

THE RESOURCE

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From the Desk of Jeff Poulin
Senior Vice-President, Life Reinsurance



It is fair to say that we have been dealing with a lot of changes in the last few months.

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WHAT IS ALL THIS TALK ABOUT A COVERED AGREEMENT

We have a new President who is causing some of them, the main one being related to taxes. The good news is that the Republicans are working towards lowering the corporate tax rate. The not-so-good news is the fact that they want this change to be revenue-neutral and therefore someone has to pay for it. So the GOP is looking at Border Adjustability as a candidate for "revenue enhancement". This means a tax on imported goods and services.

As you know, a great deal of reinsured business is retroceded offshore for capital reasons. Depending on how this tax applies, it could have a significant impact on the cost of reinsurance for the industry and on the capacity offered in this country. This proposal is getting a lot of resistance from many of the industries that rely heavily on imports such as the oil, auto and retail industries. If the BA proposal does not pass, our friends at the Ways and Means committee have talked about going back to the Camp proposal and possibly committing more drastic measures on our industry to help pay for the tax cuts.

Amongst some of the things that could affect us are: taxation of inside buildup on life policies, taxation of face amount when paid, and/or reduction of the tax reserves by significantly increasing the discount rate on them. In addition, this administration is considering removing taxation of estates, which would reduce a significant portion of the production of large life insurance policies.

Leaving tax aside for a minute, we also have the passing of a covered agreement which is being debated on the Hill as I'm writing. (Mike

Mulcahy has more on this topic below.) One effect of a covered agreement is that the European reinsurers would be allowed to write reinsurance in this country without being licensed and without collateral if they meet a minimum standard. It would also allow US companies with European subsidiaries to avoid group supervision from a European regulator. Not to mention the Fiduciary Rule, which may or may not be delayed or repealed; Dodd Frank, which may be modified or repealed; and PBR, which in 2017 can be implemented for the first time.

Despite the recent failure of Congress to pass a "repeal and replace" bill, our healthcare system may still be reworked. Furthermore, I left out the entire "InsurTech" category that has our industry inundated with savvy techy concepts to help either our underwriting or our production of new policies.

In this coming year, our industry will be faced with a lot of challenges and we need to be ready for them. As a reinsurer, we too need to be aware of and remain on top of these changes, as the only way we can serve our clients well is by being able to see the potential changes coming and turn them into opportunities for all of us. Rest assured that your friends at Canada Life are looking out for the newest curve balls thrown at the industry and are looking out for your interest.

In this edition we have wonderful articles about Insurtech, underwriting scuba divers, the coming new Canadian capital framework, and as mentioned, Covered Agreements. I hope you enjoy Canada Life Re's Spring 2017 newsletter, The ReSource!

Pricing

While most of us are now working under a new reserving regulation framework in the United States, north of the border Canada will update its capital framework on January 1st, 2018.

For the past 25 years, Life Insurers and Reinsurers have assessed and monitored their capital under OSFI's Minimum Continuing Capital and Surplus Requirements (MCCSR).¹ Each year, MCCSR guidelines have been reviewed and updated to reflect changes in the industry and emerging risks. However, the base framework has remained essentially the same factor-based approach, relying on various levels of confidence in each risk.

MCCSR is combined with actuarial liabilities, which include a provision for adverse deviation, to get the total balance sheet requirement.

Motivated by various developments (the financial crisis; the evolution of financial reporting standards (IFRS), Canadian actuarial standards (CIA) and economic and financial practice; and advancements in other solvency and regulatory frameworks), OSFI launched an in-depth review of its own framework 10 years ago with input from the industry. In addition, the review considered developments in product design and advances in actuarial and economic capital theory which allow more complex modeling. This exercise resulted in the adoption of the new framework which was published last September.

Effective January 1st, 2018 and without a transition period, MCCSR will be replaced with the Life Insurance Capital Adequacy Test (LICAT) regulatory risk-based capital framework. The goal of LICAT is to “better align measures of risks with the economic reality faced by life insurers, thereby promoting appropriate risk management and business decisions.”²

In practice, the new framework has moved from a factor-based approach with limited diversification to one of balance sheet stress test scenarios with diversification components within and between each risk. For example, under MCCSR, the interest rate risk requirement was a factor applied to the actuarial liabilities. This factor depended on the type of product and guaranteed period. Under LICAT, the same required capital for interest rate risk is calculated as the maximum loss under four different prescribed stress scenarios. Each of these scenarios requires the insurer to shock its best estimate asset and liability projections.

A life insurance company will be required to hold assets that are at least equal to the best estimate of its insurance actuarial liabilities plus a solvency buffer. Any margin for adverse deviation formerly included in the

actuarial liabilities will now be included in the solvency buffer. This solvency buffer (i.e. required capital) is intended to absorb significant unforeseen losses over a one-year time horizon and to ensure there are adequate provisions after one year to run-off or transfer the business. Under the new framework, one of the consequences will be that each company will have to redefine its operational capital target given the new definition of solvency buffer and available capital. Capital ratios that have traditionally been expressed as multiples of required amounts will now be closer to 100%.

As indicated by OSFI, “The amount of capital required to be held in the life industry, as a whole, is not expected to change significantly compared to that required under the MCCSR. However, the new framework may require individual institutions to evaluate their overall plans based on the business lines in which they are engaged, the risks they choose to take on and how these are managed.”³

With these changes, Canada Life Reinsurance will continue to maintain its strong balance sheet and capital position, and is ready to support its clients into the future.

¹ OSFI is the Office of the Superintendent of Financial Institutions, the Canada regulator

² OSFI's “Life Insurance Capital Framework Standard Approach”, published January 5, 2015

³ OSFI's “Guideline A - Life Ins. Capital Adequacy Test” published September 12, 2016

The Aging Scuba Diver

It was several months ago that I was asked to write about Scuba Diving. I have since spent two scuba vacations thinking about this. It is, of course, very easy to become distracted. Just picture this – you are on a boat with a group of divers, jostling for space to set up your gear, putting on your flippers and jumping into the most amazing turquoise blue ocean you can imagine, and it's warm, about 82 degrees – work is not in your most remote subconscious thoughts.

Now you are beneath the surface, floating, weightless and serene. The sand is white, the coral purple, red, orange, and the fish multi-coloured, varying in size from miniscule fish fry to gigantic – 10 foot Eagle Rays and 8 foot turtles - still no work thoughts.

During my 10 years of diving I have noticed an aging in the population of divers. I would estimate that about 40% of the participants on my last trip were over age 45.

In 2000 there were 10,127,054 recreational divers certified by PADI worldwide. With a median age of 29 at certification, those divers are now age 45. By 2011 the number of certified divers had doubled, many learning to dive for the first time in their 50's.

DAN (Diver's Alert Network) reports that in 2014 there were 146 deaths of recreational divers worldwide. 81% were male and 19% were female. But 84% of male deaths and 69% of female deaths were in those over age 40 and more than 50% were over age 50. The most common known disabling causes

were cardiac disease and insufficient air. Coronary artery disease and hypertension were present in about half the cases where the medical history was known and 51% of the deceased were obese.

In an article entitled Scuba in Older Aged Diver, by Michael B Strause MD, et al., they recommend that we consider Physical Fitness, General Health and Cognitive Function rather than chronological age in evaluating suitability to dive.

As we age we experience many negative physical changes in our bodies, but, on the positive side, we generally tend to exhibit improved judgment and so take less risk.

Diving is a low impact aerobic activity, improving circulation and reducing blood pressure and stress. Studies have shown that those who dive regularly have less risk of heart attack or stroke.

A high level of fitness is paramount; general health, mobility and strength must be good and any comorbidities, such as cardiovascular disease, asthma or diabetes well controlled. For example, an individual with mild CAD, who is fit and compliant with treatment, may be an acceptable scuba diving risk. However, we may want to carefully consider a morbidly obese individual, as nitrogen dissolves well into fatty tissue significantly increasing the probability of decompression sickness.

One way to help us evaluate insurability is to look at the medications an individual is taking – what is the underlying condition? How long has

the drug been used? What are the side effects? Is there any effect on the central nervous system? How do atmospheric pressure, inert gas and oxygen affect the metabolism of the drug? It is important to establish that the patient is compliant, the treatment is successful and any side effects are minimal.

Here at my desk, I realize that many older divers will continue to dive for as long as possible. Once in the water, the effects of gravity disappear and with it many aches and pains. Stress recedes and wonder takes over. Day dreaming about a previous dive is great, but . . .

Canada Life Re to offer Life Coverage to HIV+ Individuals

Until recently HIV+ individuals were declined for life insurance. With the development of effective anti-retroviral drug treatments, called HAART or ART, the life expectancy of HIV+ individuals has increased significantly. It is now possible to consider HIV infection as a chronic disease similar to many others that we underwrite.

Accordingly, we have decided to offer up to \$2,000,000 on HIV+ cases sent to us on a facultative basis that meet the criteria set out in our underwriting manual CLEAR.



InsurTech for U.S. Life Insurance has Arrived

“The electric light did not come from the continuous improvement of candles.” -Oren Harari

After three visits to Silicon Valley in three months I’ve come to the conclusion that InsurTech for the U.S. life insurance market has arrived. And the Genie isn’t going back into the bottle. U.S. InsurTech financing hit \$1.377 billion in 2015, with the global figure about double that (CB Insights). No slowdown occurred in 2016.

The lingo hasn’t been hard to learn:

Biology + Technology = BioTech
Finance + Technology = FinTech
Insurance + Technology = InsurTech

Early start-up activity has been concentrated in Health & Wellness and Property & Casualty Insurance. Initiatives in Health & Wellness include various types of technology that improve the monitoring of consumer health or diagnosis of disease. Specific examples include:

- Vitameter – Single drop of blood at home measures vitamin deficiencies and recommends corrective protocol
- Siren Care – Socks that measure the foot temperature of diabetics in a passive, continuous, non-invasive manner
- Neurametrix – Measurement of brain health using typing cadence
- Graphwear – Using sweat gathered by a patch on the skin to collect various biometrics

Benefits from many of these Health & Wellness initiatives can be transferred to life or health insurance underwriting. Evaluating cognitive ability becomes important at higher issue ages, for which typing cadence is being explored; or consider the less invasive use of sweat gathering to collect biometrics.

Our industry needs to generally stay abreast of technology that affects the health of our client base as well as

consumers’ easy access to this knowledge. These can create implications for anti-selection by new insureds, or may influence views on future mortality levels.

Property & Casualty Insurance initially received more attention from Silicon Valley than did Life Insurance. P&C Insurance is more transactional, data-driven, and of shorter duration, which made it a more attractive candidate for transformation. P&C start-up examples include:

- Simply Insured – Aggregation site for small businesses to buy health insurance
- Cover – Uses photos or videos to identify objects for the purchase of property insurance
- Nauto – Dual webcams monitor activity within and outside a vehicle, measuring things like driver distraction and lane drift to help pinpoint liability
- Amodo – Creates a new buying experience for the purchase of auto insurance, geared towards the habits of millennials

Our life insurance industry knows that we need to adapt to the buying habits of millennials. Streamlining our underwriting and purchase process should also help us penetrate the long elusive middle market. InsurTech initiatives can contribute to these needs by supplying new processes, data sources and analytics.

Technology entrepreneurs will quickly pivot from the P&C industry to our life insurance industry. Investigations of our industry by these entrepreneurs have commenced. This pivoting has already begun:

- Vivametrix – Uses wearables and smartphones to collect biometric data and apply it to insurance underwriting

- Lapetus – Facial recognition software to assess smoking status, BMI, and life expectancy

The manner in which InsurTech is adopted remains to be seen. Evolution would involve existing industry players who partner with, co-opt, or absorb start-ups. Disruption could be created by start-ups that go their own way rather than being hampered by working with existing insurers. The difference in cultures between Silicon Valley and existing insurers is extreme and hence poses challenges for working together. Silicon Valley moves quickly, tries new ideas, and adjusts and adapts rapidly. Existing insurers have deliberate decision making processes, are risk averse, and are mired in legacy technology.

In a recent survey on the P&C side, 77% of executives believe their industry’s appetite for radical innovation has increased over the last 12 months. Yet the percentage who expect disruption to occur from within the industry has dropped from 59% in 2015 to 33% in 2016. If so, then disruption will be foisted upon us from beyond our traditional players. Slice is a new insurer who will be offering on-demand insurance for purposes like Uber and Airbnb, turning “on” homeowners or auto insurance when active, and turning it “off” when it is not needed. Slice needed to set up new processes for distribution and client communication, and could not achieve their goals by working with an existing insurer.

InsurTech for the life insurance industry is upon us. Will we continue to make better candles?



What is all this talk about a Covered Agreement?

You might have heard a lot about a covered agreement recently. What exactly is a covered agreement? What is the goal of a covered agreement, and what exactly does a covered agreement do? When (if ever) will there be a covered agreement? If there is a covered agreement, what impact will it have on my business?

Well, the answers to most of those questions aren't 100% clear. However, I'll do my best to answer them with the available facts. I remind you that even though this is a "digital newsletter", it still takes two weeks between writing the articles and "going to print". It's quite possible some of the issues presented here could change before you read this.

What is a Covered Agreement?

The possibility of a Covered Agreement was created by Congress in the Dodd-Frank Act, specifically by Title V of Dodd-Frank (the FIO Act). The act allows the Treasury Secretary and U.S. Trade Representative, under certain restrictions, to negotiate an agreement that could preempt state-based insurance regulations. The act further gives the Director of the newly created Federal Insurance Office the authority to preempt state law if the law is inconsistent with a Covered Agreement, and the law would treat a non-U.S. insurer less favorably than an insurer domiciled or licensed in the state.

On January 13th, the Treasury Department and USTR submitted to congress a Bilateral Agreement between the European Union and the United States of America on Prudential Measures Regarding Insurance and Reinsurance (hereafter referred to as "The Covered Agreement").

What is the Goal of The Covered Agreement?

While there someday could be additional covered agreements submitted to congress for other jurisdictions, the driving force behind the creation of this particular covered agreement was to ensure equivalency for the U.S. with the E.U. under Solvency II. In addition to this goal, former FIO director Michael McRaith stated the following goals in an open letter last November when the negotiation process on The Covered Agreement began:

- To allow U.S. insurers to operate in the EU on uniform regulatory terms equivalent to those by which EU insurers operate.
- To promote cooperation and information sharing between EU and U.S. regulators, thereby promoting insurance marketplace stability and competition, increasing options for consumers, and promoting economic development.

What are the provisions of The Covered Agreement?

The Covered Agreement has three key provisions, in addition to certain standards regarding the exchange of information between E.U. and U.S. insurance authorities.

1. It eliminates local presence requirements for a reinsurer assuming business from a country other than where they are domiciled. It further restricts a country from enforcing any rule that would have the same effect as a local presence requirement.
2. It also eliminates, given certain conditions are met by the reinsurer, collateral requirements for an assuming reinsurer domiciled in a different country than that of the ceding company. The reinsurer must have a minimum of \$250M of surplus (226M Euro) and at least 300% of CAL RBC (100% SCR Solvency II), must consent to the jurisdiction of the ceding company (and related judicial consents), and provide 2 years of audited financials including details related to their reinsurance business.
3. It sets standards for group supervision of companies doing business in other jurisdictions. In general, companies will be subject to supervision and group capital requirements only in their home jurisdiction, so long as that jurisdiction has a supervision standard that meets certain requirements.

When will The Covered Agreement be Effective?

The answer to this questions is the least clear of all addressed here, with the actual answer being anywhere from very soon to never.

The Covered Agreement itself sets forth that it will enter into force 7 days after the parties have exchanged written notice that they have fulfilled their requirements.

On the E.U. side, both the EU Parliament and the US Congress must approve the agreement. On the U.S. side, a review by Congress and a 90 day waiting period imposed in Dodd-Frank are required. Note that while Congress needs to review the agreement, it would have to pass a law in order to override it, and that seems unlikely with all else that is happening on The Hill these days. The Treasury Department and USTR could easily prevent The Covered Agreement from taking effect, by either not giving notice, or by utilizing termination provisions in the Agreement. This is possible, as the Trump administration has given notice of its intent to carefully review any regulations executed by the prior executive administration.

There are also a significant number of entities pushing the Trump administration not to move forward with The Agreement. While most insurance industry trade groups, including the ACLI, have come out in support of The Agreement, some companies have voiced negative opinions. A few companies are opposed to the removal of collateral requirements in general. However, most of the concerns opponents have are focused on the group supervision provisions. The conditions in this section of The Agreement are somewhat vague, and many companies fear that current U.S. state law doesn't meet the conditions. Specifically, The Agreement

requires the regulator conducting the group ORSA to be able to assess the capital of the entire group, "... including the worldwide parent undertaking of the insurance or reinsurance group", and to have "...the authority to impose preventive, corrective, or otherwise responsive measures on the basis of the assessment..." A U.S. state regulator would not have the authority to take corrective action against group entities in other states, or against non-insurance holding companies. If taken literally then, The Agreement doesn't solve the issue of U.S. Solvency II equivalence. But what many companies voicing opposition are more concerned about is the potential that state regulators would adopt the power to regulate holding companies or impose further capital requirements on insurance entities in order to meet these provisions in The Agreement.

Even if it does take effect, most of the provisions of The Covered Agreement are set to phase in over a five year period. The group supervision provisions are to be applied as soon as the agreement is in force. The Covered Agreement asks the U.S. to encourage states to reduce collateral requirements by 20% each year after the Agreement takes effect, resulting in zero collateral 5 years from the in force date of the Agreement. It requires the U.S. to begin reviewing state laws that aren't in compliance with the agreement three and a half years after the Agreement is in force, and to have preemption determinations made on any such state laws by the 5 year date.

What impact will the covered Agreement have on my business?

Let's assume all the issues discussed above are solved and The Agreement becomes fully effective. What could we expect to be the impact on the U.S. life insurance market?

For those companies doing business in Europe, fear of Solvency II overreach by E.U. regulators would be gone. As stated at the beginning of this article, that was the primary motivation for the creation of covered agreements in the first place.

The other impact would be the elimination of collateral for cessions to Europe. By market share most U.S. reinsurance cessions are to European based reinsurance companies. The elimination of required collateral thus might reduce reinsurance costs in the U.S. market. However, the NAIC already has reduced collateral requirements in the form of the Certified Reinsurer provision.

The Agreement, however, does have differences from the Certified Reinsurer law that would have an impact. First, there is no company rating requirement. The ratings provisions in the certified reinsurer language would require a reinsurer to post more collateral if they get downgraded, which likely keeps reinsurers from passing the full cost savings of reduced collateral on to their clients. Second, The Agreement essentially is retroactive, as it disallows collateral on any new contracts, or contracts amended after The Agreement takes effect. While this would likely have a large impact on the industry, there have been indications that this was not the intent, and we may see clarifications to that effect before The Agreement is in force.

Editor's Corner

In its continuing search for relevance, America's so-called mainstream media have been running stories over the last several months on something they call "fake news". The narrative, as far as I can piece it together, is that more news is being reported falsely and more commonly than ever before. Not surprisingly, depending on which political views a news outlet has, it reports that the outlets with opposing views are the main sources of fake news. It turns out they're both correct.

Fake news has been with us for a very long time. All the way back in the mid-1930s, the Harvard Lampoon ran a story (written by the undergraduate Robert Benchley) with the headline "Einstein Nabbed in Love Nest, Arrested in Boston Apartment". Local officials were so offended they burned copies of the Lampoon in bonfires on the Boston Common.

Hold on, I hear you say. The Lampoon (like its more recent online cousin, The Onion) isn't meant to be taken seriously. It's satire, not news. Well, okay, then let's move forward to November 3rd, 1948. On that day, one of the most iconic photographs of the 20th century was taken. It showed the President of the United States holding up that day's edition of the Chicago Daily Tribune, which had a banner headline that read "DEWEY DEFEATS TRUMAN". News doesn't get more fake than that.

Another source of fake news is the supermarket tabloid industry. But like the Lampoon, they really aren't meant to be considered as gospel. The items in these rags range from stories that take a nugget of truth and extrapolate all sorts of nonsense around it to those that are simply made up out of whole cloth. When waiting to pay for your Pop Tarts, does anyone see the headline ELVIS SPOTTED WORKING AS GREETER AT GRAND RAPIDS WALMART and think "I need to get to Michigan and visit the King"? Well, maybe a chosen few.

But fake news can be dangerous, which I attribute in part to the dearth of critical thinking skills amongst our fellow countrymen and women. A recent case in point, known popularly as Pizzagate, is a prime example. While it didn't involve

the mainstream media, the whole mess started with emails from a prominent political consultant being downloaded by Wikileaks. From there it morphed into a huge conspiracy theory that even more-prominent politicians, including a former President and his wife, herself a former Democratic nominee for the Presidency, were operating a child prostitution ring out of a D.C. pizzeria. Who would possibly believe that? The answer is an embarrassingly large number of people. In fact, one of these geniuses did so strongly that he drove from his home in North Carolina to the pizzeria, and once inside pulled out an AR-15 rifle and started shooting. Luckily, no one was injured.

Finally, we come to the most common form of fake news. These are stories that I find objectionable not because they're fake, but because they're not news. On March 11 of this year, CNN ran a story with the headline "Dan Rather: 'We are a deeply divided country'". Wow. Thanks so much, Danny, for the stunning insight. It's good to see that at 85 you're still providing an example for journalists everywhere. We've never had haves and have-nots in America. And the Democrat and Republican thing is a recent phenomenon, too. Maybe what he meant to say is we've never been so divided as we are today. Hmm, I'm not old enough to know this from direct experience, but I suspect back in the 1860s America was just a wee bit more divided than now. The bottom line is – how is this newsworthy?

I love anagrams. Fake news = few sneak. As in, a few sneak into print or online. We've all seen them, and have become adept at separating the lies from the truth. Nothing newsworthy there, either.

Welcome Kevin Larsen

Kevin Larsen joined Canada Life Re in February of this year as Director of Actuarial Research. Prior to coming on board, Kevin had been consulting through Jacobson Solutions, and before that worked in many reinsurance roles at ING Re, Scottish Re, and Hannover Re, all in the same building. He built mortality and lapse experience study processes and trained and developed numerous actuaries to transform raw data into meaningful information.

Kevin has been excited to join some former colleagues and meet new ones, while also engaging with the clients of Canada Life Re to get a better understanding of counting dead people. He is quite accustomed to being surrounded by women and actuaries; after all, his wife and eldest daughter are actuaries. Having once played a father of five girls on stage, as Tevye in Fiddler On The Roof, Kevin is also proud of three real-life daughters, and just four months ago became a grandfather for the first time. Of course, it was a girl.

Kevin will be based in Denver, but looks forward to visiting his colleagues in the Canada Life Re family over the course of the coming months, and to helping contribute to the company's and clients' successful understanding and management of mortality risk.

Please join us in welcoming Kevin Larsen to CLRe!

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