



Bickmore Risk Services

Reducing Cost of Risk

UNIVERSITY OF CALIFORNIA

ALTERNATIVE RISK FINANCING STUDY

October 2011

Submitted by



Bickmore Risk Services

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[available upon request]

I. Summary

A. Background

In late 2010, the Risk Services Department within the University of California's (UC) Office of the President initiated a feasibility study for the creation of an alternative risk financing entity, such as a captive insurance company (captive) or joint powers authority (JPA). The purpose of such an alternative risk financing entity would be to reduce UC's cost of traditional insurance, while giving it greater control over the various risks for which it is responsible. Many large public and private entities have successfully used both captives and JPAs to achieve significant cost savings and improved risk and insurance-related services. The Risk Services Department engaged UC's actuarial and risk consulting firm, Bickmore Risk Services, to conduct the study. This executive summary provides the key findings and recommendations of that study.

B. Purpose and Scope

The purpose of the study is to determine the feasibility of UC creating an alternative risk financing mechanism, such as a captive or a JPA, to efficiently manage UC's exposures. The project encompassed an in-depth review of the majority of the property and casualty loss exposures of UC and all of its related organizations. In evaluating alternative risk programs, it was determined that any alternative risk financing program must contain the following characteristics.

1. **UC-Controlled.** UC must have primary control over the coverage of key risks. This includes control over pricing, underwriting, and the assets.
2. **Competitive.** The cost of insurance to third parties (such as contractors or medical personnel) must be competitive with the commercial insurance market.
3. **Cost Effective.** The net cost to UC for covering the risks included in the proposed program must be lower than the current program.
4. **Manages Financial Risk.** The potential cost volatility of risks retained by UC must be within its risk appetite. Overall costs should be smoothed, as adverse activity in one exposure may be offset by favorable activity in other exposures.
5. **Encourages "Smart" Behavior.** UC accepts risks in order to achieve its mission. "Smart" behavior is not the same as risk-free behavior. For example, providing medical care training and constructing facilities involve risk, yet they are vital to UC's ability to continue to be a thriving and world-class university system. Underwriting and pricing can help to ensure that UC does not engage in unwarranted or unnecessarily hazardous risks.

C. Current Program

UC's current program for handling its risks is a combination of self-insurance, commercial insurance, and risk mitigation for uninsured exposures. Almost all risks associated with traditional exposures such as workers' compensation, general liability, employment practices liability, professional liability, medical professional liability, vehicle liability, and property are self-insured. However, UC does purchase catastrophic, or excess, insurance for these risks.

D. Findings

We have found that of the alternative risk mechanisms which we evaluated, forming a traditional captive insurance company as well as a risk retention group (RRG), both formed and controlled by UC, offers the most comprehensive solution to enhancing UC's current program. Specifically, the combination of a traditional captive and a RRG would address each of the goals of an alternative risk financing program, providing the following benefits.

1. **UC-Controlled:** Through a captive-RRG combination UC could exert greater control over the underwriting and pricing of its exposures.
2. **Competitive:** Given UC's control over its captive and RRG's underwriting, the captive and RRG premiums should be competitive with those in the market. Furthermore, captive and RRG expenses are generally lower than those in the insurance market, thus enhancing the competitiveness of a captive and RRG.
3. **Cost Effective:** A traditional captive and RRG would aid UC in generating net income and capital. UC currently purchases commercial insurance for a variety of exposures. Utilizing a traditional captive and RRG would allow UC to benefit financially by generating surplus, saving long-term risk funding expenses, and participating in the profits which are currently accruing solely for UC's insurers. The following financial highlights relate to a potential captive and RRG:
 - Net present value benefit of \$7.3 million (versus current program);
 - Net income after taxes of \$3.5 million over five years through risk retention and reduced commercial insurance expenditures;
 - Development of surplus in the amount of \$6.5 million over five years; and
 - Potential revenue from risk-related consulting services.

Detailed five-year pro formas are included in Appendices B and C. Appendix D contains a comparison of the captive/RRG and JPA options to the current program.

In addition, as UC retains more risk, it will develop more underwriting expertise which will encourage "smarter" behavior and help UC to better manage its risks. The full report provides a discussion of many exposures which could be covered in a captive and categorizes these exposures as high-, medium-, and low-priority for implementation.

4. **Manages Financial Risk:** UC can ensure that a captive and RRG only take on risk within UC's risk appetite through careful underwriting and managing policy terms and limits. In addition, a captive would be able to transfer money between lines of business, thus allowing UC to smooth out the natural fluctuations of costs for individual coverages. A captive would give UC the flexibility to determine the amount of financial smoothing it desires. For coverages which are currently self-insured, a captive is more expensive than the current approach. However, including more of these exposures in the captive would increase UC's ability to smooth results. For every extra \$1 million of expected losses which are included in the captive, the net cost in comparison to the current program is approximately \$200,000.
5. **Formalize Treatment of Uninsured Risks:** There are some risks that are currently uninsured by UC, such as unmanned water and air vehicles. Including these risks in a

captive would add discipline regarding the financing and underwriting associated with these risks.

6. Revenue from Consulting Services: UC's Office of Risk Services is a recognized leader in general risk management and enterprise risk management (ERM). Consulting services that could be offered for a fee by UC to associated entities include ERM, loss control, claim management, risk analysis, and other services related to managing risks of a large organization. Standard and Poor's, the national credit rating agency, cited UC's ERM as a credit strength for UC, the first time any non-financial institution received such an acknowledgement. Recently, UC was one of just five organizations to be cited by APQC, one of the world's leading proponents of knowledge management, benchmarking, and business research, for UC's best practices in ERM.
7. Broader Coverage: The captive could design various coverages necessary for its exposures and those of related entities associated or doing business with UC. This would provide it with greater control and flexibility for such risks.

The current practice of purchasing excess insurance for higher layers of coverage is very efficient and cost effective. Placing these self-insured layers of exposure into an alternative risk program would be more costly than the current method of self-insurance combined with commercial insurance for catastrophic losses.

A JPA program would have higher operating costs than the current self-insurance program, but lower costs than a captive. However, a JPA would be of limited benefit to UC, as it would not be able to cover third-party risks, and thereby enjoy the financial benefit of participating in financing these risks. We calculate the net present value financial benefit of a JPA to be approximately \$5.5 million over a five-year period, versus \$7.3 million for a captive. The only way to include current third-party risks in a JPA is to contractually change these risks into first-party risks. It is clear that this is not a solution that will work for UC. In addition, UC could not participate in TRIA through a JPA. For these reasons, the financial benefits of a captive outweigh those of a JPA. Another disadvantage of a JPA relates to the funding of medical professional liability. Medicare reimbursement is a major source of revenue for UC and funding the medical professional liability exposure in a JPA may not meet the Medicare reimbursement rules.

E. Recommendation

It is feasible to create an alternative risk financing entity that will meet the organizational objectives of UC. It is recommended that formation of a foreign captive insurance company and domestic RRG be initiated. Based on the legal analysis of McDermott, Will & Emery, a single parent captive issuing shares best fits UC's needs, since it can cover both first-party and third-party exposures (Appendix E, Option 4.A).

The development of the captive could begin immediately. It could be formed by fiscal year-end and begin providing coverage programs in phases throughout 2012.

The formation of a domestic Reciprocal RRG should also commence in the near future and be ready to provide coverage in the first quarter of 2012.

II. Alternative Financing Arrangements

A. Captive

A captive insurance company is defined as a special-purpose insurance organization designed to meet the insurance needs of its sponsors (owners or organizations that are related to its owners). Domestic companies, as well as international organizations, have created and utilized captives as a risk financing tool in their overall risk management program for decades. Captives are also used by parent companies to provide insurance to customers or affiliates of the parent organization.

Captives are commonly established in select jurisdictions or domiciles, both within the U.S. and in foreign countries. The foreign domiciles are commonly referred to as “off shore.” There are approximately 30 states which have enacted special legislation governing the formation and operation of captives. Laws regulating captives are generally less demanding than the laws that apply to conventional insurance companies.

While a special-purpose insurance company could be formed in a state without captive-friendly legislation, it would be regulated like a conventional insurer which is not a viable option. Captive legislation acknowledges and recognizes that the special-purpose insurance company is not intended to provide insurance to the general public, and therefore, it does not need conventional supervision by insurance regulators.

B. Joint Powers Authority

A JPA is an entity permitted under the laws of some states in the U.S. whereby two or more public agencies can operate collectively. JPAs are widely used in California where they are permitted under Section 6500 of the Government Code. There are approximately 150 JPAs operating in California for the specific purposes of self-insuring property and casualty risks.

A JPA is distinct from the member authorities in that it has a separate operating board of directors. The board can be given any of the powers inherent in all of the participating agencies. The authorizing agreement (usually called the Joint Powers Agreement) states the powers the authority will be allowed to exercise. The term, membership, and standing orders of the board of the JPA must also be specified. The JPA may employ staff and establish policies voted upon by the constituent authorities.

III. Captive Structure

The following is a brief description of captive structures. In addition to the discussion in this chapter, Appendix E is a letter from McDermott, Will & Emery regarding legal issues related to UC and various alternative risk programs, including captives.

A. Ownership

- Single-Parent Captives

The single-parent captive structure is the most straightforward type of captive ownership. The captive is owned 100% by a single organization and is created for the purpose of insuring some or all of the exposures of its parent and other affiliates in the corporate family. These captives are established for a variety of purposes, the most common of which is to replace or augment a self-insured program.

If UC does establish one or more captives, it should establish a single parent captive or captives. UC could use a captive to insure its own risks, either on a direct placement basis or by reinsuring the commercial insurance company that has provided the insurance policy to UC. This reinsurance arrangement could also be used for third-party exposures which have been insured by a commercial insurance company and then reinsured by the UC-owned captive.

- Association Captives

Association captives are established to insure association members. In most cases, the captives are owned by the members of the association that participate. The captive-sponsoring association may be a long-standing association providing lobbying, education, and other member services. In other cases, the sponsoring association is created solely to create a captive for a defined group of interested parties.

The federal Risk Retention Act enables the formation of a risk retention group (RRG) as a captive to insure the liability exposures of members of an association. RRG statutory provisions require that the insureds own the insurance company. RRG rules also provide that a RRG formed in one state can do business in the other states without conventional regulation by the insurance departments or regulators of those states. This eases the licensing requirements that are otherwise imposed on insurance companies attempting to do business on a multi-state basis.

This federal law allows the RRG to write insurance directly with its insureds following a process of registration in the states where it is not domiciled. UC could sponsor the establishment of a RRG and the physicians affiliated with the various UC medical schools and medical centers could become insureds of this RRG. As indicated above, the physicians must also become owners, but their contribution to surplus and voting power can be relatively insignificant. However, the single-parent ownership approach could achieve the same goals with less administrative effort.

B. Corporate Structure

There are three basic types of organizational structures used for insurance companies, including captive insurance companies.

- Stock Company

Most captive insurance companies are stock companies with ownership based on the shares of stock owned by either the parent or members of an association or the organization that has created the captive to insure the members of a related group. In some cases, the stock ownership may be issued in different classes of stock for purposes of equity ownership and/or voting privileges. As an example, an organization that is creating a captive primarily to insure its own exposures may own one class of stock. If other organizations are invited to participate in the captive they will be sold other classes of stock. This is the type of captive that UC could form to assure full control over the operations of the captive.

- Mutual Insurance Company

In a mutual, the policyholders are the owners. While this form of ownership may be consistent with the mutual mission of a group of entities, determining the participants' capital and surplus contributions and shares of accumulated equity is less defined and more likely the subject of dispute, than in a stock corporation.

- Reciprocal Insurance Exchange

A reciprocal insurance exchange is similar to a mutual in that the policyholders are the owners. Each policyholder becomes a subscriber to the exchange and the exchange effectuates coverage through a series of subscriber power of attorney agreements. Because legally it is an unincorporated association, the exchange is managed under contract by an attorney-in-fact that functions as its general manager.

Tax accounting for a reciprocal differs from that of a stock or mutual in that the profit of the exchange (called "savings") can be credited to the subscribers' accounts, which are referred to as Subscriber Savings Accounts ("SSAs"). Such allocations are merely bookkeeping entries and do not impact the capital level of the reciprocal for regulatory purposes. This ability to allocate income before paying income tax is helpful to the overall efficiency of the reciprocal. Further, the receipt of such income into the SSA of a non-profit subscriber is also tax free, whether as a credit or in cash. The receipt of this allocated income to the SSA of a for-profit organization is subject to income tax whether paid as a credit or in cash. Some reciprocals with for-profit subscribers will pay the subscriber cash in an amount of their individual tax burden and will retain the balance of the distribution to that subscriber in the SSA account which is still considered surplus for the reciprocal. A major advantage of the reciprocal is that taxable and tax-exempt organizations can be blended in the same entity with each type of subscriber receiving tax treatment in accordance with its tax status.

This type of structure could be used by UC to insure its exposures and those of its foundations, alumni associations, and support groups, most of which are non-profit organizations. When combined with a RRG, this type of insurer can be domiciled in a captive-friendly state and then do business in California as a registered RRG. The RRG will be restricted to writing liability exposures and cannot write property exposures.

C. Domicile

Captives can be domiciled in certain states or foreign countries that have adopted legislation for the regulation of special-purpose insurance companies. This legislation allows for a less stringent set of requirements and restrictions, as compared to those applied to insurance companies which sell insurance to the general public. Thirty states have adopted captive legislation. Some

states used frequently by California-based organizations with captives are Hawaii, Nevada, and Vermont. Two of the most popular foreign countries for captives are Bermuda and the Cayman Islands.

We have prepared Exhibit 1 on Page 8 to compare the specific regulations in Nevada, Hawaii, and Bermuda to provide an example of the differences between jurisdictions. Hawaii's premium tax is not assessed against premiums representing exposures located outside Hawaii, provided the state in which the exposures are located charges a premium tax. Travel costs to Hawaii for required annual meetings of the captive could offset this tax benefit. A captive manager would be able to provide exact comparisons by jurisdiction and type of coverage. For example, one domicile might be better for medical malpractice liability risks, while a different domicile would be better for construction exposures.

Exhibit 1 Captive Domicile Comparison

Domicile	Bermuda	Nevada	Hawaii																					
Supervisory Jurisdiction	Bermuda Monetary Authority (BMA) Department of Insurance Victoria Hall 11 Victoria Street Hamilton HM11 Bermuda T: (441) 292-4402 Email: insuranceinfo@bma.bm.	State of Nevada Department of Business and Industry Division of Insurance 788 Fairview Drive, Suite 300 Carson City, Nevada 89701 T: (775) 687-4270 Ext. 265 Email: jeporter@doi.state.nv.us	State of Hawaii Department of Commerce and Consumer Affairs Insurance Division - Captive Insurance Branch 250 South King Street, Suite 405 / P.O. Box 3614 Honolulu, Hawaii 96811-3614 T: (808) 586-0981 Email: captiveins@dcca.hawaii.gov																					
Domicile URL	http://www.bma.bm/insurance/	http://doi.state.nv.us/captive.aspx	http://hawaii.gov/dcca/captive/																					
# of Captives	900 (approximately)	123	162																					
Applicable Acts	Insurance Act - 1978 (effective 1/1/80) and related regulations; Companies Act 1981; 1995 amendments	NAC CHAPTER 694C - CAPTIVE INSURERS	Captive Insurance Law Chapter 431, Article 19 and Hawaii Administrative Rules Title 16, Department of Commerce and Consumer Affairs, Chapter 17 Captive Insurance Companies.																					
Registration & Incorporation Expenses	Registration Fees: \$4,200 - \$9,000 (depending on amount of capital)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Application Fee</td> <td>\$500</td> </tr> <tr> <td>License/Renewal Fee</td> <td>\$300</td> </tr> <tr> <td>Incorporation Fee</td> <td>\$75 minimum</td> </tr> <tr> <td>Application Review Firm Fee</td> <td>\$3,500 average (varies, depending on complexity)</td> </tr> </table>	Application Fee	\$500	License/Renewal Fee	\$300	Incorporation Fee	\$75 minimum	Application Review Firm Fee	\$3,500 average (varies, depending on complexity)	\$1,000 application fee License fees as follows: - \$300 Class 1 or 2 - \$500 Class 3 - \$1,000 Class 4 or 5 Outside application review fee: approximately \$3,500 (pure) to \$7,500 (association and RRGs)													
Application Fee	\$500																							
License/Renewal Fee	\$300																							
Incorporation Fee	\$75 minimum																							
Application Review Firm Fee	\$3,500 average (varies, depending on complexity)																							
Capitalization	Minimums: Class 1 (Pure): \$120,000 Class 2 (Agency): \$250,000 Class 3 (Rent a Captive): \$1M Class 4 (Reinsurance): \$100M	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Captive Type</th> <th style="text-align: center;">Minimum Capital</th> <th style="text-align: center;">Minimum Surplus*</th> </tr> </thead> <tbody> <tr> <td>Pure Captive (stock only)</td> <td style="text-align: center;">\$100,000</td> <td style="text-align: center;">\$100,000</td> </tr> <tr> <td>Association Captive (stock)</td> <td style="text-align: center;">\$200,000</td> <td style="text-align: center;">\$300,000</td> </tr> <tr> <td>Agency Captive (stock only)</td> <td style="text-align: center;">\$300,000</td> <td style="text-align: center;">\$300,000</td> </tr> <tr> <td>Rental Captive (stock only)</td> <td style="text-align: center;">\$400,000</td> <td style="text-align: center;">\$400,000</td> </tr> <tr> <td>Association Captive (mutual or reciprocal only)</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">\$500,000</td> </tr> <tr> <td>Sponsored Captive</td> <td style="text-align: center;">\$200,000</td> <td style="text-align: center;">\$300,000</td> </tr> </tbody> </table> <p>Cash or irrevocable letter of credit. Letter of credit must be automatically renewable and issued by a bank chartered in Nevada or a member of the U.S. Federal Reserve System and approved by the Commissioner.</p>	Captive Type	Minimum Capital	Minimum Surplus*	Pure Captive (stock only)	\$100,000	\$100,000	Association Captive (stock)	\$200,000	\$300,000	Agency Captive (stock only)	\$300,000	\$300,000	Rental Captive (stock only)	\$400,000	\$400,000	Association Captive (mutual or reciprocal only)	N/A	\$500,000	Sponsored Captive	\$200,000	\$300,000	<p>Class 1 (Pure captive that writes business only as a reinsurer): \$100,000</p> <p>Class 2 (Pure captive that can be a reinsurer and/or a direct writer): \$250,000</p> <p>Class 3 (An association or risk retention captive): \$500,000 (RRG); \$750,000 (Association)</p> <p>Class 4 (A protected cell): \$500,000</p> <p>Class 5 (A reinsurance captive at discretion of Insurance Commissioner: (Generally 3 to 1 ratio of net premium to capital)</p> <p>Cash, an irrevocable letter of credit issued by a bank chartered in this State or a member bank of the Federal Reserve System, a trust, public obligations as defined in section 431:6-301, or any other forms of security deemed appropriate by the commissioner.</p>
Captive Type	Minimum Capital	Minimum Surplus*																						
Pure Captive (stock only)	\$100,000	\$100,000																						
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Domicile	Bermuda	Nevada	Hawaii												
Investment Restrictions	Minimum liquidity ratio: Value of liquid assets of insurer conducting general business cannot be less than 75% of relevant liabilities unless Bermuda Monetary Authority consents.	None for pure captive; same as for other admitted insurers for association, agency and rental captives	Minimum capital requirements and surplus in excess of amounts above shall be invested in accordance with a strategic investment policy adopted and monitored by the captive insurance company's governing body and approved by the commissioner.												
Tax Issues	No local premium tax. Premium for U.S. risk may be subject to Federal Excise Tax of 4% on direct policies and 1% on reinsurance policies if captive is viewed as an insurance company for U.S. federal tax purposes.	On NET premiums written: <table border="1" data-bbox="871 430 1386 592"> <thead> <tr> <th>\$ Millions</th> <th>Direct Rates %</th> <th>Reinsurance Rates %</th> </tr> </thead> <tbody> <tr> <td>0-20</td> <td>.400</td> <td>.225</td> </tr> <tr> <td>20-40</td> <td>.200</td> <td>.150</td> </tr> <tr> <td>Over 40</td> <td>.075</td> <td>.025</td> </tr> </tbody> </table>	\$ Millions	Direct Rates %	Reinsurance Rates %	0-20	.400	.225	20-40	.200	.150	Over 40	.075	.025	On gross premiums on or before March 1 of each year (not assessed on premiums for non-Hawaii exposures): \$1-\$25M: 0.25% \$25M-\$50M: 0.15% \$50M+: 0.05%
\$ Millions	Direct Rates %	Reinsurance Rates %													
0-20	.400	.225													
20-40	.200	.150													
Over 40	.075	.025													
Reserve & Underwriting Requirements	Solvency Margin Premium Test: Classes 1 & 2: 20% of net written premiums (NWP) for first \$6M and 10% of NWP in excess of \$6M. Class 3: 20% of NWP for first \$6M and 15% of NWP in excess \$6M. Class 4: 50% of NWP and a maximum deduction of 25% of gross premium for reinsurance Solvency Margin Loss Reserve Test: 10% of loss reserves for Classes 1 & 2. And 15% for Classes 3 & 4. <ul style="list-style-type: none"> Actuarial for class 2 every three years, and annually for classes 3 & 4 Insurers must maintain "relevant" or liquid assets equal to at least 75% of their liabilities. Companies which discount their loss reserves must provide details of the methodology and rationale for discounting and an annual actuarial opinion on the discounted reserves if the captive has not met its general business solvency margin on an undiscounted basis. 	Actuarial opinion on reserves required annually	Vary; conservatively set for each company												
Financial Reporting Requirements	Class 1: Audited solvency certificate and declaration of ratios; audited financials; and certified loss reserves if discounting to meet solvency margin. Class 2: Audited solvency certificate and declaration of ratios; statutory financial statements; and audited financials. Class 3: Audited solvency certificate and declaration of ratios; statutory financial statements; audited financials annually; and certified loss reserves annually. Class 4: Audited solvency certificate and declaration of ratios; audited financials annually; and certified loss reserves annually.	Association, rental, and agency captives are required to file annual Audited GAAP financial statements and NAIC Schedules related to investments and analysis of non-admitted assets. Pure captives required to use prescribed form.	Annual GAAP financial statements and actuarial certification of loss reserves; Class 3 captives must file annual audited financial statements prepared in accordance with statutory accounting principles, as well as interim and annual statements on prescribed NAIC Forms.												

Domicile	Bermuda	Nevada	Hawaii
Local Office Requirements	<p>A company must be registered under the Act before it can carry on business in Bermuda.</p> <p>Every insurer must appoint and maintain a Principal Representative in Bermuda. The Principal Representative is a corporation or individual who is resident in Bermuda and who can represent the company.</p>	<p>Principal place of business in NV.</p> <p>Board of directors must hold an annual meeting in Nevada.</p> <p>Establish accounts with a bank located in Nevada.</p> <p>Nevada resident must be listed as the resident agent.</p> <p>Captive must contract with a CPA or a nationally recognized CPA firm, approved by the Commissioner.</p> <p>Captive must employ or contract with actuaries to review and evaluate its operations, and also retain a Nevada licensed attorney, who is experienced in Nevada law.</p>	<p>The board of directors must conduct at least one annual meeting in Hawaii.</p> <p>The principal office and books and records must be in Hawaii.</p> <p>Use of local management company and lawyer is advised.</p> <p>A resident agent must be appointed to act on its behalf for receipt of service.</p>

D. Reinsurance and Fronting

- Reinsurance

The terms reinsurance and fronting are common terms in the insurance industry. Reinsurance refers to arrangements through which commercial insurers transfer (reinsure) a portion of the financial exposure on risks they have underwritten. This reinsurance may be on a “quota share” basis in which the reinsurer shares a percentage of each loss and the premium collected by the primary insurer. The other common form of reinsurance is an “excess-of-loss” arrangement whereby the reinsurer participates after a threshold amount of loss or losses have been exceeded.

As examples of each of these, with a “quota share” reinsurance arrangement at 50%, the reinsurer will pay 50% of each and every loss. If the primary insurer suffers total losses of \$1,000,000, it will receive \$500,000 from the reinsurer. Under “excess-of-loss” reinsurance, if the loss is \$1,000,000 and the primary insurer retains only \$250,000, the reinsurer contributes \$750,000 to this loss.

In reinsurance arrangements between commercial insurers which are rated by A. M. Best and other agencies, and which are fully regulated by the various states, the primary insurer usually does not require the reinsurer to provide financial collateral in an amount equivalent to the amount of loss the reinsurer is assuming.

- Fronting

Fronting is a type of reinsurance transaction that occurs between a commercial insurer that is fully regulated by the local department of insurance and a captive insurance company (typically licensed only in its domicile). In a fronting arrangement, the commercial insurer assumes the risks and issues the policies and the captive insurance company accepts, or reinsures, a portion of the risk.

Captive insurance companies generally do not receive financial ratings by A.M. Best or other rating agencies during the early years of existence and are subject to special legislation in their states of domicile. As a result, the captive/reinsurer must post financial collateral (in an amount approximately equivalent to the amount of potential loss the reinsurer may have to pay over a period of time, usually the policy year) in order for the commercial insurer to receive regulatory credit for having transferred risks to the captive/insurer. The collateral usually takes the form of an irrevocable bank letter of credit or captive assets sequestered in a reinsurance trust. In either case, the beneficiary is the commercial carrier.

In situations where the type of insurance does not lend itself to an amount closing at the end of each policy year, the collateral requirement is compounded, such that several years of potential loss may have to be collateralized. This type of insurance pertains to most forms of long-tailed liability insurance, where the amount of the claim is not determined for several years after the event has occurred, or the claim has been reported.

A UC-sponsored captive would take several years to obtain an A.M. Best’s rating due to a “seasoning” requirement. As a result, the UC captive would need to post collateral to cover those reinsured exposures. While this creates additional costs in the short term for collateral expenses, the achievement of a Best’s rating may eliminate the need for collateral.

IV. Joint Powers Authority

The following is a brief description of joint powers authority (JPAs). In addition to the discussion in this chapter, Appendix E is a letter from McDermott, Will & Emery regarding legal issues related to UC and various alternative risk programs, including JPAs.

A. Statutory Authorizations

Known and cited as the Joint Exercise of Powers Act, the first paragraph of this Section defines “public agency” as follows:

“A “public agency” includes, but is not limited to, the federal government or any federal department or agency, this state, another state or any state department or agency, a county, county board of education, county superintendent of schools, city, public corporation, public district, regional transportation commission of this state or another state, or any joint powers authority formed pursuant to this article by any of these agencies.”

Section 6502 provides that *“if authorized by their legislative or other governing bodies, two or more public agencies by agreement may jointly exercise any power common to the contracting parties, even though one or more of the contracting agencies may be located outside this state.”*

Section 6516.5 provides that a JPA *“may create risk pooling arrangements for the payment of general liability losses incurred by participants and exhibitors in fair sponsored programs and special events users of fair facilities.”* While this provision does not directly address liability exposures faced by UC, it specifically suggests that future modifications may be available to address UC exposures such as the Tenant Users Liability Insurance Program (TULIP).

Section 6516.7 explains situations where one or more private entities can join with one or more public agencies to enter into a JPA to form an insurance pooling arrangement for the payment of tort liability losses. The private entities need not be non-profit entities. This section is restricted to agencies and entities that provide child care or operate child day care facilities. This again is an example of how future modifications could more directly address the needs of UC.

Section 6516.9 directly addresses UC and other public educational institutions. This section allows for the formation of a JPA by one or more public agencies and one or more non-profit corporations or auxiliary organizations operating facilities, programs, or events at UC. The JPA may establish and administer as many separate risk-pooling arrangements as it deems desirable. A liability risk-pooling arrangement established pursuant to this section also may provide for the payment of losses incurred by special events users, lessees, and licensees of facilities operated by non-profit corporations, auxiliary organizations, or UC and also for the payment of losses incurred by employees, participants, and exhibitors in programs sponsored by those entities.

B. Formation and Participation

UC and one of its non-profit organizations could form a JPA. From this nexus, membership in and coverage from the JPA can be extended to all other affiliated organizations of UC. The risks of UC and all of the permissible JPA members can be covered by the JPA.

In addition to the direct risks of the affiliated organizations and UC, the JPA would also have the flexibility to underwrite the contractual risks which UC and all of its affiliated organizations have accepted. These contractual risks could extend to tenant users of UC facilities, Tuition Reimbursement, Consultants Professional Liability, and surety and performance bonds associated with construction projects.

C. Restrictions

The main restriction with a UC JPA is that it can only cover UC first-party risks. There are virtually no other restrictions with respect to such first-party UC risks which could be placed in the JPA. There are, of course, common sense restrictions in terms of the limits of protections expected from the JPA in that commercial insurance should still be purchased for risks with high severity loss potential and for which insurance premiums are relatively small. The JPA should cover those exposures which are reasonably predictable, considered to have low severity potential, or are more cost effective to include than to purchase commercial insurance coverage.

D. Captive Insurance Companies Owned by JPAs

Once a JPA is formed it has the authority to own a captive insurance company as illustrated by two JPAs, Beta Healthcare and Alliance of Schools for Cooperative Insurance Programs (ASCIP), which have formed captives. This authority comes from the opinion that UC has the right to own an insurance company, as suggested in a memo from a law firm engaged by UC in 2008 to review the question of ownership of a captive insurance company. The JPA takes on the authority that each JPA member has independent of the JPA.

Beta Healthcare (formerly Program Beta) is a California JPA established in 1978 to provide medical malpractice liability insurance for public entity hospitals. Later, it established a group captive domiciled in Hawaii, initially formed as a mutual RRG and subsequently converted into a reciprocal RRG. While Program Beta's ownership is represented by a significant contribution to the RRG's surplus (80% of the surplus), it is not a stockholder. The RRG provides medical malpractice insurance to for-profit and non-profit 501(c)(3) entities that are not publically owned. The RRG, which is controlled by the JPA, is owned by its 61 policyholders comprised of 19 hospitals and 42 medical groups.

ASCIP is a JPA formed to provide insurance to public school districts in Los Angeles County. It directly owns the Captive Insurance Company for Public Agencies. This captive was formed approximately six years ago and is also domiciled in Hawaii. This captive was developed to reinsure the commercial insurance company which provides an Owner Controlled Insurance Program (OCIP) program for the school districts.

V. Tax Implications

A captive or JPA may be subject to the following taxes and it may facilitate favorable tax treatment for the participants in the program.

A. Excise Taxes

Federal excise taxes are payable on insurance premiums paid to a foreign insurance company. A captive in Bermuda or the Cayman Islands is a foreign insurance company. This tax is 4% of direct premiums and 1% of reinsurance premiums. At the 4% level, this tax is significant. A way to avoid this tax is for the captive to elect to become a U.S. taxpayer under Internal Revenue Code section 953(d). Under a reinsurance arrangement, this tax can also be avoided through this election. A JPA would not be subject to this tax because it would be a California entity. In the structure we are proposing, UC would pay no excise tax on exposures retained by the RRG, and UC would pay either 1% or 4% excise tax on exposures retained by the traditional captive, depending on whether the captive writes the exposures directly or reinsures them.

B. Premium Taxes

The insurance regulations in states that have adopted captive laws provide for a nominal amount of premium tax. In most cases this tax is intended to pay the state's cost of regulating the captive. This tax ranges from 0.25% to 5%. In Hawaii, the tax applies to premium for exposures in Hawaii. Premium for exposures outside of Hawaii is tax-exempt if it has been taxed by another jurisdiction. In a fronting arrangement, the fronting insurer pays state premium taxes where the exposures are located.

The regulators in all states make every effort to assess a premium tax on premiums written for exposures within their state. This premium tax ranges from 2% to 5%. Where a captive program is fronted by a licensed insurance company, the fronting company is responsible for paying the appropriate premium tax. This cost is passed on to the captive program.

For a RRG, which can legitimately do business in states beyond its domiciliary state, it must pay premium taxes on exposures written in these other states. A JPA is not subject to any of these taxes. In the structure we are proposing, UC would pay a 3% premium tax to the state of California.

C. Income Taxes

A captive, as a separate corporation, could be taxed on its underwriting and investment income regardless of the tax status of its parent organization. Captive insurers are permitted to deduct incurred but unpaid losses as a reserve in calculating taxable income. Captives have some control over their taxable income. First, by setting premiums rates in direct relationship to the combination of forecasted losses and budgeted expenses, underwriting income can be minimized. Second, by using tax-advantaged investments, taxable income can be reduced. In the structure we are proposing, UC would pay income tax on exposures retained by the RRG. UC would also pay income tax on exposures that are retained by the traditional captive but which are not related to UC. A JPA is not subject to income taxes.

D. Tax Deductibility of Insurance Premiums

One of the advantages offered by captive insurance companies, particularly captives that insure a number of different organizations, is the tax deductibility of premium paid to the captive. This is an advantage to those organizations that pay federal or state income tax.

UC and most of its affiliated organizations are governmental instrumentalities or non-profit organizations so they do not pay income tax.

To the extent there are tax-paying participants in the JPA, the premiums (contributions) paid to the JPA would be considered tax deductible.

E. Self-Procurement Taxes

Most states have a “self-procurement” (also called a “direct placement”) tax which levies the equivalent of a premium tax on an organization that purchases insurance from an unlicensed, unregulated insurer. This tax is generally payable even if the unlicensed, unregulated insurer is a single parent captive. The amount of the tax is usually equivalent to the surplus lines premium tax in the state. California has this self-procurement tax built into the combination of the Insurance Code and the Revenue and Tax Code. These sections provide that an Industrial Insured, as defined in the Insurance Code, can buy insurance without the restrictions contained in the Surplus Lines portion of the Insurance Code. However, the Revenue and Tax Code provides that all transactions from the Surplus Lines section of the Insurance Code will be taxed at 3% of premiums. While this self-procurement tax will be applied to premiums flowing to a captive, the contributions to a JPA are not subject to this tax.

VI. Cost Comparisons

This section contains comparisons of the assumptions and costs associated with the current program, a potential captive, and a potential JPA.

A. Assumptions and Program Structure

For purposes of keeping the comparisons consistent, we are basing all cost elements on a structure which would insure the following hypothetical coverage and limits.

Excess Layers of Selected Traditional Risk

The lower layers of these risks are currently self-insured by UC. We have assumed that these will remain self-insured, but that a captive or JPA would insure the following excess layers above self-insured retentions (SIRs).

- Workers' Compensation: \$5,000,000 excess of a \$5,000,000 SIR
- Hospital Professional Liability: \$5,000,000 excess of a \$5,000,000 SIR
- Employment Practices Liability: \$5,000,000 excess of a \$5,000,000 SIR
- General Liability: \$7,500,000 excess of a \$2,500,000 SIR
- Auto Liability: \$7,500,000 excess of a \$2,500,000 SIR

The discounted value of losses in these layers is \$4,538,000. We have assumed that the current premium paid for these layers is based on a loss and loss adjustment expense (LAE) ratio of 90%. This is similar to the ten-year industry loss and LAE ratio of reinsurance contracts as reported in A.M. Best's 2010 Aggregates and Averages.

Excess workers' compensation exposures would be written directly by the traditional captive. Excess liability coverages would be written directly by the RRG, and 95% would be reinsured by the captive on a quota share basis.

Primary Layers of Selected First-Party Risks

We have also considered several first-party risks which are currently fully insured. We have assumed that these would be included in either a UC JPA or captive.

- *Foundations, Alumni & Support Groups (FAS)*: Assumes \$1,150,000 in annual premiums, with a loss ratio of 40%. UC's captive would cover 100% of the risk and would not use a fronting insurer. Current annual premium is approximately \$1,154,000 and reported losses to-date of less than \$35,000.
- *Marine*: Assumes \$210,000 in annual premium, written directly by the captive, with a loss ratio of 40%. UC would cover 100% of this risk and would not use a fronting insurer. Current annual premiums are \$210,000 and there have been annual losses of about \$70,000 over the past seven years.

Other Selected Risks

We have assumed that there are several additional risks currently fully insured which could be partially reinsured through a captive. These include Tenant User Liability Insurance Program (TULIP), Campus Connexions (ex Foundations, Alumni & Support Groups or FAS), and Builders Risk, all of which are third-party exposures and would not be eligible to be covered by a JPA.

These exposures would be included in the traditional captive through reinsuring a fronting company. Cyber liability could be placed in a JPA. However, doing so would mitigate its effectiveness in establishing and enforcing policies and procedures to prevent these types of claims. Therefore, we have assumed that it would not be included in a JPA if one were established. Cyber liability could be written directly by the RRG and then reinsured by the captive.

- *TULIP*: Assumes \$150,000 in annual premiums, a fronting fee of 10%, a loss ratio of 40%, and 80% coverage by UC. This is based on total premium of \$126,000 for the ten months of September 2009 through June 2010, and no reported losses.
- *Campus Connexions (ex FAS)*: Assumes \$700,000 in annual premiums, a fronting fee of 10%, a loss ratio of 40%, and 80% coverage by UC. This is based on current annual premium of \$600,000 with potential for significant growth and negligible reported losses.
- *Builders Risk*: Assumes \$750,000 in annual premiums, a fronting fee of 10%, a loss ratio of 40%, and 80% coverage by UC. This is based on a deposit premium of \$375,000 for the six months ending August 2010 and negligible reported losses.
- *Cyber Liability*: Assumes \$525,000 in annual premiums, a fronting fee of 10%, a loss ratio of 40%, and 80% coverage by UC. This is based on current annual premium of \$512,000 and negligible reported losses.

The following chart provides an overview of the risks included in this study.

<u>Excess Layers of Traditional Risks</u>	<u>1st Party Risks</u>	<u>Other Risks</u>
<ul style="list-style-type: none"> • Currently fully insured • Would be covered in Captive or JPA 	<ul style="list-style-type: none"> • Currently fully insured • Would be covered in Captive or JPA 	<ul style="list-style-type: none"> • Currently fully insured • Reinsured by captive • Not Included in JPA because they are third party risks or benefit from fronting company
<ul style="list-style-type: none"> • Workers' Compensation \$5M x \$5M • Hospital Professional Liability \$5M x \$5M • Employment Practices Liability \$5M x \$5M • Auto Liability \$7.5M x \$2.5M • General Liability \$7.5M x \$2.5M 	<ul style="list-style-type: none"> • Foundation, Alumni, & Support Groups (\$1M/occurrence) • Marine (\$5M/occurrence) 	<ul style="list-style-type: none"> • TULIP (\$1M/occurrence) • Campus Connexions ex FAS (\$1M/occurrence) • Builders Risk (\$1M/occurrence) • Cyber Liability (\$3M/occurrence)
Requires \$1.5M in capital	Requires \$500,000 in capital	Requires \$1M in capital

The capital required for a captive or JPA could come from a variety of sources, including the existing UC self-insured trusts or a loan. A portion of the capital required may also be fulfilled by a letter of credit. In the pro formas we have assumed that the required capital would come from the existing trusts.

Consulting Revenue

We have assumed that a JPA or captive would generate roughly \$100,000 in annual fees for risk consulting services provided to non-UC entities

B. Start Up Costs

The following are the startup costs associated with each of the alternatives. Bermuda was selected for demonstration purposes only and should not be considered the recommended domicile.

COST ELEMENT	CAPTIVE	RRG	JPA
Legal Fees	\$30,000	\$30,000	\$20,000
Registration Fees	1,235	1,235	0
Consulting Fees for Approval Process	30,000	30,000	10,000
Insurance Policy Design	10,000	10,000	10,000
Travel	5,000	5,000	0
Consulting Fees to Select Manager	15,000	15,000	15,000
TOTAL	\$91,235	\$91,235	\$55,000

C. Annual Expenses

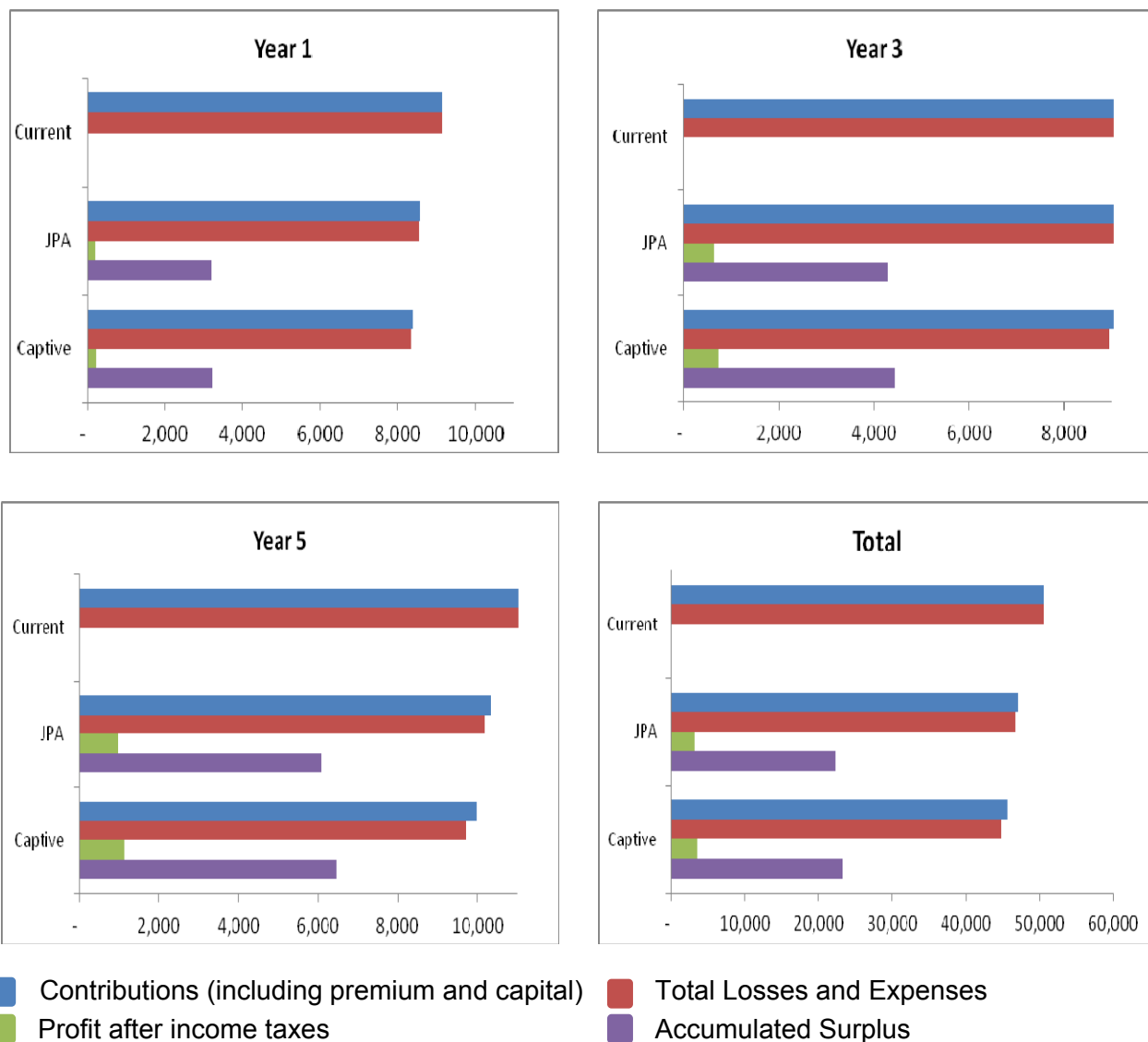
The following are additional costs and fees which would apply to each of the alternatives on an annual basis:

COST ELEMENT	CAPTIVE/RRG (combined)	JPA
Management/Program Administration	\$150,000	\$100,000
Claims Auditing	20,000	20,000
Actuarial Services	20,000	20,000
Legal Costs	40,000	20,000
Board of Director Meetings	40,000	1,000
State Licensing Fee	6,000	0
Financial Audit/Tax Return	25,000	20,000
Payroll Audit	10,000	10,000
Fed. Excise & Premium Tax	324,000	0
Cost of Security	2,000	0
Fronting Fees	122,000	0
TOTAL	\$941,000	\$191,000

Section IX herein discusses the pro forma financial statements which are contained in the appendices of this report. All of these pro formas use the same loss forecasts for the core exposures as described at the beginning of this Section. One of these pro formas is for a captive, one is for the JPA alternative, and the final is for the current program.

D. Overview of Results

The following are key financial figures (\$000) from the pro forma financial statements presented in Appendices B, C, and D. These figures support the captive option. The captive requires less contributions (\$1.6 million less than the JPA and \$4.9 million less than the current program), and it generates more surplus than either other option (\$0.4 million more than the JPA and \$6.5 million more than the current program). Another added value of the captive over a JPA is the ability to insure third-party exposures.



The development of either a captive or a JPA will permit the marketing of UC's risk management services to organizations that could benefit from UC's considerable risk management expertise.

VII. Insurance Programs for Consideration

The following table lists the various insurance programs currently maintained by UC for its exposures to loss and the exposures of its affiliated and related organizations and students. These are all considered opportunities for alternative risk financing arrangements.

University Of California Alternative Financing Opportunities

Item	EXPOSURE OR PROGRAM	FIRST OR THIRD PARTY EXPOSURE	ALTERNATIVE FINANCING ARRANGEMENT AVAILABLE ¹	PRIORITY LEVEL 5 = high 1 = low	IMPLEMENTATION SCHEDULE OF 6, 12, OR 24 MONTHS
A	Excess Hospital Professional Liability, General Liability, and Auto Liability	First	JPA or Captive/RRG	5	12 for excess layers
B	Excess Employment Practices Liability	First	JPA or Captive/RRG	5	12 for excess layers
C	Excess Workers' Compensation	First	JPA or Captive Insurance	5	12 for excess layers
D	Part-Time Faculty and their medical groups	Third	Captive/RRG	5	12-24 This would permit greater scope of options in negotiations with non-salaried faculty groups.
E	Foundation, Alumni, Support Groups	First	JPA or Captive/RRG	4	6
F	Unmanned Water and Air Vehicles	First	JPA or Captive Insurance	4	6
G	Builders Risk	First	Captive Only: Reinsures fronting insurer	4	12
H	Subguard (Bonding for subcontractors)	Third	Captive Only: Reinsures fronting insurer	4	12
I	University Contractors Insurance Program (UCIP), general liability, workers' compensation, etc.	Third	Captive Only: Reinsures fronting insurer	4	Will permit expanded scope of coverage
J	Terrorism Program	First	Captive Only	4	24 - will require large capital commitment for TRIA recovery
K	Marine	First	JPA or Captive/RRG	4	12
L	Library and Art	First	JPA or Captive Insurance	4	12 for existing SIR
M	TULIP	Third	Captive Only: Reinsures fronting insurer	3	12
N	Earthquake and FEMA	First	JPA or Captive Insurance	3	12

O	Tuition Guard	Third	Captive Only: Reinsures fronting insurer	3	12
P	Renter Guard	Third	Captive Only: Reinsures fronting insurer	3	12
Q	Construction Professional	First	Captive Only: Reinsures fronting insurer	3	24
R	Pollution	First	JPA or Captive Insurance	3	24
S	Nuclear	First	JPA or Captive/RRG	3	12
T	Cyber	First	JPA or Captive/RRG	3	12
U	Airport/Non-owned aircraft	First	Best for Captive/RRG	2	24
V	Environmental Impairment Liability	First	JPA or Captive/RRG	2	24
W	Campus Connexions	Third	Captive Only: Reinsures fronting insurer	1	24
X	Property	First	JPA or Captive Insurance	1	Current deductible program is satisfactory

¹ “Captive/RRG” indicates that a captive or RRG insures the risk directly with an insurance policy. 95% of the exposures written by the RRG are assumed to be reinsured by the captive. Alternatively, a captive can participate in UC’s risk by reinsuring another insurer, called the “fronting insurer.”

The following discussion provides information about each of these exposures.

A. Excess Hospital Professional Liability, General Liability, and Auto Liability

At the present time, these exposures are self-insured at \$5,000,000 per occurrence for Hospital Professional and \$2,500,000 for General and Auto Liability. The self-insurance program is funded on an “occurrence” basis, rather than a “claims made” basis. Excess insurance is provided in various layers on a claims-made basis. The first layer of this excess insurance provides a limit of \$10,000,000 in excess of the self-insured layers. However, this is excess over the primary layers of Employer’s Liability and Foreign Liability. The current premium for this first layer of excess insurance is \$4,895,000.

Options for alternative funding include increasing the self-insured retentions to \$10,000,000 or \$15,000,000. Marsh, UC’s insurance broker, has estimated that UC’s premiums could be reduced from \$1,500,000 to \$1,900,000 if each of the underlying programs increased their SIR’s to \$10,000,000. This would result in an increase in the Auto and General Liability SIR from \$2,500,000 to \$10,000,000 and an increase in the Hospital Professional Liability SIR from \$5,000,000 to \$10,000,000.

The actuarial forecast of losses resulting from these increases would be about \$3,939,000 on a net present value basis, excluding expenses for claims adjusting expenses.

Another consideration would be to eliminate the entire first layer of excess, thus saving \$4,895,000 in premiums. The actuarial forecast of losses to increase the respective retentions by

\$10,000,000 is \$4,738,000 on a net present value basis, excluding claims adjusting expenses. Both of the preceding options would require increasing the current insurance limit for Employer's Liability and Foreign Liability, or self-insuring the corridor between those current limits and the attachment point of the existing second layer of excess insurance. This example will be used in a later section of this report as an example of structuring this additional SIR in either a captive insurance company or a JPA.

There is a caveat regarding the use of a JPA for the medical malpractice exposure of UC. This caveat relates to the issue of reimbursement from the Centers for Medicare & Medicaid (CMS) for health care services provided to the indigent and senior population through Medicare and Medicaid. Prior to the mid-1990s, reimbursement was based on allowable costs as defined in Part 1, Chapter 21, Section 2162 of the Provider Reimbursement Manual (PRM) of the Department of Health and Human Services, entitled Costs Related to Patient Care. This form of reimbursement was replaced by a system of payment based on Diagnostic Related Groups (DRGs) and Ambulatory Payment Classifications (APCs) in the mid-1990s. Therefore, the cost reporting method has limited reimbursement applications. However, there remains a component of reimbursement which may require compliance with the PRM, such as an appeal process seeking additional reimbursement. The JPA program of a group self-insurance pool does not meet the requirements of Section 2162 of the PRM which in general terms requires the appointment of a fiduciary for a self-insurance program, or the establishment of a captive insurance company regulated by one of the United States Insurance Departments.

We have found that one of the JPAs in California which provides medical malpractice insurance to a number of county-owned hospitals has been granted status as a Limited Purpose Insurance Company (LPIC) by CMS, and contributions made to this LPIC are considered allowable costs by CMS.

While a captive is not as efficient as a JPA, including this exposure in the captive could allow the captive to accrue capital which would then support other more profitable captive activities, such as insuring/reinsuring third-party exposures and providing risk consulting services. However, the captive approach is subject to fees and/or premium taxes in the state in which it is domiciled. In addition, the premium flowing into the captive from California may be taxed by California as self-procurement taxes.

When considering the medical malpractice funding requirements alone, the captive approach as compared to the JPA will add the following costs, based on an annual funding requirement of approximately \$55,000,000.

• Captive domicile fees	\$5,000
• Additional management fees	50,000
• Self-procurement taxes in California (3% x \$55 million)	1,650,000
• <u>LOC or other security cost for required surplus</u>	<u>100,000</u>
TOTAL	\$1,805,000

B. Employment Practices Liability

The current SIR for the employment practices liability (EPL) program is \$5,000,000. Excess insurance provides a limit of \$25,000,000 at a current annual cost of \$608,000. The broker suggests that by increasing the SIR to \$10,000,000, the premium savings would be approximately \$68,000 to \$88,000. The actuarial forecast of losses for this additional layer of exposure to UC is approximately \$500,000, at the expected confidence level. There is not

sufficient premium savings available to consider increasing the SIR for EPL. However, the existing SIR could be funded within a JPA or a captive.

C. Workers' Compensation

The current SIR for Workers' Compensation is \$5,000,000 per loss. The excess program is structured as a single limit providing statutory benefits above this retention. The current deposit premium is \$3,870,900, developed by using a rate of .0391 per \$100 of payroll. The broker has indicated the premium savings to provide this same level of excess coverage over an SIR of \$10,000,000 would be approximately 10% to 15%. At 15% this would be a premium savings of \$580,635. The actuarial forecast of losses for this additional \$5,000,000 is \$100,000 at the expected confidence level (excluding claims adjusting expense). With \$480,000 in potential cost savings, we recommend that this layer be a first priority for inclusion in an alternative risk financing program.

D. Part-Time Staff and Faculty

This is a program which could be sponsored by UC and which would accept the professional liability exposures of part-time clinical staff and faculty who are currently provided UC funded defense and indemnification, but not for their private office practice exposures. Some of these individuals do not have private commercial insurance and try to transfer all their private insurance needs to UC. In other cases, the faculty members are provided with defense and indemnity, but their medical group is not, and the medical group may not have separate insurance. It is believed that the negotiations by the Schools of Medicine to attract non-salaried faculty would be facilitated if UC had the ability to provide coverage for all activities. Further, the ability to underwrite the risks of such activities would provide UC with greater ability to control the risks. We recommend a captive reinsuring a fronting company or a RRG.

E. Foundation, Alumni, Support Groups (FAS)

The FAS program has been arranged through Philadelphia Insurance Company. It provides coverage for events sponsored by qualified foundations, alumni associations, and student groups affiliated with UC. The majority of these covered events are held off campus.

Participation in this program for the policy year October 1, 2009, to September 30, 2010, is as follows:

CAMPUS	NUMBER OF EVENTS	RANGE OF PARTICIPATION
UC Berkeley	47	10 to 5,000
UC Davis	7	50 to 100
UC Irvine	25	30 to 2,000
UC Los Angeles	17	10 to 1,000
UC Riverside	14	25 to 2,000
UC Santa Barbara	19	15 to 250
UC San Francisco	31	15 to 874
UC Santa Cruz	16	20 to 1,000
UC San Diego	345*	4 to 1,000

*BRS has not determined why this campus has such a high number of events compared to the other campuses.

Philadelphia Insurance Companies provides five different policies for FAS. The policies and the annual premium for each are:

Insureds	Policy Number	Limits	Premium
Tenant User Liability	PHPK513040	\$1,000,000 per occurrence	\$2,000 (deposit only)
Registered Student Org. (On-Campus)	512914	\$1,000,000 per occurrence	\$403,927
Registered Student Org. (Off-Campus)	512918	\$1,000,000 per occurrence	Deposit \$2,000
Sports Camps/Clinics	516771	\$1,000,000 per occurrence	Deposit \$2,600
Recognized Sports Clubs	477053	\$2,000,000 per occurrence	\$64,126

For the first year of the program, from January 12, 2009 to January 12, 2010, there have been three losses with total incurred value of \$8,400.

Chartis Insurance Company (Chartis) provides an Event Liability program which includes General Liability, Auto Liability, and Liquor Liability for participants in this program. Limits of \$2,500,000 for each loss and \$10,000,000 annual aggregate are arranged in the primary policy provided by Chartis. The next layer of \$10,000,000 is provided by Ironshore Insurance Company and then this program is incorporated into the master liability excess program providing excess insurance totaling \$280,000,000.

The annual premium for the Chartis portion of the program is \$1,010,370. The annual premium for the Ironshore portion of the program is \$143,684. For the three-year period of this program as of May 31, 2010, there has been only one loss which is currently reserved at \$22,000.

Directors and Officers Liability insurance for the Foundations is provided by Chubb. The limit is \$10,000,000 and the premium is \$130,700. An excess program with limits of \$10,000,000 is provided for the Foundations at UC Berkeley and UC Los Angeles.

This program could be moved into a JPA or captive/RRG. There is considerable administrative activity in this FAS program. Placing these exposures in a captive or JPA will require administrative staffing and procedures. The existing broker on this program could be contracted with to perform services similar to what they are currently as an agent for the JPA.

The exposures insured in the FAS program are direct exposures of UC and its related organizations, with the exception of the TULIP program. Please see Item M of this section for a discussion of this program.

F. Unmanned Water and Air Vehicles

The liability exposures, as well as the property damage exposures for these activities, are currently uninsured. Losses resulting from these exposures could be funded in a captive or JPA.

G. Builders Risk

The property insurance for new construction projects is placed in a builder's risk insurance program. Zurich Insurance Group (Zurich) currently provides the insurance coverage. For the current three-year policy period which ends September 1, 2011, 564 projects are currently enrolled with construction values totaling \$2.1 billion and total premium of \$2.2 million.

At the present time there is no risk sharing by UC in this program, as there is in the casualty portion of the UCIP program.

One method of arranging some form of profit sharing for UC would be for a UC captive to reinsure Zurich for a portion of any loss or up to the equivalent of a large deductible.

H. Subguard (Bonding for Subcontractors)

Subguard is a Subcontractor Default Insurance Product which is offered by Zurich. It is intended as an insurance policy to be purchased by a general contractor to protect the general contractor in the event a subcontractor defaults on performance on the project or payment of taxes and employee wages during the project. This product is purchased in lieu of requiring each subcontractor to purchase surety or performance bonds.

UC does not have the authority to excuse the general contractor from requiring surety bonds of subcontractors. The authority is contained in various statutes commonly referred to as the Little Miller Act, which most states have enacted as a follow up to the federal Miller Act. The purpose of the federal legislation was to protect the public and employees from defaults committed by contractors and subcontractors on federal construction projects.

Using a captive, UC could create a product called UCguard that could be purchased by the general contractor and subcontractor. There is still a need to evaluate subcontractors and general contractors. To the extent UC does not pre-qualify these firms, there may be a need to engage outside consultants to perform this qualification function.

I. UCIP Program, General Liability, Workers' Compensation, etc.

UC generates one of the largest volumes of construction in the State of California. Historically, contractors performing work on the project site would provide their own insurance for general liability and workers' compensation. Risk Services at UCOP aimed to develop and implement a system-wide University Controlled Insurance Program (UCIP) for all projects with construction budgets over \$25 million, with higher limits dedicated to the UC project, broader coverage, and uniform/consistent coverage for the project duration. The \$25 million threshold was determined to provide the greatest benefit. This program concept has existed for the past 40 years; however, in the last ten years, it has received widespread understanding and acceptance. Many public and private entities have successfully implemented similar programs. Even contractors have implemented "Contractor Controlled Insurance Programs" whereby the contractor procures insurance for the entire project and reaps cost savings itself.

UCIP's legacy program (Owner Controlled Insurance Program, or OCIP) completed four projects at two campuses with a total construction value of \$234 million and a total return savings at close-out of \$1.9 million.¹ The new UCIP has enrolled eight additional projects from four campuses with a combined construction value of \$1.4 billion and potential savings in the range of

¹ The legacy program OCIP is also poised to complete a fifth and final project at UC Davis with construction value of \$330 million.

\$14 million to \$42 million (1% to 3%). It is anticipated that through the program, UC can save 1% to 3% of total construction value and up to \$17 million annually, based on projected construction completion per year. The savings on insurance itself can be as much as 35% below traditional insurance costs. Return savings are driven by the safety and loss experience specific to each project. UCIP provides enhanced safety, leading to improved loss experience and a safer construction site which creates the potential for greater return savings. The average loss ratio is under 20%, which reflects the benefits of the increased safety awareness provided by UCIP.

A directive was issued in October 2009 by the UC's Executive Vice President - Business Operations and Executive Vice President - Chief Financial Officer, stating that UCIP implementation would begin January 1, 2010.

The UCIP is a loss-sensitive program with a \$250,000 deductible. Under this arrangement UC participates in the profit and loss of the project, up to the amount of the deductible. The excess insurance is provided by Zurich. A loss fund is established for deductible payments and to the extent this is considered actuarially insufficient, Zurich asks for additional collateral in the form of a letter of credit.

This is a program which could be reinsured by a captive allowing for UC to share in the profit. Also, the program could be expanded to include design errors and omissions (construction professional) and builder's risk, as well as the general liability and workers' compensation coverage that is currently offered in the UCIP. This would further alleviate conflict that arises regarding which policy should respond to construction losses. This "bundled" approach is not currently offered in the insurance market due to aggregate loss issues of having one carrier provide the coverage for one insured and/or construction project.

J. Terrorism Program

UC currently purchases terrorism liability coverage as a separate program rather than accepting the endorsed coverage on each liability policy which it purchases. The separate program is structured with \$20 million in insured limits in excess of a SIR of \$5 million. The annual premium for this program is \$664,000.

This coverage includes not only conventional terrorism, but also loss from Nuclear, Biological, Chemical, and Radiological contamination (NBCR) which is the second portion of the TRIA act.

If UC were to increase its self-insured retention to \$10,000,000, the annual premium for the excess insurance would be \$597,600. This is a premium savings of \$66,400. This is not considered a worthwhile opportunity for alternative funding.

However, UC should explore creating a captive insurance company for just terrorism coverage. TRIA is a complex governmental program to reinsure (backstop) insurance companies and to provide more complete recovery for insureds that suffer loss as a result of a terrorist event. TRIA has two components to it:

- Conventional Terrorism Events; and
- Nuclear, Biological, Chemical, and Radiological Events (NBCR).

The act requires insurance companies to offer conventional terrorism coverage to all insureds, but does not require that NBCR insurance be offered. Consequently, it is only the conventional terrorism coverage that is usually purchased by insurance buyers with terrorism exposures. However, the response from TRIA will be the same for either of the two coverages. This means

TRIA will pay 85% of the loss on a quota share reinsurance basis, subject to a minimum loss of at least \$5,000,000, and a deductible for the insurance carrier which is 20% of its terrorism-related premium.

There is also a TRIA trigger which must be met before coverage is effective. This trigger is a terrorist loss of in excess of \$100 million. The \$100 million threshold can be made up of one loss at \$101 million or 101 losses of \$1,000,000 each. Once this trigger is reached, the TRIA act will respond.

A captive insurance company created by UC can access this TRIA recovery, or backstopping, such that recovery after a terrorist event will be largely a federal government recovery. Specifically, if a limit of \$1 billion is determined as the Probable Maximum Loss (PML), the captive can write an insurance policy for that amount. The retention of the captive would be \$150 million and TRIA would provide 85% recovery, or \$850 million for the maximum loss. The \$850 million must be reinsured and the reinsurers recognize their responsibilities are very limited since TRIA will be providing the \$850 million in recovery.

Therefore, consideration should be given to creating a captive insurance company for this purpose.

K. Marine

The marine exposures of UC are insured in two policies, a Marine Protection & Indemnity (P&I) policy with an annual premium of \$210,227, and a Marine Pollution Liability policy with an annual premium of \$20,046. The loss experience in the Marine P&I policy has been relatively consistent and has averaged \$71,875 over the past eight years. Unless there are licensing or registration requirements, these losses should be funded in either a captive or JPA, and the insurance policy should be eliminated. There have been no losses under the pollution policy and with its small premium, it may be appropriate to continue the insurance policy.

L. Library and Art

This program consists of two towers of primary insurance with a single excess layer over both towers. One tower provides coverage for Libraries and Unscheduled Fine Art. This tower consists of a self-insured layer of \$1,000,000 and then excess insurance in two layers for a total limit of \$1 billion. The second tower is for Scheduled Fine Art and the Permanent Collection. This tower consists of a nominal deductible of \$1,000 and then an insured layer of \$50,000,000 before entering the excess layer providing \$1 billion in limits.

The total annual premium for the insurance portion of this program is \$945,820. Consideration could be given to increasing the SIR in the library portion of this program and moving to a meaningful SIR, rather than a small deductible for the fine arts portion of the coverage. However, the premium savings may not support additional self-insurance. Nevertheless, the current SIR should be funded in either a captive or JPA.

M. TULIP

This program provides liability insurance to the Tenant Users of UC facilities for special occasions, such as a wedding held on campus. The program is designed to provide liability protection for the vendors or service providers brought in by the sponsoring person or family to assist in making the event comfortable. These may include the food caterer, refreshment provider, and the music manager.

For the ten months ending June 30, 2010, there were 722 events at the ten UC campuses. The number of events ranged from four at Merced to 255 at Berkeley. The total premium for these 722 events was \$126,350. There have been no losses.

This program could be reinsured by a captive. Including these exposures in a JPA would require invoking the provision in the JPA legislation that allows similar vendors to be insured by the County Fairs JPA. Legislative changes to Section 6500 may be needed to accomplish this. Alternatively, UC could redesign its contracts with its vendors and service providers in such a way that turns these third-party liabilities into first-party liabilities, thus making them directly eligible to be included in a JPA. However, it is our understanding that this is not a tenable option for UC.

N. Earthquake and FEMA

UC does not purchase insurance for its buildings and contents against earthquake damage. However, if a fire caused by the earthquake causes damage, the fire damage is covered in the master property program. Third party liability and workers' compensation losses resulting from earthquakes are covered in UC's general liability and workers' compensation self-insurance programs. Earthquake is a covered peril in the first layer of the Scheduled Fine Arts program, but not in the Library and Unscheduled Fine Arts Program.

The Federal Emergency Management Agency (FEMA) may or may not provide financial assistance to UC following an earthquake. FEMA's official policy suggests that public entities are supposed to purchase earthquake insurance. However, in the past FEMA has taken into consideration the public entity's reasoning for not buying insurance. If FEMA agrees that the coverage was not available or not available at a reasonable price, FEMA may respond with financial aid.

FEMA policies indicate that it will provide financial assistance only once per specific buildings. For example, if FEMA has assisted in reconstruction costs for a UC library, it will not provide assistance if this same building is damaged by another earthquake.

If a JPA or captive is formed, consideration should be given to establishing a separate self-insurance fund for earthquake coverage. UC could then rely on this pre-funded financial reserve, in combination with possible assistance from FEMA, to reconstruct buildings damaged by an earthquake.

O. Tuition Guard

This program provides continuation of tuition payments in the event a student or his or her family is no longer capable of paying these expenses (for various defined causes), and, as a result, the student is forced to withdraw from UC. There is also a component that pays the amount owing under contract should the student become disabled. This program provides revenue protection for UC in that the revenues for tuition and housing expenses will continue to flow into the system.

This program could be reinsured by a UC captive, and with some policy changes it might also be able to be included in a JPA program. Because this is also a UC exposure from a loss of revenue standpoint, UC could charge a fee to the students that want this protection and then place the fee in the Tuition Continuation Program of the JPA.

This program could also be considered similar to trip insurance that is charged by many airline, hotel, and resort operators. The customer pays an extra fee, and if the trip has to be canceled, the various cancellation fees are paid by the airline, hotel, or resort operator.

P. Renter Guard

This is very similar to the Tuition Program but designed for those students that rent housing on the UC campus. The exposure to UC is similar to the tuition exposure in that UC may lose revenue if the student can no longer pay rent. The management and funding of this program could be similar to the tuition program.

Q. Construction Professional

This is a program which is still in the design phase. The intent of the program is to structure a program which will provide excess protection to UC in the event the required professional liability insurance limits provided in the architect/designer insurance policy is not sufficient to cover the loss.

UC is reimbursing the architect/designer for the premium paid by the architect/designer for their insurance. This is a program which could be reinsured by a captive as a standalone program or bundled with the UCIP as described above.

R. Pollution

An Environmental/Pollution Liability program has been arranged to provide liability protection for the Agricultural and Natural Resources (ANR) sites and Medical Centers. This program provides a limit of \$10,000,000 in excess of a deductible of \$50,000.

With UC's ability to self-insure other liability risks, pollution should also be considered, either with a \$5,000,000 SIR, or by self-insuring the full limit of the policy. This exposure could be funded in a captive or JPA.

S. Nuclear

The campuses at UC Irvine and UC Davis have nuclear reactors for research purposes. Excess liability coverage is provided for both of these exposures, but only in excess of a limit of \$250,000. Primary coverage is arranged for the reactor at UC Irvine, with the first \$250,000 self-insured by UC Davis. Coverage for both of these underlying limits of \$250,000 could be placed in a captive or JPA, thus eliminating the need for the current commercial underlying policy.

T. Cyber

A program for Cyber and Privacy Liability has recently been developed. The insurance coverage provides a limit of \$2,000,000 in excess of a SIR of \$1,000,000.

This entire exposure could be funded in a captive or JPA, thereby making the commercial insurance purchase unnecessary. However, insuring this exposure and then reinsuring it through a captive assists UC's Risk Services Department in the establishment and enforcement of procedures to prevent losses of this type. As a result, we have assumed that this exposure would be reinsured by a captive and not included in a JPA.

U. Airport/Non-Owned Aircraft

UC Davis has a small general aviation airport, and there are a number of situations where aircraft are rented or used on UC business for various purposes. These exposures are currently insured in two separate insurance policies. These policies should be continued with either the JPA or captive participation.

V. Environmental Impairment Liability (EIL)

The EIL program is currently in the design phase. The intent is to provide liability protection for the various agricultural activities at UC Davis and its extensions. If a JPA is established, this program could be funded in the JPA. If the exposure is deemed to be large, excess insurance in the commercial insurance market may still be necessary.

W. Campus Connexions

This program is designed to provide insurance protection for the personal property of students, professional liability insurance for professional service providers engaged for specific tasks, and other campus-related insurance needs. A UC captive could reinsure some or all of the risk placed with a commercial insurer providing the protection. Making these risks eligible to be included in a JPA would require changing the contractual nature between UC and the student or service provider, and we understand this is not a workable option for UC.

X. Property

While this is a very large insurance program for UC, there really is not much to be gained by financing the risk in any other fashion than the current self-insurance program. The primary insurer, Factory Mutual, will not reduce the premium significantly if UC assumes higher deductibles or SIRs, and Factory Mutual would probably not accept a partner in the form of a UC captive providing reinsurance. This is likely to be the case with other commercial insurers as well.

The first layer of this program provides limits of \$4 billion in excess of a self-insured retention of \$7,500,000. The premium for this first layer is \$5,575,275.

Various other insurers participate in the next layer of insurance which is \$1 billion, thereby providing a total of \$5 billion in limits.

Coverage for terrorism acts is provided in the first layer of this program through the Terrorism Risk and Insurance Act (TRIA). The premium for the TRIA coverage is \$247,500. The TRIA coverage is only for conventional terrorism and does not include losses resulting from nuclear, biological, chemical, and radiological exposures.

VIII. Administrative Services

There are several services which must be provided to the risk financing program, regardless of whether the funding method is a traditional captive, RRG, or JPA.

A. Underwriting

There are two principal functions of insurance underwriting that should be included in any structure that is taking on risks of the organization.

- Is the risk quantifiable?
- What is the value of the risk in terms of expected losses?

The process to determine the answer to the first question is usually determined by an actuary and based on exposure units and previous losses. The previous losses may be the losses of UC and its affiliates or the losses of many organizations in similar settings.

An example of risks which are difficult to quantify is that of expected losses from unmanned aircraft or unmanned underwater vehicles.

The actuary is then called upon to address the second underwriting function of determining a reasonably accurate value for the risk that is to be included in the funding arrangement. For the risks of hospital professional liability, general liability, employment practices liability, and workers' compensation, the actuary can provide expected losses at various confidence levels on both a non-discounted and discounted basis.

With respect to risks presented by the activities of the FAS groups, the value of these risks is not something that can be determined by using UC loss experience. The experience of insurance companies underwriting these types of exposures must be used to develop proper pricing for the risks. This can be accomplished by engaging a consultant or insurance brokerage firm to assist in establishing the appropriate pricing per unit of exposure.

Once the answers to the first two questions are determined, a third question becomes that of comparing the cost of the funding plus administrative expenses versus the cost of commercial insurance used to transfer the same risk.

All of the above, and other questions that will come up during discussions of which risks to place in the funding arrangement, will require some form of value determination, either from an actuary or experienced underwriter. We suggest these resources are currently available to UC's Risk Services department as existing consultants or brokers, along with the experience of the Risk Services staff.

There may be some additional cost related to the underwriting activities. However, the cost is expected to be modest compared to the current cost of insurance premiums with built-in expense factors.

B. Loss Prevention

Loss prevention services are already in place, either with consultants or UC staff, for many of the risks which would be considered for placement in the funding structure. However, when we consider some of the unique exposures which could be placed in the funding arrangement, such

as the surety exposure for subcontractors, there may be a need for additional loss prevention services. These services would be directed toward improving the pre-qualification process for subcontractors. Bringing the FAS exposures into the funding arrangement may also require additional emphasis on controlling safety hazards at the venues used for functions of the FAS units.

There could be costs associated with these additional loss prevention measures. However, in the long run, these costs are expected to be repaid by reducing losses and funding requirements associated with these risks.

C. Claims Management

Claim management resources are already in place for the exposures which are currently self-insured, and these resources can be used without additional cost for expanded self-insurance programs (such as hospital professional liability).

The unique exposures placed in the funding structure will require the engagement of additional claim management resources, perhaps by the same organizations currently handling the self-insured losses. As an example, the firm which provides claim management services for the self-insured general liability program could be used to manage a general liability claim resulting from the activities of one of the FAS units.

D. Risk Consulting Services

As the Risk Services Department develops and implements the services necessary to incorporate the various exposures of UC into a captive or JPA, consideration should be given to offering these services to unrelated organizations that cannot become insurance members of the captive or JPA. If structured properly, fees from such services could add revenue to the captive or JPA and offset some of the costs of managing the captive or JPA.

IX. Pro Forma Financial Statements

We have produced detailed financial pro formas comparing costs and net present values related to creating a JPA and a captive. Section VI of this report (Cost Comparisons) discusses the various coverages that are included in our captive and JPA pro formas. Section VII of this report discusses the coverages that are included in the pro formas, as well as other coverages which could be included in a captive or JPA. We have produced pro formas under three different scenarios:

1. Current Program (Appendix A): Assumes no change to the current structure.
2. Captive/RRG (Appendix B): The captive offers the opportunity to cover more exposures than the JPA. The captive pro forma includes those risks in the JPA pro forma in addition to TULIP, Campus Connexions (ex FAS), Builders Risk, and Cyber Liability. The captive pro forma also assumes a modest level of revenue generation from the sale of risk services to third parties. For display purposes, we have assumed costs associated with a captive domiciled in Bermuda and an RRG in Hawaii.
3. JPA (Appendix C): Excess layers of UC “Core Coverages” would be covered by the JPA. Excess layers are those between current UC SIRs and \$10,000,000. FAS and Marine are also included in the JPA.

For each of the above alternative risk scenarios, the pro formas include a balance sheet, income statement, statement of cash flow, and exhibits detailing our assumptions. Summarized results comparing a captive and JPA for the excess layers are found in Section VI of this report.

X. Plan of Action

The following Plan of Action steps is suggested to implement the recommendations offered in this report. These action steps have been separated into three phases, with the Core Programs considered the first phase. The Core Programs are UC's existing self-insurance programs for:

- Medical Malpractice Liability;
- General Liability;
- Workers' Compensation;
- Employment Practices Liability;
- Automobile Liability; and
- Property Program.

The second phase would include the expansion of these existing self-insured programs to higher limits and other programs that have a priority ranking of 4 or 5 in the chart of exposures shown in Section VII.

Phase 3 would be those insurance programs listed in Section VII with a priority ranking of 3 or less.

A. Phase 1

ACTION STEP	START DATE	COMPLETION DATE	RESPONSIBLE PARTY
1. Prepare and present informational item for presentation to the Board of Regents at its September meeting	11/1/11	12/15/11	Office of Risk Services
2. Select consultant to assist in the captive formation process	11/1/11	1/15/12	Office of Risk Services
3. Prepare direct insurance policies and reinsurance agreements for business to be undertaken by captive	12/15/11	1/31/12	Office of Risk Services, consultant, and captive manager
4. Obtain final approval from the Board of Regents	1/1/12	2/17/12	Office of Risk Services and Office of General Counsel
5. Prepare comprehensive business plan with all supporting documentation	1/1/12	2/15/12	Office of Risk Services, actuary, consultant, manager, and global counsel
6. Finalize the exposures and limits that will be placed in the captive for Phase 1	1/15/12	2/15/12	Office of Risk Services and consultant

7. Select global legal counsel to assist in the development of captive	1/15/12	1 /31/12	Office of Risk Services Office, consultant, and Office of General Counsel
8. Select state of domicile for captive	1/15/12	1 /31/12	Office of Risk Services, consultant, and Office of General Counsel
9. Select a captive manager	1 /15/12	1 /30/12	Office of Risk Services and consultant
10. Complete local application	1 /15/12	1 /31/12	Office of Risk Services, consultant, and captive manager
11. Select local legal counsel	1 /15/12	2/28/12	Office of Risk Services, Office of General Counsel, and consultant
12. Present completed application, Business Plan, and all supporting documentation to the Local Insurance Department	2/1/12	2/15/12	Office of Risk Services, consultant, captive manager, and local Counsel
13. Make initial visit to local insurance captive regulatory department	3/1/12	3/15/12	Office of Risk Services, Office of General Counsel staff, global counsel, local legal counsel, captive manager, and consultant
14. Prepare articles of incorporation and by-laws	3/1/12	3/15/12	Global Counsel, local Counsel, and Office of General Counsel
15. Incorporate captive selected state of domicile	3/15/12	3/31/12	Local Counsel
16. Determine board of directors and officers for captive	3/15/12	3/31/12	Office of Risk Services Office, Office of General Counsel, global and local Counsel, and consultant
17. Capitalize the captive	3/15/12	3/23/12	Office of Risk Services
18. Obtain Certificate of Authority for Local Insurance Department	3/20/12	3/23/12	Office of Risk Services and captive manager

B. Phase 2

Phase 2 should consist of those exposures and programs which have been designated as priority 4 or 5 on the list of programs contained in Section VII.

ACTION STEP	START DATE	COMPLETION DATE	RESPONSIBLE PARTY
1. Determine the programs and limits to be placed in the Captive for Phase 2	4/1/12	5/15/12	Office of Risk Services, consultant, and captive manager
2. Engage an actuary to determine appropriate funding levels for the programs	5/15/12	6/29/12	Office of Risk Services, consultant, and actuary
3. Prepare insurance policies for the direct exposures to be insured by the captive and reinsurance agreements for the exposures to be reinsured	6/15/12	6/31/12	Office of Risk Services, consultant, and captive manager
4. Engage counsel to assist in vendor contract modifications	6/15/12	7/15/12	Office of Risk Services, Office of General Counsel, and global counsel
5. Determine modifications that are necessary to captive's business plan, make the modifications, and file with local insurance department	7/1/12	8/15/12	Office of Risk Services, consultant, and captive manager
6. Obtain approval from the local insurance department for modifications to the business plan	8/15/12	8/31/12	Captive manager
7. Bring additional programs into the captive	9/1/12	10/1/12	Office of Risk Services and captive manager

C. Phase 3

Phase 3 should include those programs that are prioritized as 3 or less in the table contained in Section VII.

ACTION STEP	START DATE	COMPLETION DATE	RESPONSIBLE PARTY
1. Determine the programs and limits to be placed in the captive	11/1/12	11/31/12	Office of Risk Services
2. Determine the appropriate funding levels for the programs	12/1/12	1/30/13	Office of Risk Services and actuary
3. Engage counsel to assist in vendor contract modifications	3/1/13	5/1/13	Office of Risk Services, Office of General Counsel, and global counsel
4. Determine modifications that are necessary to captive's business plan, prepare the modifications, and submit to the local insurance department	5/1/13	5/15/13	Office of Risk Services, consultant, and captive manager
5. Obtain approval from the local insurance department for the business plan modifications	6/15/13	7/30/13	Office of Risk Services and captive manager
6. Bring the additional programs into the captive	10/1/13	10/31/13	Office of Risk Services and captive manager

XI. Glossary of Terms

\$5,000,000 excess of \$1,000,000 – Describes where the excess or reinsurance level of coverage starts. For example, the self-insured entity pays the first \$1,000,000 of the loss, and then the excess or reinsurance carrier assumes payment on the loss at \$1,000,001 and pays the next \$5,000,000 on the loss.

Agency Captive - A company owned by an insurance agency or brokerage firm to reinsure a portion of their clients' risks through that company.

Allocated Loss Adjustment Expenses (ALAE) - Expense incurred in settling claims that can be directly attributed to specific individual claims (e.g., legal fees, investigative fees, court charges, etc.)

APQC - A member-based, nonprofit specializing in benchmarking, knowledge management, measurement, and process improvement.

Association Captive - A company owned by a trade, industry, or service group for the benefit of its members.

Automobile Liability Insurance - Insurance that protects the insured against financial loss because of legal liability for automobile-related injuries to others or damage to their property by an auto.

Backstop - Another term for reinsurance.

Captive - Captive insurance companies are insurance companies established with the specific objective of financing risks emanating from their parent group or groups, but sometimes also insure risks of the group's customers.

Catastrophic Loss - Loss in excess of the working layer, usually of such magnitude as to be difficult to predict and therefore rarely self-insured or retained.

Cell Captive - A sponsored captive or rent-a-captive, which maintains underwriting accounts separately for each participant. May be called protected cell captive (PCC) or segregated cell insurer. If the cells are legally segregated, it may be used to securitize risk.

Claims Made - A term describing an insurance policy that covers claims first made (reported or filed) during the year the policy is in force for any incidents that occur that year or during any previous period during which the insured was covered under a "claims-made" contract.

Deductible - A portion of covered loss that is not paid by the insurer. Most property insurance policies contain a per-occurrence deductible provision that stipulates that the deductible amount specified in the policy declarations will be subtracted from each covered loss in determining the amount of the insured's loss recovery.

Directors and Officers (D&O) Liability Insurance - Insures corporate directors and officers against claims, most often by stockholders and employees, alleging financial loss arising from mismanagement.

Discount Factor - A factor to adjust estimated loss costs to reflect anticipated investment income from assets held prior to actual claim payout.

Domicile - The location or venue in which a captive insurer is licensed to do business.

Employers Liability Coverage - This coverage is provided by part two of the basic workers' compensation policy and pays on behalf of the insured (employer) all sums that the insured shall become legally obligated to pay as damages because of bodily injury by accident or disease sustained by any employee of the insured arising out of and in the course of his employment by the insured.

Employment Practices Liability Insurance (EPLI) - A form of liability insurance covering wrongful acts arising from the employment process. The most frequent types of claims alleged under such policies include: wrongful termination, discrimination, and sexual harassment. The forms are written on a claims-made basis and generally exclude coverage for large-scale, company-wide layoffs.

Enterprise Risk Management - A holistic approach to identifying, defining, quantifying, and treating all of the risks facing an organization, whether insurable or not. Unlike traditional risk management, enterprise risk management deals with all types of risk, such as hazard or event risk, operational risk, credit risk, and financial risk.

Excess of Loss Reinsurance - A form of reinsurance that indemnifies the ceding company for the portion of a loss that exceeds its own retention. It is generally used in casualty lines.

Excess Insurance - A policy or bond covering the insured against certain hazards and applying only to loss or damage in excess of a stated amount retained by an entity, or specified primary or self-insurance.

Excise Tax - A tax imposed on premium payments to offshore insurers: 4% on direct premiums and 1% on reinsurance premiums. It can be eliminated if the captive makes an election to be taxed as a U.S. corporation, or if the transaction is not really insurance (i.e., not claiming premium deductibility) but argued to be a transfer of self-insurance reserves.

Expected Losses - The best estimate of the full, ultimate value of loss costs.

Federal Emergency Management Agency (FEMA) - An agency of the U.S. Department of Homeland Security that provides a single point of accountability for all federal emergency preparedness, mitigation, and response activities. FEMA's primary purpose is to coordinate the response to a disaster that overwhelms the resources of state and local government. FEMA administers the National Flood Insurance Program (NFIP) and advises communities on building codes, emergency response, and flood plain management.

Federal Terrorism Funds Act (TRIA) - Federal legislation enacted in 2002 to guarantee the availability of insurance coverage against acts of international terrorism. Under the Act, commercial insurers are required to offer insurance coverage against such terrorist incidents, and are reimbursed by the federal government for paid claims subject to deductible and retention amounts. This legislation was modified and extended by the Terrorism Risk Insurance Extension Act (TRIEA) in 2005.

First Party Risk - Risk or exposure applying to the insured's own property.

Foreign Liability Coverage - A specialty policy for an insured's liability for foreign operations arising out of a permanent branch office, manufacturing facility, construction project, or other operation located in an other country. The commercial general liability (CGL) policy provides coverage for incidental exposures, e.g., when an executive who lives and works in the United States and occasionally travels overseas for business trips. For permanent operations in foreign countries, a separate foreign liability policy is required.

Fronting Company - An insurer that issues policies and reinsures all of the risk to another insurer.

General Liability Insurance - Insurance protecting insureds from most liability exposures other than automobile and professional liability.

Group Captive - A company, jointly owned by a number of companies, created to provide a vehicle to meet a common insurance need.

Insured - The entity protected under an insurance contract.

Joint Exercise Powers Act - Section 6500 of the California Government Code that governs Joint Powers Authorities.

Joint Powers Authority - An entity permitted under the laws of some states whereby two or more public authorities can operate collectively.

Licensing fees - A fee charged to license a captive in a certain domicile.

Limited Purpose Insurance Company (LPIC) - Companies that provide insurers and reinsurers with alternative capital to reduce earnings and capital volatility.

Little Miller Acts - State versions of the federal Miller Act, these laws require contractors working on state projects to furnish bonds or some other security for the protection of subcontractors and suppliers. State statutes vary widely in the degree of resemblance to the federal Act (also see Miller Act).

Loss Adjustment Expense (LAE) - The cost of investigating and adjusting losses. Loss adjustment expenses need not be allocated to a particular claim. If they are allocated to a particular claim they are called "allocated loss adjustment expenses" (ALAE); otherwise, they are unallocated loss adjustment expenses.

Loss Prevention - A risk management technique that seeks to reduce the possibility that a loss will occur and/or reduce the severity of those that do occur. Also known as risk control or safety. Driver training programs are loss control programs that seek to reduce the likelihood of accidents occurring. Sprinkler systems are loss control devices that reduce the severity of loss by fire.

Loss Ratio - Proportionate relationship of incurred losses to earned premiums expressed as a percentage. If, for example, a firm pays \$100,000 of premium for workers' compensation insurance in a given year, and its insurer pays and reserves \$50,000 in claims, the firm's loss ratio is 50 percent ($\$50,000 \text{ incurred losses} / \$100,000 \text{ earned premiums}$).

Medical Malpractice Insurance - Coverage for the acts, errors, and omissions of physicians and surgeons, encompassing physicians professional liability insurance, hospital professional liability insurance, and allied health care (e.g., nurses) professional liability insurance.

Miller Act - The Miller Act is a federal statute (40 USC §§ 270a-270d-1) that requires contractors to furnish payment and performance bonds in conjunction with the construction, alteration, or repair of public buildings. The Act applies to federal contracts exceeding \$100,000.

Mutual Insurance Company - A corporation owned and operated by and for its insureds. Every owner of the company is an insured; every insured is an owner.

Net Present Value - The discounted value or current cost of an amount to be paid in the future, taking into account anticipated investment income and the timing of tax deductions.

Offshore Captive - Offshore captives are domiciled off the shores of the United States. Insurance regulation in Bermuda and the Cayman Islands, for example, is generally considered to be more flexible and reporting requirements less stringent than onshore.

Outstanding Loss Reserve - An estimate of the value of a claim or group of claims not yet paid. A case reserve is an estimate of the amount for which a particular claim will ultimately be settled or adjudicated. Insurers will also set reserves for their entire books of business to estimate their future liabilities.

Owner Controlled Insurance Program (OCIP) - A centralized insurance program under which one party procures insurance on behalf of all (or most) parties performing work on a project or a site. Typically, the coverages provided under an OCIP include builders risk, commercial general liability, workers' compensation, and umbrella liability. OCIPs offer a number of benefits including greater control of the coverage, potentially lower costs, and reduced litigation.

Paid Losses - Losses actually paid on all reported claims.

Premium - The amount of money an insurer charges to provide the coverage described in the policy or bond.

Premium Tax - A tax, imposed by each state, on gross premium written by insurers allocable to risks located in that state.

Probable Maximum Loss (PML) - A property loss control term referring to the maximum loss expected at a given location in the event of a fire at that location, expressed in dollars or as a percentage of total values.

Pro forma financial statements - A set of financial statements (usually an income statement, balance sheet, and statement of cash flow) designed to exhibit future financial results. They are created using known (or sometimes assumed) input data (usually expenses), along with an estimated amount of revenue, to project an estimated amount of earnings. These statements are commonly used for new risk funding programs such as captives and risk retention groups.

Program Losses - Losses, including ALAE, limited to the self-insured retention for each occurrence.

Property Insurance - First-party insurance that indemnifies the owner or user of property for its loss, or the loss of its income-producing ability, when the loss or damage is caused by a covered peril, such as fire or explosion. In this sense, property insurance encompasses inland marine, boiler and machinery, and crime insurance, as well as what was once known as fire insurance.

Pure Captive - A captive insurance company with one corporate owner, insuring only the risks of the parent organization or its subsidiaries. Also called a single-parent captive.

Quota Share Reinsurance - A form of reinsurance in which the ceding insurer cedes an agreed-on percentage of every risk it insures that falls within a class or classes of business subject to a reinsurance treaty.

Reciprocal Insurance Exchange/Reciprocal Captive - An unincorporated group of individuals, firms, or corporations or entities who are commonly termed as subscribers or members, mutually agree to exchange contracts of insurance or insurance policies and share their insurance risks among themselves within their select group. Each insured subscriber or member of a reciprocal exchange individually appoints and authorizes a common attorney-in-fact, the chief administrator to manage the affairs of the exchange. The attorney-in-fact manages the reciprocal's finances and deals with underwriting, claims administration, and investments and administers the day-to-day operations.

Reinsurance - A transaction in which one party, the "reinsurer," in consideration of a premium paid to it, agrees to indemnify another party, the "reinsured," for part or all of the liability assumed by the reinsured under a policy of insurance that it has issued. The reinsured may also be referred to as the "original" or "primary" insurer, or the "ceding company."

Rental Captive - A captive insurance company that allows unrelated parties to use the captive for a fee, thereby eliminating the need for formation and operation of a new company. The participant may or may not be required to contribute capital, and may or may not be a preferred shareholder in the rental captive. Provided such use is permitted in a domicile, rental captive participants may be insureds or non-insureds such as insurance agents.

Reported Losses - The total expected value of losses as estimated by the claims administrator. This is the sum of paid losses and case reserves.

Risk Retention Act - Federal legislation passed in 1986 that authorized the formation of purchasing groups and group self-insurance programs for certain types of liability exposures. According to the Act, members of risk purchasing and risk retention groups must be engaged in similar or related businesses or activities.

Risk Retention Group (RRG) - A group self-insurance plan or group captive insurer operating under the auspices of the Risk Retention Act (RRA) of 1986 that can cover all the liability exposures, other than workers' compensation exposures, of its owners. Risk retention groups are not subject to the individual state laws that would otherwise prohibit the formation of group captives or make it difficult to form or operate them.

Self-Insurance - A system whereby an entity sets aside an amount of its monies to provide for any losses that occur - losses that could ordinarily be covered under an insurance program. The monies that would normally be used for premium payments are added to this special fund for payment of losses incurred. Self-insurance is a means of capturing the cash flow benefits of unpaid loss reserves and also offers the possibility of reducing expenses typically incorporated within a traditional insurance program. It involves a formal decision to retain risk rather than insure it and is distinguished from noninsurance or retention of risks through deductibles, by a formalized plan or system to pay losses as they occur.

Self-Insured Retention (SIR) - The level at which an excess insurance policy is triggered to begin payments on a claim. Financially, this is similar to an insurance deductible.

Self-Procurement Taxes – A state-imposed premium tax of up to 4% on premiums paid to most captives.

Single Parent Captive - A captive with a single shareholder. May be referred to as a "single owner" captive. The single-owner captive is not necessarily a "pure" captive since it may be used primarily to insure or reinsure non-shareholder risks.

Solvency Margin - The insurer's unimpaired surplus as a percent of outstanding loss reserve (OLR).

Stock Company - An insurance company that has, in addition to surplus and reserve funds, a capital fund paid in by stockholders, as distinguished from mutual or cooperative companies which have no stockholders. Shares of stock companies are usually traded on one of the organized stock exchanges.

Subguard Insurance - An insurance policy to be purchased by a general contractor to protect the general contractor in the event a subcontractor defaults on performance on the project or payment of taxes and employee wages during the project.

Subscriber Savings Account (SSA) - An account that reflects the subscriber's cumulative allocation of the reciprocal's annual income. The profit credited to the SSA generally is deductible by the reciprocal for regulatory purposes and is not taxed to the non-profits (either when credited or paid out in cash). The reciprocal does not offer this advantage to for-profit organizations.

Surety - A party that guarantees the performance of another. The contract through which the guarantee is executed is called a surety bond.

Surplus - The amount by which an insurer's assets exceed its liabilities. It is the equivalent of "owners' equity" in standard accounting terms. The ratio of an insurer's premiums written to its surplus is one of the key measures of its solvency.

Surplus Lines Insurance - Refers to coverage lines that need not be filed with state insurance departments as a condition of being able to offer coverage. The types of risks typically insured in the surplus lines insurance markets can usually be categorized as risks with adverse loss experience, unusual risks, and those for which there is a shortage of capacity within the standard market.

Third-Party Risk - The risk of losses to third parties, usually insured under casualty or liability insurance.

Tort Liability - An injury to another person or to property, which is compensable under the law. Categories of torts include negligence, gross negligence, and intentional wrongdoing.

Traditional Risk - A term for the traditional risk management concept which focuses primarily on pure risks rather than operational, market, credit, and other types of risk. This term is frequently used to distinguish between the traditional risk management concept and the newer practice of enterprise risk management.

Ultimate Losses - The value of claim costs at the time when all claims have been settled. This amount must be estimated until all claims are actually settled.

Unallocated Loss Adjustment Expenses (ULAE) - Claim settlement expenses that cannot be directly attributed to individual claims (e.g., claims adjusters' salaries, taxes, etc.)

Underwriting - The process of determining whether to accept a risk and, if so, what amount of insurance the company will write on the acceptable risk, and at what rate. Underwriters are companies, individuals, or insurance companies who carry on this critical activity for their own account or for that of others.

Workers' Compensation Insurance - Coverage to provide no-fault statutory benefits prescribed by state law by an employer to an employee (or the employee's family) due to a job-related injury (including death) resulting from an accident or occupational disease.

Appendix A

Current Program Costs

UC Current Program
Calendar Years 2012 - 2016

Calculation of Annual Premium
(\$000'S)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
<u>Net of Quota Share</u>					
Total Captive with Front	\$1,280	\$1,344	\$1,411	\$1,482	\$1,556
Total Captive no Front	1,270	1,334	1,400	1,470	1,544
Total RRG no Front	6,594	6,924	7,271	7,635	8,017
Total Premium (excluding Quota Share amounts)	9,144	9,602	10,082	10,587	11,117
<u>Including Quota Share</u>					
Quota Share Premiums	320	336	353	371	390
Total Premium excluding "Other Coverages"	\$9,464	\$9,938	\$10,435	\$10,958	\$11,507

Appendix B

Captive Pro Forma

UC Captive
Calendar Years 2012 - 2016

Calculation of Annual Premium
(\$000'S)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	
Claims Incurred Including ALAE (ex Reinsured Policies)						
Loss & ALAE (at Expected, NPV @2.50%)	\$5,804	\$6,112	\$6,417	\$6,737	\$7,074	
Risk Margin (20%)	<u>1,161</u>	<u>1,222</u>	<u>1,283</u>	<u>1,347</u>	<u>1,415</u>	
Total Claims Incurred Including ALAE	\$6,965	\$7,334	\$7,700	\$8,084	\$8,489	
Excess Insurance Premiums	\$0	\$0	\$0	\$0	\$0	
Cost of Security (LOC/Surety)	2	2	2	2	2	
Claims Adjusting Admin Fee (ULAE)						
ULAE (at Expected, NPV @2.50%)	\$406	\$428	\$449	\$472	\$495	
Risk Margin (20%)	<u>81</u>	<u>86</u>	<u>90</u>	<u>94</u>	<u>99</u>	
Total Claims Adjusting Admin Fee	\$487	\$514	\$539	\$566	\$594	
Fixed Expenses						
Management/Program Administration	\$150	\$153	\$200	\$200	\$200	
Claims Auditing	20	20	20	20	20	
Actuarial Services	20	20	20	20	20	
Legal Costs	40	41	42	43	44	
Board of Directors Meetings	40	41	42	43	44	
State License Fee	6	6	6	6	6	
Financial Audit / Tax Return	25	26	27	28	29	
Payroll Audit	10	10	10	10	10	
Up-Front Costs	<u>182</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total Fixed Expenses	\$493	\$317	\$367	\$370	\$373	
Variable Expenses						
	Pct					
Premium Tax	3.00%	\$252	\$259	\$272	\$286	\$299
Fed. Excise Tax (1% Reins., 4% Direct in Captive)	0.83%	72	74	78	82	86
Fronting Fee (10%)	1.40%	<u>122</u>	<u>125</u>	<u>132</u>	<u>138</u>	<u>145</u>
na	0.0%	0	0	0	0	0
na	0.0%	0	0	0	0	0
Total Variable Expenses		\$446	\$458	\$482	\$506	\$530
Premium for Insurance Company Quota Share		\$320	\$336	\$353	\$371	\$390
Total Premium		\$8,706	\$8,953	\$9,435	\$9,890	\$10,369
Total Premium excluding Insurance Company Quota Share		\$8,386	\$8,617	\$9,082	\$9,519	\$9,979

UC Captive
Calendar Years 2012 - 2016

STATEMENT OF FORECASTED REVENUE AND EXPENSES
(\$000's)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>
Revenue						
Total Premium	8,386	8,617	9,082	9,519	9,979	45,583
Consulting Revenue	100	105	110	116	122	553
Other Revenue	0	0	0	0	0	0
Investment Income (at 2.50%)	<u>81</u>	<u>316</u>	<u>468</u>	<u>605</u>	<u>722</u>	<u>2,191</u>
Total Revenues:	<u>8,567</u>	<u>9,038</u>	<u>9,660</u>	<u>10,240</u>	<u>10,823</u>	<u>48,327</u>
Expenses						
<u>Claims Expenses</u>						
Claims Incurred Including ALAE						
Payments During the Year	641	1,450	2,324	3,720	5,036	13,171
Change in Liabilities (at Expected, NPV @2.50%)	5,245	4,828	4,370	3,471	2,658	20,571
Change in Risk Margin (20%)	<u>1,049</u>	<u>966</u>	<u>874</u>	<u>694</u>	<u>532</u>	<u>4,114</u>
Total Claims Incurred Including ALAE	6,935	7,244	7,568	7,885	8,225	37,856
Claims Adjusting Admin Fee (ULAE)						
Payments	333	445	489	525	555	2,347
Change in Liabilities (at Expected, NPV @2.50%)	115	39	21	12	9	196
Change in Risk Margin (20%)	<u>23</u>	<u>8</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>39</u>
Total Claims Adjusting Admin Fee	471	491	514	540	567	2,583
Excess Insurance Premiums	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Claims Expenses:	<u>7,406</u>	<u>7,735</u>	<u>8,082</u>	<u>8,424</u>	<u>8,792</u>	<u>40,439</u>
<u>General and Administrative Costs</u>						
Premium Tax	252	259	272	286	299	1,368
Fed. Excise Tax (1% Reins., 4% Direct in Captive)	72	74	78	82	86	392
Fronting Fee (10%)	122	125	132	138	145	662
Cost of Security (LOC/Surety)	2	2	2	2	2	10
Management/Program Administration	150	153	200	200	200	903
Claims Auditing	20	20	20	20	20	100
Actuarial Services	20	20	20	20	20	100
Legal Costs	40	41	42	43	44	210
Board of Directors Meetings	40	41	42	43	44	210
State License Fee	6	6	6	6	6	30
Financial Audit / Tax Return	25	26	27	28	29	135
Payroll Audit	10	10	10	10	10	50
Up-Front Costs	<u>182</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>182</u>
Total General and Administrative Costs	<u>941</u>	<u>777</u>	<u>851</u>	<u>878</u>	<u>905</u>	<u>4,352</u>
Total Expenses	<u>8,347</u>	<u>8,512</u>	<u>8,933</u>	<u>9,302</u>	<u>9,697</u>	<u>44,791</u>
Revenue in Excess of Expense	<u>220</u>	<u>526</u>	<u>727</u>	<u>938</u>	<u>1,126</u>	<u>3,536</u>
Percent of Revenue in Excess of Expense that is Taxable	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Provision for Income Tax (35%)	<u>0</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>5</u>
Net Income After Taxes	<u>219</u>	<u>525</u>	<u>726</u>	<u>937</u>	<u>1,124</u>	<u>3,531</u>

UC Captive

FORECASTED BALANCE SHEET

As of December 31, 2012, 2013, 2014, 2015, 2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Assets					
Investments (at fair market value)	8,686	14,414	19,809	24,414	28,306
Cash and Cash Equivalents	965	1,602	2,201	2,713	3,145
Premium Receivable	0	0	0	0	0
Other Receivables	0	0	0	0	0
Federal Income Tax Recoverable	0	0	0	0	0
Deferred Tax Asset	0	0	0	0	0
Prepaid Expenses	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Assets:	<u>9,651</u>	<u>16,016</u>	<u>22,010</u>	<u>27,126</u>	<u>31,451</u>
Liabilities					
Provision for Loss & ALAE:					
Expected (NPV @2.50%)	5,245	10,073	14,442	17,913	20,571
Risk Margin (NPV @2.50%)	<u>1,049</u>	<u>2,015</u>	<u>2,888</u>	<u>3,583</u>	<u>4,114</u>
Total Losses and ALAE	6,294	12,087	17,330	21,495	24,685
Unallocated Loss Adjustment Expenses (ULAE)					
Expected (NPV @2.50%)	115	154	175	187	196
Risk Margin (NPV @2.50%)	<u>23</u>	<u>31</u>	<u>35</u>	<u>37</u>	<u>39</u>
Total ULAE	138	185	210	224	235
Other					
Unearned Premium	0	0	0	0	0
Premium Taxes Payable	0	0	0	0	0
Deferred Tax Liability	0	0	0	0	0
Accrued Expenses	0	0	0	0	0
Due to Broker for Unsettled Purchases	0	0	0	0	0
Liability for Insurance Deposit	0	0	0	0	0
Deferred Revenue	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Other	0	0	0	0	0
Total Liabilities	<u>6,432</u>	<u>12,272</u>	<u>17,540</u>	<u>21,720</u>	<u>24,920</u>
Net Equity & Capital					
Capital Contribution	3,000	3,000	3,000	3,000	3,000
Net Equity from Operations	219	744	1,470	2,407	3,531
Total Net Equity & Capital	<u>3,219</u>	<u>3,744</u>	<u>4,470</u>	<u>5,407</u>	<u>6,531</u>
Total Liabilities & Equity	<u>9,651</u>	<u>16,016</u>	<u>22,010</u>	<u>27,126</u>	<u>31,451</u>

UC Captive

Statement of Forecasted Cash Flows
Calendar Years 2012, 2013, 2014, 2015, 2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>
Cash Flows from Operating Activities						
Premium	8,386	8,617	9,082	9,519	9,979	45,583
Investment Income	81	316	468	605	722	
Expense Paid	(1,916)	(2,672)	(3,665)	(5,123)	(6,496)	
Income Tax	<u>(0)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	
Net Increase in Cash	6,551	6,260	5,885	5,000	4,203	<u>27,898</u>
Cash and Equivalents, beginning of period	<u>0</u>	<u>6,551</u>	<u>12,811</u>	<u>18,695</u>	<u>23,695</u>	
Cash and Equivalents, end of year	<u>6,551</u>	<u>12,811</u>	<u>18,695</u>	<u>23,695</u>	<u>27,898</u>	

UC Captive

Loss & ALAE

AS OF DECEMBER 31, 2012, 2013, 2014, 2015, 2016

	Program Year						
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>	
Ultimate Loss & ALAE							
Undiscounted	6,648	6,980	7,329	7,695	8,080	36,732	
Net Present Value 2.50%	5,804	6,112	6,418	6,737	7,074	32,145	
Loss & ALAE Payments							
1/12 - 12/12	641	n/a	n/a	n/a	n/a	641	
1/13 - 12/13	777	673	n/a	n/a	n/a	1,450	
1/14 - 12/14	801	816	707	n/a	n/a	2,324	
1/15 - 12/15	1,279	842	857	742	n/a	3,720	
1/16 - 12/16	1,130	1,343	884	900	779	5,036	
Loss & ALAE Liabilities							Total Undisc. Total NPV
@12/12	6,007	n/a	n/a	n/a	n/a	6,007	5,245
@12/13	5,229	6,307	n/a	n/a	n/a	11,536	10,073
@12/14	4,428	5,491	6,622	n/a	n/a	16,541	14,442
@12/15	3,149	4,649	5,765	6,953	n/a	20,516	17,913
@12/16	2,019	3,306	4,882	6,053	7,301	23,560	20,571
Risk Margin							
<u>Undiscounted</u>							
Current Year	1,330	1,396	1,466	1,539	1,616		
Reduction for Payments	(128)	(290)	(465)	(744)	(1,007)		
Total Additional Risk Margin	1,201	1,106	1,001	795	609		
Total Cumulative Risk Margin	1,201	2,307	3,308	4,103	4,712		
<u>Net Present Value @2.50%</u>							
Total Additional Risk Margin	1,049	966	874	694	532		
Total Cumulative Risk Margin	1,049	2,015	2,888	3,583	4,114		
Risk Margin (20%)	20.0%	20.0%	20.0%	20.0%	20.0%		
Claims Payment Rate	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>		
	10%	12%	12%	19%	17%		

UC Captive

Claims Handling Costs (ULAE or TPA Fees)

AS OF DECEMBER 31, 2012, 2013, 2014, 2015, 2016

	Program Year						
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>	
Ultimate ULAE (TPA Fees)							
Undiscounted	465	489	513	539	566	2,572	
Net Present Value 2.50%	406	428	449	472	495	2,250	
% of Loss & ALAE	7%	7%	7%	7%	7%		
ULAE Payments							
1/12 - 12/12	333	n/a	n/a	n/a	n/a	333	
1/13 - 12/13	94	350	n/a	n/a	n/a	445	
1/14 - 12/14	23	99	368	n/a	n/a	489	
1/15 - 12/15	11	24	104	386	n/a	525	
1/16 - 12/16	4	12	25	109	406	555	
ULAE Liabilities							Total Undisc. Total NPV
@ 12/12	132	n/a	n/a	n/a	n/a	132	115
@ 12/13	38	139	n/a	n/a	n/a	176	154
@ 12/14	15	40	145	n/a	n/a	200	175
@ 12/15	4	16	42	153	n/a	214	187
@ 12/16	0	4	17	44	160	225	196
Risk Margin							
<u>Undiscounted</u>							
Current Year	93	98	103	108	113		
Reduction for Payments	(67)	(89)	(98)	(105)	(111)		
Total Additional Risk Margin	26	9	5	3	2		
Total Cumulative Risk Margin	26	35	40	43	45		
<u>Net Present Value @2.50%</u>							
Total Additional Risk Margin	23	8	4	2	2		
Total Cumulative Risk Margin	23	31	35	37	39		
Risk Margin (20%)	20.0%	20.0%	20.0%	20.0%	20.0%		
ULAE Claims Payment Rate	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>		
	72%	20%	5%	2%	1%		

UC Captive

Costs Excluding Loss & Loss Adjustment Expense (\$000's)

	% Loss & <u>ALAE</u>	% Loss&LAE <u>Liabilities</u>	% <u>Contributions</u>	Fixed <u>Cost</u>	<u>Inflation</u>
Excess Insurance Premiums	n/a	0.00%	n/a	n/a	n/a
Premium Tax	n/a	n/a	3.00%	n/a	n/a
Fed. Excise Tax (1% Reins., 4% Direct in Captive)	n/a	n/a	0.83%	n/a	n/a
Fronting Fee (10%)	n/a	n/a	1.40%	n/a	n/a
Cost of Security (LOC/Surety)	n/a	1.50%	n/a	n/a	n/a
Management/Program Administration	n/a	n/a	n/a	150	2%
Claims Auditing	n/a	n/a	n/a	20	2%
Actuarial Services	n/a	n/a	n/a	20	2%
Legal Costs	n/a	n/a	n/a	40	2%
Board of Directors Meetings	n/a	n/a	n/a	40	2%
State License Fee	n/a	n/a	n/a	6	2%
Financial Audit / Tax Return	n/a	n/a	n/a	25	2%
Payroll Audit	n/a	n/a	n/a	10	2%
Up-Front Costs	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>182</u>	-100%
Total:	<u>0.0%</u>	<u>1.5%</u>	<u>5.2%</u>	<u>493</u>	

Other Inputs

Account Name	UC Captive
First Year	2012
Investment Income (Discount) Rate	2.50%
Provision for Income Tax (applies to income generated from expected losses)	35%
Capital Contribution	3,000
Additional Annual Capital Contributions	-
Capital for Cat Loss =>	-
Excess Insurance Expense & Profit	10%
Claims Inflation	5.00%
% Assets Invested	90%
Required Premium / Surplus	20%
Annual Consulting Revenue	100
% Quota Share from RRG to Captive	95%
Are Students UC Affiliates?	Yes
% Students / FAS	35%
% Total Premium Reinsured by Captive	82.5%
% Total Premium Subject to Fronting Fee	14.0%
% Subject to Income Tax	0.4%

<u>Ultimate Loss & LAE (f/Actuarial Study)</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Undiscounted	6,648	6,980	7,329	7,695	8,080
NPV	5,804	6,112	6,418	6,737	7,074
Discount Factor	0.873	0.876	0.876	0.876	0.875
Catastrophic Loss	-				
Payroll	77,370,000	79,690,000	82,080,000	84,540,000	87,080,000
ULAE / (Loss & ALAE)	7.0%				
Risk Margin for Contributions	20.0%	<= same for loss, ALAE and ULAE			
Risk Margin for Liabilities	20.0%				
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>
Loss & ALAE Paid LDF's	10.37	4.69	2.99	1.90	1.44
ULAE Claims Payment Rate	72%	20%	5%	2%	1%

Appendix C

JPA Pro Forma

UC JPA
Calendar Years 2012 - 2016

Calculation of Annual Premium
(*\$000'S*)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Claims Incurred Including ALAE (ex "Other Coverages")					
Loss & ALAE (at Expected, NPV @2.50%)	\$5,082	\$5,353	\$5,622	\$5,902	\$6,197
Risk Margin (20%)	<u>1,016</u>	<u>1,071</u>	<u>1,124</u>	<u>1,180</u>	<u>1,239</u>
Total Claims Incurred Including ALAE	\$6,098	\$6,424	\$6,746	\$7,082	\$7,436
Excess Insurance Premiums	\$0	\$0	\$0	\$0	\$0
Cost of Security (LOC/Surety)	-	-	-	-	-
Claims Adjusting Admin Fee (ULAE)					
ULAE (at Expected, NPV @2.50%)	\$356	\$375	\$394	\$413	\$434
Risk Margin (20%)	<u>71</u>	<u>75</u>	<u>79</u>	<u>83</u>	<u>87</u>
Total Claims Adjusting Admin Fee	\$427	\$450	\$473	\$496	\$521
Fixed Expenses					
Management/Program Administration	\$100	\$102	\$104	\$106	\$108
Claims Auditing	20	20	20	20	20
Actuarial Services	20	20	20	20	20
Legal Costs	20	20	20	20	20
Board of Directors Meetings	1	1	1	1	1
State License Fee	0	0	0	0	0
Financial Audit / Tax Return	20	20	20	20	20
Payroll Audit	10	10	10	10	10
Up-Front Costs	<u>55</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Fixed Expenses	\$246	\$193	\$195	\$197	\$199
Variable Expenses					
	Pct				
Premium/Self-Procurement Tax	0.00%	\$0	\$0	\$0	\$0
Fronting Fees	0.00%	0	0	0	0
Other Charges	0.00%	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Variable Expenses		\$0	\$0	\$0	\$0
Premium for Coverages not Written in JPA	\$1,805	\$1,895	\$1,990	\$2,090	\$2,195
Total Premium	\$8,576	\$8,962	\$9,404	\$9,865	\$10,351
Total Premium Directly Written in JPA	\$6,771	\$7,067	\$7,414	\$7,775	\$8,156

UC JPA
Calendar Years 2012 - 2016

STATEMENT OF FORECASTED REVENUE AND EXPENSES
(\$000's)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>
Revenue						
Total Premium	8,576	8,962	9,404	9,865	10,351	47,158
Consulting Revenue	100	105	110	116	122	553
Investment Income (at 2.50%)	74	300	448	579	690	2,091
Total Revenues:	<u>8,750</u>	<u>9,367</u>	<u>9,962</u>	<u>10,560</u>	<u>11,163</u>	<u>49,802</u>
Expenses						
<u>Claims Expenses</u>						
Claims Incurred Including ALAE						
Payments During the Year	280	710	1,547	2,904	4,179	9,620
Change in Liabilities (at Expected, NPV @2.50%)	4,842	4,726	4,276	3,393	2,593	19,831
Change in Risk Margin (20%)	968	945	855	679	519	3,966
Total Claims Incurred Including ALAE	6,091	6,382	6,678	6,975	7,291	33,417
Claims Adjusting Admin Fee (ULAE)						
Payments	296	404	447	481	508	2,135
Change in Liabilities (at Expected, NPV @2.50%)	102	27	9	-1	-4	133
Change in Risk Margin (20%)	20	5	2	0	-1	27
Total Claims Adjusting Admin Fee	418	436	457	480	504	2,296
Excess Insurance Premiums & Other Premiums	<u>1,805</u>	<u>1,895</u>	<u>1,990</u>	<u>2,090</u>	<u>2,195</u>	<u>9,975</u>
Total Claims Expenses:	<u>8,314</u>	<u>8,713</u>	<u>9,126</u>	<u>9,545</u>	<u>9,990</u>	<u>45,688</u>
<u>General and Administrative Costs</u>						
Premium/Self-Procurement Tax	0	0	0	0	0	0
Fronting Fees	0	0	0	0	0	0
Other Charges	0	0	0	0	0	0
Cost of Security (LOC/Surety)	0	0	0	0	0	0
Management/Program Administration	100	102	104	106	108	520
Claims Auditing	20	20	20	20	20	100
Actuarial Services	20	20	20	20	20	100
Legal Costs	20	20	20	20	20	100
Board of Directors Meetings	1	1	1	1	1	5
State License Fee	0	0	0	0	0	0
Financial Audit / Tax Return	20	20	20	20	20	100
Payroll Audit	10	10	10	10	10	50
Up-Front Costs	55	0	0	0	0	55
Total General and Administrative Costs	<u>246</u>	<u>193</u>	<u>195</u>	<u>197</u>	<u>199</u>	<u>1,030</u>
Total Expenses	<u>8,560</u>	<u>8,906</u>	<u>9,321</u>	<u>9,742</u>	<u>10,189</u>	<u>46,718</u>
Revenue in Excess of Expense	<u>190</u>	<u>461</u>	<u>641</u>	<u>818</u>	<u>974</u>	<u>3,084</u>
Provision for Income Tax (0%)	-	-	-	-	-	-
Net Income After Taxes	<u>190</u>	<u>461</u>	<u>641</u>	<u>818</u>	<u>974</u>	<u>3,084</u>

UC JPA

FORECASTED BALANCE SHEET

As of December 31, 2012, 2013, 2014, 2015, 2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Assets					
Investments (at fair market value)	8,211	13,760	18,964	23,364	27,037
Cash and Cash Equivalents	912	1,529	2,107	2,596	3,004
Premium Receivable	0	0	0	0	0
Other Receivables	0	0	0	0	0
Federal Income Tax Recoverable	0	0	0	0	0
Deferred Tax Asset	0	0	0	0	0
Prepaid Expenses	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Assets:	<u>9,124</u>	<u>15,289</u>	<u>21,071</u>	<u>25,960</u>	<u>30,041</u>
Liabilities					
Provision for Loss & ALAE:					
Expected (NPV @2.50%)	4,842	9,568	13,844	17,237	19,831
Risk Margin (NPV @2.50%)	<u>968</u>	<u>1,914</u>	<u>2,769</u>	<u>3,447</u>	<u>3,966</u>
Total Losses and ALAE	5,811	11,482	16,613	20,685	23,797
Unallocated Loss Adjustment Expenses (ULAE)					
Expected (NPV @2.50%)	102	129	138	137	133
Risk Margin (NPV @2.50%)	<u>20</u>	<u>26</u>	<u>28</u>	<u>27</u>	<u>27</u>
Total ULAE	123	155	165	165	160
Other					
Unearned Premium	0	0	0	0	0
Premium Taxes Payable	0	0	0	0	0
Deferred Tax Liability	0	0	0	0	0
Accrued Expenses	0	0	0	0	0
Due to Broker for Unsettled Purchases	0	0	0	0	0
Liability for Insurance Deposit	0	0	0	0	0
Deferred Revenue	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Other	0	0	0	0	0
Total Liabilities	<u>5,933</u>	<u>11,637</u>	<u>16,778</u>	<u>20,849</u>	<u>23,957</u>
Net Equity & Capital					
Capital Contribution	3,000	3,000	3,000	3,000	3,000
Net Equity from Operations	190	652	1,293	2,110	3,084
Total Net Equity & Capital	<u>3,190</u>	<u>3,652</u>	<u>4,293</u>	<u>5,110</u>	<u>6,084</u>
Total Liabilities & Equity	<u>9,124</u>	<u>15,289</u>	<u>21,071</u>	<u>25,960</u>	<u>30,041</u>

UC JPA

Statement of Forecasted Cash Flows
Calendar Years 2012, 2013, 2014, 2015, 2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>
Cash Flows from Operating Activities						
Premium	8,576	8,962	9,404	9,865	10,351	47,158
Investment Income	74	300	448	579	690	
Expense Paid	(2,627)	(3,202)	(4,179)	(5,671)	(7,082)	
Income Tax	-	-	-	-	-	
Net Increase in Cash	<u>6,024</u>	<u>6,060</u>	<u>5,672</u>	<u>4,773</u>	<u>3,959</u>	<u>26,488</u>
Cash and Equivalents, beginning of period	<u>0</u>	<u>6,024</u>	<u>12,084</u>	<u>17,756</u>	<u>22,529</u>	
Cash and Equivalents, end of year	<u>6,024</u>	<u>12,084</u>	<u>17,756</u>	<u>22,529</u>	<u>26,488</u>	

UC JPA

Loss & ALAE

AS OF DECEMBER 31, 2012, 2013, 2014, 2015, 2016

	Program Year						
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>	
Ultimate Loss & ALAE							
Undiscounted	5,926	6,221	6,533	6,860	7,203	32,743	
Net Present Value 2.50%	5,082	5,353	5,622	5,902	6,197	28,156	
Loss & ALAE Payments							
1/12 - 12/12	280	n/a	n/a	n/a	n/a	280	
1/13 - 12/13	416	294	n/a	n/a	n/a	710	
1/14 - 12/14	801	437	309	n/a	n/a	1,547	
1/15 - 12/15	1,279	841	459	324	n/a	2,904	
1/16 - 12/16	1,130	1,343	884	482	340	4,179	
Loss & ALAE Liabilities							
@12/12	5,646	n/a	n/a	n/a	n/a		Total Undisc. 5,646 Total NPV 4,842
@12/13	5,229	5,927	n/a	n/a	n/a		11,157 9,568
@12/14	4,428	5,490	6,224	n/a	n/a		16,142 13,844
@12/15	3,149	4,649	5,765	6,536	n/a		20,098 17,237
@12/16	2,019	3,306	4,882	6,054	6,863		23,122 19,831
Risk Margin							
<u>Undiscounted</u>							
Current Year	1,185	1,244	1,307	1,372	1,441		
Reduction for Payments	(56)	(142)	(309)	(581)	(836)		
Total Additional Risk Margin	1,129	1,102	997	791	605		
Total Cumulative Risk Margin	1,129	2,231	3,228	4,020	4,624		
<u>Net Present Value @2.50%</u>							
Total Additional Risk Margin	968	945	855	679	519		
Total Cumulative Risk Margin	968	1,914	2,769	3,447	3,966		
Risk Margin (20%)	20.0%	20.0%	20.0%	20.0%	20.0%		
Claims Payment Rate	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>		
	5%	7%	14%	22%	19%		

UC JPA

Claims Handling Costs (ULAE or TPA Fees)
AS OF DECEMBER 31, 2012, 2013, 2014, 2015, 2016

	Program Year						
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>	
Ultimate ULAE (TPA Fees)							
Undiscounted	415	435	457	480	504	2,291	
Net Present Value 2.50%	356	375	394	413	434	1,972	
% of Loss & ALAE	7%	7%	7%	7%	7%		
ULAE Payments							
1/12 - 12/12	296	n/a	n/a	n/a	n/a	296	
1/13 - 12/13	94	310	n/a	n/a	n/a	404	
1/14 - 12/14	23	99	325	n/a	n/a	447	
1/15 - 12/15	11	24	104	342	n/a	481	
1/16 - 12/16	4	12	25	109	359	508	
ULAE Liabilities							
						Total Undisc.	Total NPV
@ 12/12	119	n/a	n/a	n/a	n/a	119	102
@ 12/13	25	125	n/a	n/a	n/a	150	129
@ 12/14	3	26	132	n/a	n/a	161	138
@ 12/15	(9)	3	28	138	n/a	160	137
@ 12/16	(12)	(9)	3	29	145	156	133
Risk Margin							
<u>Undiscounted</u>							
Current Year	83	87	91	96	101		
Reduction for Payments	(59)	(81)	(89)	(96)	(102)		
Total Additional Risk Margin	24	6	2	(0)	(1)		
Total Cumulative Risk Margin	24	30	32	32	31		
<u>Net Present Value @2.50%</u>							
Total Additional Risk Margin	20	5	2	(0)	(1)		
Total Cumulative Risk Margin	20	26	28	27	27		
Risk Margin (20%)	20.0%	20.0%	20.0%	20.0%	20.0%		
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>		
ULAE Claims Payment Rate	71%	23%	5%	3%	1%		

UC JPA

Costs Excluding Loss & Loss Adjustment Expense (\$000's)

	% Loss & <u>ALAE</u>	% Loss&LAE <u>Liabilities</u>	% <u>Contributions</u>	Fixed <u>Cost</u>	<u>Inflation</u>
Excess Insurance Premiums	n/a	0.00%	n/a	n/a	n/a
Premium/Self-Procurement Tax	n/a	n/a	0.00%	n/a	n/a
Fronting Fees	n/a	n/a	0.00%	n/a	n/a
Other Charges	n/a	n/a	0.00%	n/a	n/a
Cost of Security (LOC/Surety)	n/a	0.00%	n/a	n/a	n/a
Management/Program Administration	n/a	n/a	n/a	100	2%
Claims Auditing	n/a	n/a	n/a	20	2%
Actuarial Services	n/a	n/a	n/a	20	2%
Legal Costs	n/a	n/a	n/a	20	2%
Board of Directors Meetings	n/a	n/a	n/a	1	2%
State License Fee	n/a	n/a	n/a	0	2%
Financial Audit / Tax Return	n/a	n/a	n/a	20	2%
Payroll Audit	n/a	n/a	n/a	10	2%
Up-Front Costs	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>55</u>	-100%
Total:	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>246</u>	

Other Inputs

Account Name	UC JPA
First Year	2012
Investment Income (Discount) Rate	2.50%
Provision for Income Tax	0%
(applies to income generated from expected losses)	
Initial Capital Contribution	3,000
Excess Insurance Expense & Profit	10%
Claims Inflation	5%
% Assets Invested	90%
Required Premium / Surplus	0%
Annual Consulting Revenue	100

<u>Ultimate Loss & LAE (f/Actuarial Study)</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Undiscounted	5,926	6,221	6,533	6,860	7,203
NPV	5,082	5,353	5,622	5,902	6,197
Discount Factor	0.858	0.860	0.861	0.860	0.860
Payroll	77,370,000	79,690,000	82,080,000	84,540,000	87,080,000
ULAE / (Loss & ALAE)	7.0%				
Risk Margin for Contributions	20.0%	<= same for loss, ALAE and ULAE			
Risk Margin for Liabilities	20.0%				
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>
Loss & ALAE Paid LDF's	21.16	8.51	3.96	2.13	1.52
ULAE Claims Payment Rate	71%	23%	5%	3%	1%

UC JPA

Costs by Coverage

(\$000's)

	2012	2013	2014	2015	2016
All Coverages in JPA					
Premium Paid by UC	7,339	7,706	8,091	8,496	8,921
Ultimate Loss & ALAE: Undiscounted	5,926	6,221	6,533	6,860	7,203
Ultimate Loss & ALAE: NPV	5,082	5,353	5,622	5,902	6,197
Ultimate Loss & ALAE: Discount Factor	0.858	0.860	0.861	0.860	0.860
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	
same for loss, ALAE and ULAE ==>	0.0%	10.0%	20.0%	3.1%	
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>
Loss & ALAE Paid LDF's	21.16	8.51	3.96	2.13	1.52
ULAE Claims Payment Rate	71.2%	22.7%	5.4%	2.7%	0.9%
Total Excluding Additional Direct Coverages					
Ultimate Loss & ALAE: Undiscounted	5,382	5,650	5,933	6,230	6,541
Ultimate Loss & ALAE: NPV	4,538	4,782	5,022	5,272	5,535
WC \$5x5M					
Premium Paid by UC	120	126	132	139	146
Ultimate Loss & ALAE: Undiscounted	108	113	119	125	131
Ultimate Loss & ALAE: NPV	100	96	101	106	111
Ultimate Loss & ALAE: Discount Factor	0.846	0.846	0.846	0.846	0.846
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	<u>75.0%</u>
HPL \$5x5M					
Premium Paid by UC	1,943	2,040	2,142	2,249	2,361
Ultimate Loss & ALAE: Undiscounted	1,749	1,836	1,928	2,024	2,125
Ultimate Loss & ALAE: NPV	1,573	1,554	1,632	1,713	1,798
Ultimate Loss & ALAE: Discount Factor	0.846	0.846	0.846	0.846	0.846
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	<u>65.0%</u>
EPL \$5x5M					
Premium Paid by UC	698	732	769	808	848
Ultimate Loss & ALAE: Undiscounted	628	659	692	727	763
Ultimate Loss & ALAE: NPV	499	558	586	615	646
Ultimate Loss & ALAE: Discount Factor	0.846	0.846	0.846	0.846	0.846
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	<u>65.0%</u>
GL \$7.5x2.5M					
Premium Paid by UC	3,043	3,196	3,356	3,523	3,700
Ultimate Loss & ALAE: Undiscounted	2,739	2,876	3,020	3,171	3,330
Ultimate Loss & ALAE: NPV	2,237	2,434	2,556	2,683	2,818
Ultimate Loss & ALAE: Discount Factor	0.846	0.846	0.846	0.846	0.846
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	<u>65.0%</u>
AL \$7.5x2.5M					
Premium Paid by UC	175	184	193	203	213
Ultimate Loss & ALAE: Undiscounted	158	166	174	183	192
Ultimate Loss & ALAE: NPV	129	140	147	155	162
Ultimate Loss & ALAE: Discount Factor	0.846	0.846	0.846	0.846	0.846
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	<u>65.0%</u>
Other Coverages in JPA					
Premium Paid by UC	1,360	1,428	1,499	1,574	1,653
Ultimate Loss & ALAE: Undiscounted	544	571	600	630	662
Ultimate Loss & ALAE: NPV	544	571	600	630	662
Ultimate Loss & ALAE: Discount Factor	1.000	1.000	1.000	1.000	1.000
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	
same for loss, ALAE and ULAE ==>	0.0%	10.0%	20.0%	29.3%	
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>
Loss & ALAE Paid LDF's	2.00	1.00	1.00	1.00	1.00
ULAE Claims Payment Rate	100%	0%	0%	0%	0%
Coverages Not Included in JPA					
Premium Paid by UC	1,805	1,895	1,990	2,090	2,195
Ultimate Loss & ALAE: Undiscounted	722	758	796	836	878
Ultimate Loss & ALAE: NPV	722	758	796	836	878
Ultimate Loss & ALAE: Discount Factor	1.000	1.000	1.000	1.000	1.000
Ultimate Loss & ALAE: Risk Margin	<u>Expected</u>	<u>60%</u>	<u>70%</u>	<u>75%</u>	
same for loss, ALAE and ULAE ==>	0.0%	10.0%	20.0%	29.3%	
	<u>12</u>	<u>24</u>	<u>36</u>	<u>48</u>	<u>60</u>
Loss & ALAE Paid LDF's	2.00	1.00	1.00	1.00	1.00
ULAE Claims Payment Rate	100%	0%	0%	0%	0%
Other Coverages	Total Prem	Captive Share	Loss Ratio	Fronting Fee	UC Premium
FAS (1st Party, Direct)	-	100%	40%	0%	-
FAS (1st Party, Direct)	1,150	100%	40%	0%	1,150
Cyber Liability (1st Party, Not in JPA)	525	100%	40%	0%	525
pus Connexions ex FAS (3rd Party, Not in JPA)	700	80%	40%	10%	560
TULIP (3rd Party, not in JPA)	150	80%	40%	10%	120
Builders Risk (3rd Party, not in JPA)	750	80%	40%	10%	600
Marine (1st Party, Direct)	210	100%	40%	0%	210

Appendix D

Cost Comparison

Cost Comparison – Five Year

(\$000's)

Appendix D

Element	Program	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Total
Revenue (Money Paid by UC)	Captive	8,386	8,617	9,082	9,519	9,979	45,583
	JPA	8,576	8,962	9,404	9,865	10,351	47,158
	Current	9,144	9,602	10,082	10,587	11,117	50,532
Other Revenue (Reinsurance, Investment Income, Consulting Revenue)	Captive	181	421	578	721	844	2,744
	JPA	174	405	558	695	812	2,644
	Current	0	0	0	0	0	0
Claims Expense	Captive	7,406	7,735	8,082	8,424	8,792	40,439
	JPA	8,314	8,713	9,126	9,545	9,990	45,688
	Current	0	0	0	0	0	0
Other Expense (including premiums)	Captive	941	777	851	878	905	4,352
	JPA	246	193	195	197	199	1,030
	Current	9,144	9,602	10,082	10,587	11,117	50,532
Profit (Pre-Tax)	Captive	220	526	727	938	1,126	3,536
	JPA	190	461	641	818	974	3,084
	Current	0	0	0	0	0	0
Initial Capital Contribution	Captive	3,000	-	-	-	-	3,000
	JPA	3,000	na	na	na	na	3,000
	Current	0	na	na	na	na	0
Surplus	Captive	3,219	3,744	4,470	5,407	6,531	
	JPA	3,190	3,652	4,293	5,110	6,084	
	Current	0	0	0	0	0	

- Advantage of captive vs. current program is calculated as follows:
 - Difference in “revenue” paid by UC (\$45,583 captive vs. \$50,532 current)
 - Minus difference in initial capital contributions (\$3,000 captive vs. \$0 current)
 - Plus difference in final surplus (\$6,531 captive vs. \$0 current)
 - Captive advantage = \$8.5M undiscounted, \$7.3M NPV (@3.0%)

Option 5. Foreign multi-owner (group) captive.

Discussion:

This is the other component of the “tandem” programs mentioned in the RRG (Option 2) discussion. The concept is to use the onshore RRG as a controlled “fronting” carrier and to reinsure most of the risk to the offshore captive. In this structure, the RRG and the offshore captive generally have the same owners. Although the RRG is taxable, most of its income is eliminated via deduction of the reinsurance premiums paid to the companion offshore reinsurer. The offshore group reinsurer, in turn, typically can avoid federal income tax on imputed foreign income.

Conclusion: Not viable here as designed for several or more unrelated parties collectively creating a risk sharing program; also limited to funding of third party liability risks if a RRG is used as its “fronting” carrier.