008 total # claims
Medical Only Claims	$33,000	5.75	avg annual # claims
o 2005	$8,500		
o 2005	$10,500	$44,000	2005 average
o 2005	$25,000		
o 2006	$12,000		
o 2006	$9,000		
o 2006	$22,000	$61,500	2006 average
o 2006	$15,000		
o 2006	$3,500		
o 2007	$17,000		
o 2007	$4,500	$51,100	2007 average
o 2007	$26,600		
o 2007	$3,000		
o 2008	$7,700		
o 2008	$10,500	$22,600	2008 average
o 2008	$4,400		
	$13,263	$44,800	2005-2008 avg total annual claim amt

Average WC Claim	$13,262.50
Average WC Frequency	5.75
	$76,259.38
Claims are expected to grow from	$76,259.38
Claims are expected to grow to	$189,467.30
Percantage Increase	148.45%

PAYROLL CALCULATIONS				
Annual Payroll - 2008 - 2009				By 2015
Executive	11.00	$80,000	$880,000	$1,500,000
Sales	29.00	$65,000	$1,885,000	$3,770,000
Production	35.00	$45,000	$1,575,000	$3,150,000
			$4,340,000	$8,420,000

WORKERS COMPENSATION PREMIUM CALCULATIONS - Curr rates				
	Rates		Current	by 2015
Executive	0.85	$880,000	$7,480	$12,750
Sales	2.50	$1,885,000	$47,125	$94,250
Production	16.25	$1,575,000	$255,938	$511,875
		$4,340,000	$310,543	$618,875

WORKERS COMPENSATION PREMIUM CALCULATIONS - Brewery Rates				
	Rates		Current	by 2015
Executive	0.85	$880,000	$7,480	$12,750
Sales	2.50	$1,885,000	$47,125	$94,250
Production	5.00	$1,575,000	$78,750	$157,500
		$4,340,000	$133,355	$264,500

Appendix E. Black Cat Captive Income Statement and Balance Sheet

Black Cat Captive	
Income Statement for Current Year	
Direct Written Premium	**199,500**
Direct Earned Premium	$169,575
Net Written Premium	$152,618
Net Earned Premium	$129,725
Net Losses	
Paid	$59,025
Reserved	$25,296
Total	$84,321
LAE (Loss Adjustment Expense)	
Paid	$10,443
Reserved	$4,476
Total	$14,918
General Expenses	$129,760
Commissions	$25,935
TL&F	$3,990
Total Expenses	$258,925
Underwriting Profit(Loss)	($129,200)
Investment Income	$30,686
Net Profit Before Taxes	($98,514)
Taxes	$0
Net Profit	($98,514)

Income Statement Ratios	
Loss Ratio	**65.0%**
LAE Ratio	11.5%
General Expenses	19.5%
Commissions	13.0%
TL&F	2.0%
	111.0%

Black Cat Captive			
Balance Sheet - Beginning of Year 1			
Assets	$350,000	Unearned Premium Reserve	$0
		Loss Reserve	
		Surplus	$350,000
		Liabilities & Surplus	$350,000

Brown Dog Captive			
Balance Sheet - End of Year 1			
Investments	$200,000	Unearned Premium Reserve	$22,893
		Loss Reserves	$29,772
		Total Liabilities	$52,664
Other Assets	$104,150		
Office equip, computers, cars, etc'		Surplus	$350,000
		Retained Earnings(Loss)	($98,514)
		Final Surplus	**$251,486**
Total Assets	$304,150	Liabilities & Surplus	$304,150

Net Written Premium to Surplus Ratio at the end of the year @ Loss Ratio of		**65.0%**	**0.61**
$199,500 divided by	**$251,486**		

0.85	EP Factor
0.90	Fronting Fee
0.70	Paid Factor
0.05	Inv Rate
0.85	Reinsurance costs
100,000	Start=up Expenses
66,500	Assume one other similar Brewery written at 7/1

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