



Captive Insurance Company Reports

Healthcare Reform: Major Captive Opportunities and Challenges

Editor's Note: This was contributed to *CICR* by **Michael Maglaras**, principal of Michael Maglaras & Company, a captive consulting firm in Connecticut specializing in medical professional liability captives.

The captive and commercial insurance markets will be faced with major changes because of the new American healthcare model. Astute captive practitioners already see the horizon. Besides the well-documented challenges, captive practitioners also see opportunity. This article will enlighten *CICR* readers about both of these issues.

Much has been written about healthcare reform and its far-reaching impact on the way we will all purchase health insurance and will be covered by that insurance. But little has been written yet about the impact on the commercial and captive insurance industries, particularly on medical professional and general liability insurance. The effects of healthcare reform and the enormity of the changes and regulations it will bring—even if modified through direct legal challenges or the election of a new president in 2012—will have wide-

reaching effects on the captive insurance industry. In fact, *many of us are predicting a new renaissance in the growth of captives as a direct result of healthcare reform*, even if the original package signed into law by President Barack Obama in March 2010 is modified, scaled back, or, in fact, repealed.

The way that Americans are covered by health insurance, purchase health insurance, and the relationship we have with our healthcare providers will change. *But here is what's really important for those of us in the captive industry: the way our healthcare providers are covered by professional liability insurance will change dramatically and within the next 18 months.* We need to prepare ourselves for an explosion in growth in new captive licenses and existing captive balance sheets.

What Is This Thing Called "Healthcare Reform"?

On March 23, 2010, President Obama signed the Patient Protection and Affordable Care Act and, 7 days later, the Health Care and Education Reconciliation Act of 2010. Both of

Also in this issue

Bermuda Captive Survey



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these are now commonly referred to collectively as “PPACA.”

The signing of both these laws, and their enactment, has caused a great deal of controversy, especially after the November 2010 elections. There has been much speculation about exactly how much of PPACA would eventually be implemented and whether or not many of the key provisions of these laws, individually or collectively, would be overturned with



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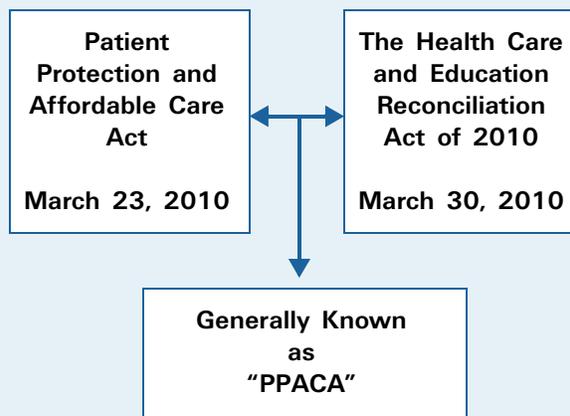


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Figure 1
What's the Law?

Health Care Reform *The New Rules and the New Risks*

What's the Law



a new Republican majority in the House. The jury is still very much out on this one.

More importantly, the multiple state legal challenges now being mounted threaten to call into question the constitutionality of several parts of PPACA, most notably that section of PPACA providing for the mandatory purchase of health insurance to be gradually phased in as part of the year-by-year unrolling of this massive legislative effort.

Many in the captive industry—captive managers, underwriters, actuaries, and consultants—have been debating whether this law will have much impact, for example, on the way in which liability insurance is underwritten and the way liability insurance coverages (long a self-insurance opportunity for acute care hospital systems, in particular) would be insured post-PPACA. I’ve spoken with many excess liability and reinsurance underwriters, particularly in the London market, and it’s clear that many are adopting a “wait-and-see” attitude toward healthcare reform and

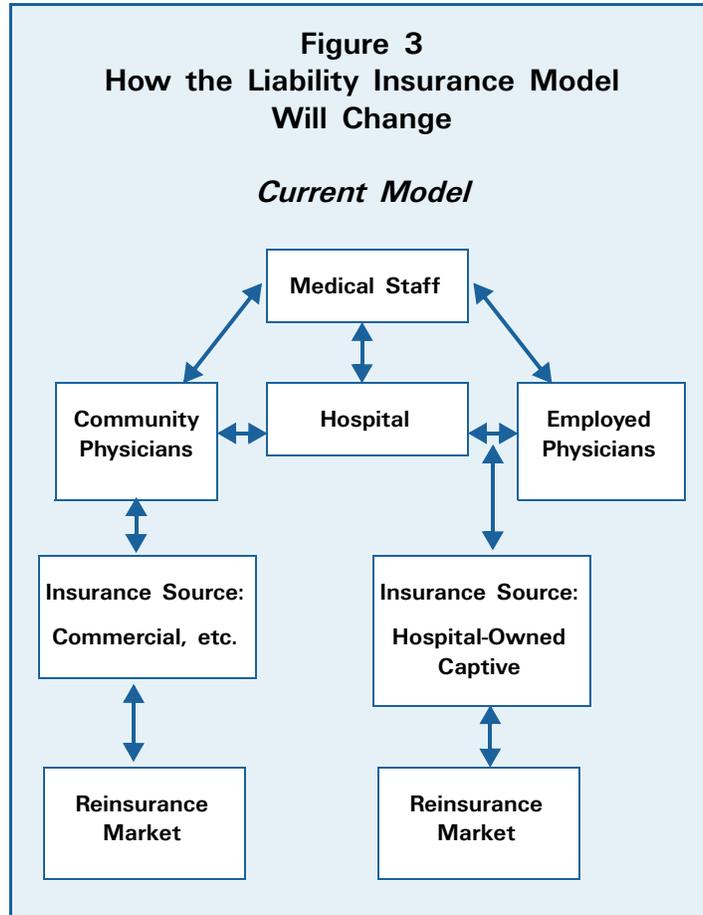
the impact it's expected to have on medical professional liability insurance and reinsurance capacity.

Unfortunately for those underwriters adopting this "wait-and-see" attitude, all around us *the liability insurance market is dramatically changing, and captives will be on the frontline of that change.* Among the individual hospital and hospital system clients of our firm alone, active plans are underway to collectively recruit more than 2,500 new physicians into employment before the end of calendar 2012. Multiply this strategy by 5,500 hospitals nationally, and you can begin to see where we're going with regard to the impact on the captive industry. This means that the odds are pretty good that your primary care physician will not be a private practitioner in 2012, and instead will be the employee of a hospital system.

Simply put, that practitioner will stop buying commercial liability insurance coverage, and the importance of ceasing that purchase will have a wide-ranging effect on the future of captives. For that practitioner will leap out of the commercial market and land right in the middle of an existing or new hospital-owned captive program. Figure 2 shows some of the physician specialties that will be most affect-

Figure 2
Where Could the Growth in Physician Exposures Come From?

Significant Likelihood	Moderate Likelihood	Little Likelihood
<ul style="list-style-type: none"> • Internal Med. • Anesthesiology • Emergency Med. • Pathology • Radiology • Hospitalists • Intensivists • Neonatologists • Bariatric Surgery • Neurosurgery 	<ul style="list-style-type: none"> • General Surgery • Cardiology • Orthopaedics • Hem./Onc. • ENT • OB/GYN 	<ul style="list-style-type: none"> • Pediatrics • Family Med. • Dermatology • Psychiatry • Allergy



ed by hospital alignment strategies under healthcare reform.

As these practitioners drop out of the commercial market and are absorbed by captives, they will have to be underwritten by someone. A decision will need to be made about the purchase of tail coverage or the extension of retroactive coverage. The claims management function will grow exponentially. The captive management function will take on new importance. Actuaries will be required to estimate increased exposure and increased liability, and the position of hospital risk manager will take on new importance.

Right now, the current insurance model looks a little different. A hospital's medical staff is composed of both employed physicians and community-based, non-employed physicians. As these community physicians become employed, they cease to be underwritten by the

commercial market, and the reinsurers of these underwriters lose volume as well. The good news for reinsurance underwriters is that much of this capacity can shift, under the right circumstances, to the support of hospital-owned captives. *The big losers here will be physician-owned insurers and certain regional commercial physician insurance companies.* Their base of insureds will decrease under healthcare reform.

Why Do We Need Healthcare Reform?

Many would argue that the way we insure ourselves for health benefit coverage in the United States needs fixing. Others would also argue that nothing is wrong with any part of this process. Whether this healthcare reform package of laws and regulations changes our position on these issues in any way has yet to be seen. However, a few things are absolutely clear, and these things transcend politics and divisiveness.

First, healthcare costs in our country are completely unmanageable. Medicaid costs alone grew 9.9 percent in 2009—the largest growth since 2002. In 2009, U.S. healthcare costs in general rose 5.7 percent to \$2.5 trillion in annual expenditure. At the beginning of 2010, *healthcare costs jumped to become 17.3 percent of our gross domestic product*—that number being the largest jump since 1960. (To put this in some kind of perspective, in 2010, we spent 4.6 percent of our gross domestic product on military spending.)

Experts have predicted that, if unchecked, healthcare costs will rise in 2019 to \$4.5 trillion, or 19.3 percent of our gross domestic product. In short, and in the kind of economy that has become the new reality here in the United States, this type of annual growth in expense, regardless of what the money is spent on, simply cannot be sustained in an economy with clearly lowered expectations.

Then there is the quality issue ... and if there is one thing that the new healthcare reform package focuses on (other than availability

and affordability of health insurance) it is the quality of care. Unfortunately, even with the intensely competitive and market-driven environment in which health care exists in our country, and the great strides we have made in improving the quality of outcomes for patients, we continue to lag behind.

Life expectancy in the United States is ranked thirty-eighth in the world; in fact, among the economic powerhouses of the world (known as the G-7), our life expectancy lies at the very bottom of that group of 7. The rate of U.S. infant mortality currently hovers around 6.2 deaths per 1,000 live births. To contrast this with other parts of the world: in Singapore, the rate is 2.3; in the United Kingdom, 4.9; in Cuba, 5.8; and in Angola, 180.2.

When it comes to actual healthcare spending, on a per capita basis, *at the beginning of 2010, we spent almost \$8,000 per citizen on healthcare expense.* In Switzerland, that number was about \$3,700, and with an infant mortality rate of 4.1 (as compared to our 6.2). In France, healthcare per capita spending was just a little above \$3,000, with an accompanying infant mortality rate of 3.3.

One of the central points of the healthcare reform package is the improvement of quality. Improving the quality of patient outcomes and safety in our country is needed, and it's important to point out that while acute-care hospitals, in particular, have made great strides in this regard, there is still a long way to go. The healthcare reform package focuses primarily on quality, and it is in that focus, with its heavy emphasis on physician alignment, where we can begin to understand the opportunity for the captive insurance industry.

Looking at our fellow citizens, 157 million now obtain private health insurance coverage (although it is important to point out that much of that private coverage includes inadequate coverage terms and conditions, significant coinsurance requirements, or limitations on lifetime coverage). All persons over 65 and

younger adults with permanent disabilities are insured by Medicare. By the way, one of the concerns expressed by many about healthcare reform is that it “puts the federal government in the business of insurance.” While many of us wish that were not the case, I have to comment that this horse has long been out of the barn.

On January 1, 2011, 40 million more persons became eligible for Medicare, and on that date, Medicare became the largest insurer of American citizens by a significant margin. The federal government has already been in the health insurance business for a long time, so the “keep the Feds out of the insurance business” argument just doesn’t hold water anymore.

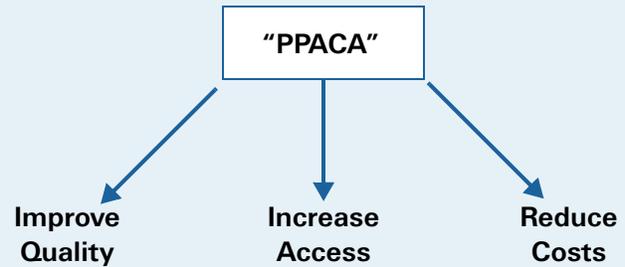
Low-income persons have access to Medicaid, of course, and something known as the Children’s Health Insurance Program (CHIP), which insures over one-third of all U.S. children. Still, for many others (including noncitizens), there is a combination of expensive heavy hospital emergency department usage and the use of community health centers, etc., all being visited as part of their daily lives. In fact, *46 million persons (16 percent of our population) have no health insurance at all and have no access to it.* On top of this, despite some of the quality issues raised above, *the average yearly annual health insurance premium for a family of four is now approaching \$13,000 a year*—a cost which, in the current economic environment, is all but unsustainable for many millions of our fellow citizens. This figure also indicates, unfortunately, given our life expectancy and infant mortality ratings on the world stage, that we simply don’t get enough bang for our buck.

What Healthcare Reform Really Means for Captives

While there are some clear implications in healthcare reform for those interested in writing employee benefits through captives, this article is about medical professional liability insurance. The sum and substance of the

Figure 4
PPACA Goals

Health Care Reform ***The News Rules and the New Risks***



healthcare reform package passed into law in March 2010 has been widely discussed and written about. But if we are to frame this discussion in the context of what it means to the development and maintenance of captive insurance companies, a little background is essential.

Simply put, the healthcare reform package is supposed to improve quality, increase access, and reduce costs. What’s also important to understand about healthcare reform is that there is a rollout, between now and the end of 2015, of all of the key provisions in the healthcare reform package. Without going into great detail, among these provisions are the establishment high-risk pools for those with preexisting conditions, the extension of dependent coverage for adult children up to 26 years of age, a prohibition against insurers limiting lifetime benefits, tax credits for small employers with a maximum of 25 employees, and a host of other meaningful provisions to be rolled out through 2015. Even included in PPACA is a 5-year professional liability demonstration grant provided to develop tort litigation initiatives, although this is not a well-funded program, and—as many of us who deal with medical malpractice litigation can attest—is probably too little too late.

What will change the face of the healthcare liability insurance industry will be the creation of accountable care organizations (ACOs).

Single-Parent Captives: Prepare for an Explosion in Growth

Buried in the key provisions to be rolled out fully in 2012 are a number of significant patient quality initiatives. One of these calls for the development of ACOs, and it is in the ACO concept in which the distinct and remarkable connection lies between healthcare reform and captives. We are about ready to undergo (and in fact are undergoing as I write this) a remarkable change in the way healthcare delivery is provided in the United States. *The use of ACOs to align physicians and hospitals is the key issue that the captive industry should focus on in 2011 and beyond.*

What Are Accountable Care Organizations?

It's important to note just exactly what an ACO can be composed of and what it's supposed to accomplish. First, what it can accomplish.

An ACO can be composed of a hospital and its voluntary attending physicians (community

physicians in private practice) in an employment model, where what used to be physicians in private practice actually go to work for a hospital or hospital system and give up their private practice status. An ACO can also be composed of groups of physicians coming together independently by themselves, without an acute-care facility involved in any part of this process. A partnership or joint venture model between hospitals and physicians, short of an employment model, where both sides have made an investment in an ACO structure, can also work, with the idea that physicians in that structure could retain their private practice status.

This is all about money. One of the key features in healthcare reform, as it relates to the Medicare program in particular (take a look at the numbers above relative to who will be eligible for Medicare in 2011 and beyond), is the ability for the entities or members constituting an ACO to share in the cost savings that they deliver through increases in the quality of care, in the achievement of quality benchmarks, and in the reduction of medical errors. This is all about "pay for performance," and the smart money right now is on the rapid creation of these ACOs, even if there are serious legal and other challenges to other aspects of the healthcare reform package.

In other words, regardless of what happens to healthcare reform—whether the challenge is legal or legislative—I don't know of a single hospital CEO who has ceased to develop his or her physician alignment strategy.

Currently, all over the United States, even in the absence of clear guidance about how an ACO structure will work and how it will even look over time, hospitals and hospital systems are reaching out to physicians in private practice. Much of this "reaching out" includes employment offers so that hospitals can control future streams of revenue to a greater degree as the healthcare reform package moves into full swing in 2011. This is not something that will occur gradually; it will occur very quickly. In fact, if you are going to

**Figure 5
Health Care Reform
ACOs: The Structure To Watch**

Accountable Care Organizations

- Sets accountability standards for patient results
- Models can be integrated delivery systems; multi-specialty group practices; physician/hospital organizations; virtual organizations for data collection
- Ultimate goal: ability to respond to any new payment mechanism
- Incentives to reduce patient admissions and re-admissions

form an accountable care organization under PPACA, you have to do it by no later than the end of 2012.

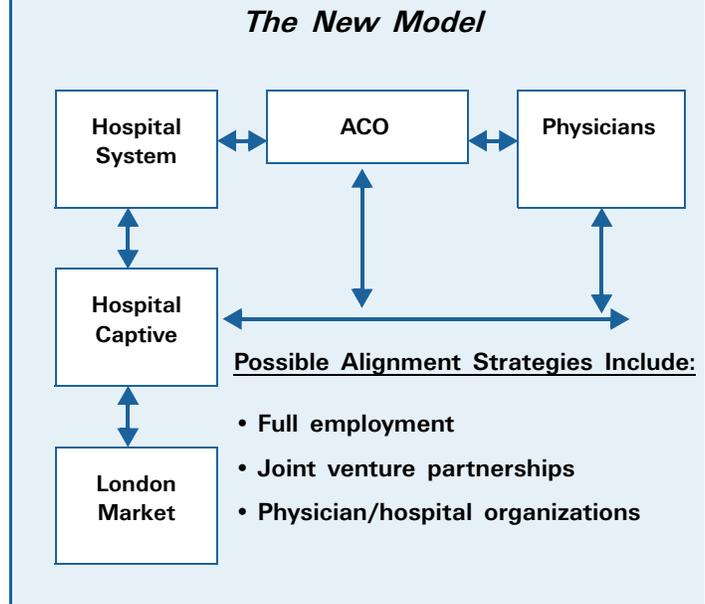
So, what's all this mean for the insurance, re-insurance, risk management, and captive industries? It means plenty. It's important first to remember that in all the major domiciles, captives owned by acute-care hospitals (whether taxable or tax-exempt) make up a significant number of the existing captives licensed. This is particularly true of single-parent pure captives, long a staple of the industry and, candidly, the type of captive that we in the captive industry concern ourselves with the least. In Vermont alone, 16 percent of the captives actively licensed are owned by healthcare providers, with the vast majority of these parents being tax-exempt. *Under healthcare reform, and in particular ACO strategies, these captives will expand, become more important, demand a greater array of services, and will be at the forefront of bolstering key parts of the ACO idea.*

How Will Captives Expand under These Alignment Strategies?

The old physician/hospital insurance model, shown graphically above, will be transformed into a model with little or no reliance on the commercial markets that have traditionally insured physicians in private practice. In Figure 6, the most probable structure is shown—one where the hospital's physicians and the hospital entity itself form the basis of the ACO. It's logical to assume that in that environment, the hospital's existing captive will take on new complexity and importance.

The majority of physicians in private practice are insured through insurance companies in which they either have an ownership interest (such as the old so-called bedpan mutuals) or by commercial insurers who have carved out large sections of the national and regional physician population. It's very important to note that these insurers traditionally have had very little in the way of a business rela-

Figure 6
How the Insurance Delivery Model Will Change



tionship with acute-care hospitals. There are some obvious reasons for this.

Since the late 1970s and early 1980s, hospitals have increasingly gravitated toward the development of captive insurance companies. As they have done this, they have reduced their reliance on the commercial insurance and reinsurance market, particularly in the primary and working layers of professional and general liability insurance. Additionally, and every day of the week, hospital captives are "doing battle" by means of claims litigation with the very insurers who insure their privately employed medical staffs.

In over 48 percent of the claims made against acute-care facilities, a community physician in private practice is *also* named. This results in two insurers being involved in a single claim (the hospital's captive being one insurer, and the physician's commercial insurer being the other), and all the antagonism that can be assumed to be in place in the claim adjustment process when this occurs is evi-

dent. Under ACOs, this kind of structure will start to go away: one claim, where the hospital and a physician are named, and the whole thing defended and adjusted by the hospital's wholly owned captive insurer. I know of no better blueprint for captive growth than that idea.

What we will have, almost overnight (and this is no exaggeration), is a sharp uptick in employed physician exposures as these exposures relate to the way hospitals calculate the premiums charged by their own wholly owned subsidiary captive insurers. Clearly, what this means is that the large captives now owned by hospitals will get larger. Of necessity, they will get larger because the physician exposure component will dramatically increase as hospitals go directly into the market and hire the physicians with whom they used to have essentially an arm's length business relationship.

The Tail versus Retroactive Coverage Problem

In those areas where there is significant hospital competition, hospitals will be competing for primary care physicians, cardiologists, anesthesiologists, radiologists, and others in private practice. One of the ways they will compete is to agree to *absorb the prior acts coverage of physicians insured in the existing commercial marketplace. They will do this to encourage physicians, who would otherwise have to make a significant expenditure for tail coverage, to join the alignment strategy.* The underwriting and balance sheet implications for single-parent captives writing retroactive coverage are enormous.

In most jurisdictions, the purchase of tail coverage can easily cost between 135 and 175 percent of the physician's existing mature claims-made premium. In a two-hospital town, if one hospital is going to be a stickler and require that a physician buy tail coverage from his or her commercial insurer prior to becoming employed by the hospital, what could happen is that the other hospital down the street, with perhaps a more liberal underwriting attitude

and more usable surplus in its captive, could agree to absorb the prior acts coverage of that same physician, in some cases, with as much as a 15 to 20 year prior retroactive date—all as an incentive to induce employment and quickly gain the upper hand in the competitive healthcare environment where there are only so many community-based physicians to go around.

The tax, regulatory, and stark implications aside in offering prior acts coverage to physicians, one thing is clear: *if a hospital with an existing single-parent captive increases its employed physician base by 75, 100, or more physicians in the next 12 to 18 months, that captive is going to take on a significant amount of new liability. There will be strains on surplus. Tail accruals in captives will increase.* The liability side of the captive's balance sheet will become larger and more problematic, while the hospital risk managers managing this entire process will find themselves on the cutting edge of one important aspect of healthcare reform.

I know of no other industry in which, over the next 5 years, the risk manager's job will be more important.

So What's the Real Impact on the Captive Industry?

Many think the impact will be enormous. We are in the midst of a prolonged soft medical professional liability market crisis, which is largely the result of reduced claim severity because of vast improvements in the quality of care (even though, as noted above, we still have a long way to go). There have always been essentially two ways to reduce medical professional liability claims activity: massive and effective tort reform being one, and greatly improved quality of outcomes being the other. It is the latter that is driving this prolonged soft market cycle.

Hospital risk managers are skilled and trained in dealing with acute care risk management, insurance, and risk financing issues

FIGURE 7 EXPECTED IMPACT ON CAPTIVES FROM HEALTHCARE REFORM

- Greatly increased use of captives by hospitals as part of the physician/hospital healthcare reform alignment strategy.
- Increased general and administrative expense burdens placed on captives to fund risk reduction and quality initiatives in the furtherance of the improvement of quality required under healthcare reform and in support of the “pay for performance” strategy.
- A tug-of-war between hospital-owned captives and excess underwriters and reinsurers over retentions and aggregates as exposures increase and pressure to self-insure parts of existing commercially insured working layers increases.
- Captives owned by healthcare providers will increasingly shift to stating their reserves on a nominal expected basis (undiscounted expected). This move will not only be provoked by auditors, and an increasingly uncertain investment performance outlook, but, more importantly, in order to free up existing surplus as the exposure basis of employed physicians increases.
- A significant growth curve in the use of single-parent captives owned by tax-exempt healthcare providers. In other words, that reliable old standby, the pure captive—the least regulated captive by any regulator—will take on new importance and relevance in this changing healthcare insurance and healthcare liability environment.

inside the hospital's four walls. Very few of them, regardless of the size of the hospital or hospital system that employs them, have a depth of knowledge and expertise in providing risk management and other services to what are privately employed and soon to be employed physicians. As those physicians, overnight, become hospital employees, the special risk management and risk financing issues associated with physicians (whether employed or not) will spawn a new interest in outsourcing risk management services, third-party administration, etc., and will be a positive development for consultants, brokers, and others.

In other words, *not only will existing hospital-owned captives get larger, and new hospital captives be formed as a result of healthcare reform, but a whole host and array of services will be required by hospital risk managers to support this expansion.* Captive managers should be learning as much as they can about healthcare reform, as, in the midst of this prolonged soft market, it

is in fact tax-exempt health care that will fuel captive growth.

The excess insurance and reinsurance market should be poised for increases in exposure and the need for new capacity as the exposure basis of hospital systems changes dramatically.

Conclusion

In short, *most hospitals have no more than about 12 more months to sort out the direction they're going relative to the development of ACOs and the refinement of their physician strategy, and it is in these next 12 months that we in the captive industry have, as well, our narrow window of opportunity to make the most of these changes.* The opportunity within the industry is now ours. This is our chance to educate, create, effect change in a positive way, and revitalize an enormous section of the existing captive marketplace to accommodate these changes in our health care delivery system.

Bermuda Captive Survey

Editor's Note: This was written by CICR with supplementary comments by investment advisor **Carl Terzer**, of CapVisor Associates, LLC, in Chatham, New Jersey.

At last year's Bermuda captive conference, **Traver Alexander** of the Bermuda Monetary Authority (BMA) released some preliminary results of their fourth Bermuda captive survey. The survey revealed some interesting statistics, which we will share.

- ✓ The survey covers over 50 percent of Bermuda's captives, which equates to around 450 from our count.
- ✓ The data covers the period 2003–2009.
- ✓ Gross written premiums in 2009 slipped to \$18.8 billion, from \$19.7 billion in 2008. 2006 had the highest premium totals, which were \$21.5 billion, and they have slipped every year since then.
- ✓ In 2009, North America premiums account for 71.6 percent of the Bermuda market. A distant second is the global market at 13.9 percent, and Europe at 7.0 percent. However, since 2003, South America had the greatest growth, at a lusty 107 percent (albeit from a small base), while North America grew by 26 percent and globally, the market grew by 23 percent.
- ✓ The 4 biggest industry segments by captive sponsors were health care (12 percent), manufacturing (9 percent), finance (9 percent), and energy (7 percent). However, since 2005, the industries that grew the most were construction (12 percent), energy (12 percent), financial (12 percent), and health care (10 percent).
- ✓ Premium shares by industry grouping however are far different. Energy (though it is the fourth largest industry rank, it comprises 22 percent of the premiums) far

outpacing technology and telecommunications (fourteenth industry rank, but 10 percent of the premiums), retail (seventh in industry rank, with 7 percent of the premiums), health care (first in industry ranking, with 7 percent of the premiums), and transportation (seventh in industry rank and 7 percent of the premiums).

- ✓ Regarding lines of coverage, for those writing property risks, 51.2 percent of the captives write property and business interruption, far outpacing coverages such as product warranty (12.1 percent) and cargo and marine (8.9 percent).
- ✓ Regarding casualty lines, WC is written by 35.9 percent of the captives, followed closely by general liability at 33.4 percent and auto liability at 10.3 percent. Other major lines include professional liability at 6.8 percent and medical malpractice at 3.6 percent.
- ✓ The loss ratio was 64 percent in 2009. It was 69 percent in 2008, and 78 percent in 2007.
- ✓ The expense ratio was at 13 percent in both 2009 and 2008, and was 10 percent in 2007. We noted, however, that 9 percent had expense ratios between 20–30 percent, and another 21 percent had loss ratios greater than 30 percent.

CICR comment: The problem is many group captives have their own support staff, whereas most single-parent captives farm these out or depend on their fronting insurers to provide these services. That can heavily skew the results.

Then, the survey provided some interesting asset and investment data. For instance, Bermuda captives have assets topping \$90 billion in 2009, a steady increase from \$51 billion in 2003. However, the last 3 years have been relatively level around the \$90 billion level—a bit surprising given the poor investment climate that began in 2008.

The asset mix is also interesting.

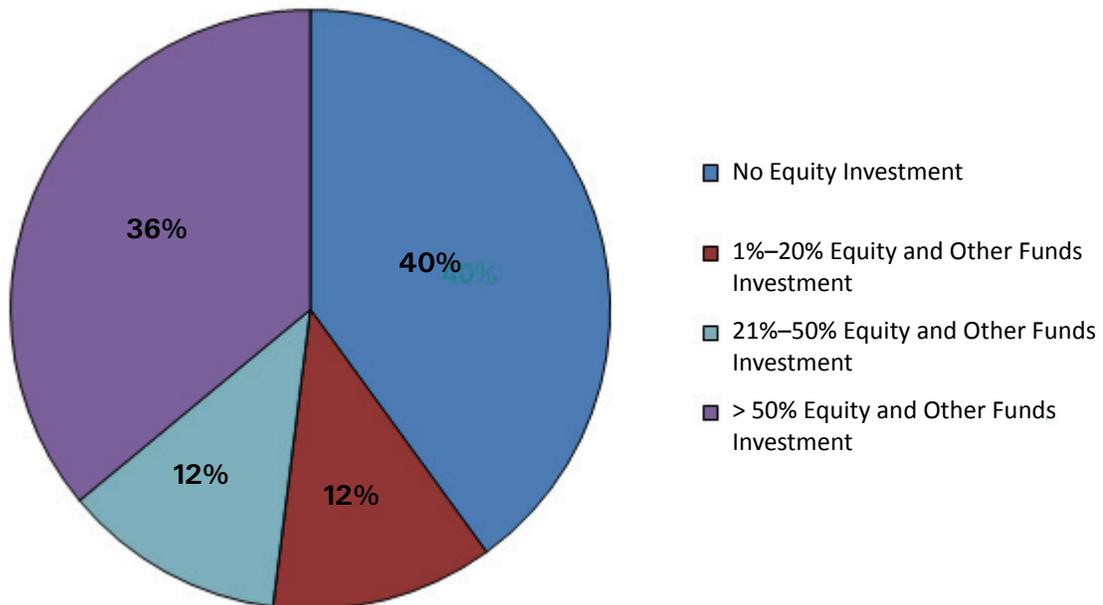
- ✓ **Quoted investments:** Only 38 percent of captives' investments are quoted. Of these, bonds constitute 73 percent; equities, 8 percent; and other funds and investments, 19 percent. Just 2 years earlier, quoted investments made up around 55 percent of captives' investment portfolios. The drop has been dramatic.
- ✓ **Investment in and advances to affiliates:** 25.9 percent. Just a couple of years ago, this was around 15 percent.
- ✓ **Cash:** 19.9 percent. This has been relatively steady for a few years, though slightly lower 2 years ago when the stock market was strong, but nothing that dramatic.

- ✓ Accounts premiums receivables, reinsurance balances receivables, unquoted investments, and other investments: 16.3 percent. Two years ago, this was at its nadir, at around 10 percent.

However, the attached graphic is really interesting. It shows how many captives invest in equities and other funds. What surprised us was 12 percent of captives invest 21–50 percent in equities and other funds. Even more surprising was 36 percent invest over half of their portfolio in equities or other funds!

We asked **Carl Terzer** of CapVisor Associates, LLC, an investment adviser, to provide his thoughts on this investment profile. We did not ask him to comment on Bermuda's regulatory oversight or appropriateness of the

Figure 8
Invested Assets Profile (% of Captives) | 2009



captives' investment mix, merely for his thoughts of these captive investment portfolios from a captive owner's need.

Here are Mr. Terzer's thoughts:

- ✓ Prior to the credit crunch of 2007, Bermuda's statistics generally indicate portfolio allocations that align fairly well with the greater property and casualty (P&C) universe regarding fixed income, equities and cash percentages. Looking at National Association of Insurance Commissioners (NAIC) data reported from small American P&C insurers writing commercial lines, the average allocations were: 20 percent cash, 1 percent preferred stock, 71 percent bonds (composed of 16 percent municipals, 27 percent governments, 12 percent mortgage backed securities, and 16 percent corporate bonds), 7 percent equities, and 1 percent other. Of course, since that time, aberrations occurred to "normal" allocations in reaction to the credit crunch with percentages invested in governments and cash increasing while mortgage backed securities and equities decreased.

Most investment professionals agree that over 90 percent of investment results, over the long term, are attributable to the strategic asset allocation rather than tactical portfolio management. Strategic allocations are broad categories such as liquidity, fixed income, equities, and alternatives. While many captive insurers align their asset allocation with "peer" company, they really should be determined and preferably "optimized" using analytic support software. (For most captives, CapVisor uses a software package from a leading actuarial firm, as the sophistication of this software best matches a typical captive's portfolio's requirements.) For insurance companies, this software should incorporate liabilities as well as assets for an asset and liability model (ALM). With this input, a computer model of the company is built and run through various economic scenarios to model the effects on the company using different allocations under different market conditions. Observing the out-

put of the software—which is 5 years of projected balance sheet and income statements—can be very revealing and is an insightful tool on which management can base strategic allocation decisions.

In all cases, it would be my recommendation that insurers view their portfolios in three segments: liquidity, reserves, and surplus. Their risk budget should be allocated across the reserve and surplus components with the vast majority of risk being taken in the latter. I generally advise clients to maintain an investment grade quality bond portfolio for the reserve component, with equities and alternatives held only within the surplus component. Using this, I might extrapolate that 48 percent of the respondents in the Bermuda survey probably have very sizable surplus components. While this may be true, it is my experience, particularly when dealing with offshore captives, that many have aggressively invested reserve assets in the riskier asset classes (perhaps because they consider the captive assets to be their own). While this may be true, as a practical matter, it may seriously jeopardize the health of the captive.

Final comment: I suspect that insurer rating services would be appalled at the "frequency and severity" that some outlier captive insurance companies have regarding prudent asset allocations. Maybe this is why just a few hundred captives actually get ratings!

"It is my experience, particularly dealing with offshore captives, that many have aggressively invested reserve assets in the riskier asset classes (perhaps because they consider the captive assets to be their own). While this may be true, as a practical matter, it may seriously jeopardize the health of the captive."

~Carl Terzer on his concerns about some captive investment strategies