

SOLVENCY MATTERS

A quarterly report on solvency issues affecting P&C insurers in Canada



Issue 16 - January 2022

Insolvency protection for home, automobile and business insurance customers



From the Desk of the President (Alister Campbell) **Reflecting on “Model Risk”**

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Emerging Issues (Donna Sirmons) **Florida Commission on Hurricane Loss Projection Methodology**

The Florida Commission on Hurricane Loss Projection Methodology (Commission) was created in 1995 in the wake of disruptions in the Florida property insurance market caused by Hurricane Andrew in 1992. ...Continued on Page 8.



Solvency Analysis (Zhe (Judy) Peng and Grant Kelly) **PACICC’s advice to insurers: Enjoy the good times while they last**

The good times continued to roll with the release of the P&C insurance industry’s third quarter financial results. The industry’s annualized return on equity for the first nine months of 2021 was 18.0 percent. ...Continued on Page 10.



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Despite the continued evolution of best practice in enterprise risk management and the ever-increasing rigour of prudential oversight across the developed world, P&C insurance companies do still fail... ..Continued on Page 12.



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Next Emerging Risks Webinar – Thursday, February 24
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Industry Events

(subject to confirmation)

February 6

CICMA/CIAA Ontario Chapters’ Annual Joint Conference

February 10

CatIQ Connect

February 24

PACICC Emerging Risks Webinar - Risk Identification and Risk Assessment

April 14

PACICC Risk Officer’s Forum Meeting

April 22-23

InsurTech North

May 19

PACICC Emerging Risks Webinar - Cyber Risk/Operational Risk Resiliency

From the Desk of the President

Reflecting on “Model Risk” - by Alister Campbell



Standard & Poor's published a research paper last September which made headlines across the insurance sector trade press. The key takeaway read as follows – “Our scenario analysis suggests that reinsurers' estimates of their exposure to natural catastrophe risk – and therefore physical climate risk – could be underestimated by 33%-50%, which is 91% of the sector's buffer above the 'AA' capital requirement.” This analysis was sobering reading for any industry observer – but particularly for last resort organizations such as PACICC – obsessed with solvency risk and deeply exposed if the capital requirements modelling done by Member Insurers and their reinsurers turns out to be just plain wrong.

The news stories also brought back to me a meeting earlier in my career, when I worked as CEO for a large Canadian branch of a multinational insurer. It was not long after the financial crisis and there was substantial pressure from politicians and regulators to declare a short list of global insurers as “systemically Important.” As a general rule – as the Geneva Association thoughtfully argued – the broad geographic diversification of global P&C insurers makes even the largest players in our sector significantly less likely to be “systemic.” After all,

we could legitimately claim...the earth doesn't shake, the wind doesn't blow, or the floodwaters don't rise in multiple places at once. My mission was to meet with key players in the Canadian regulatory space to make this argument. I had just finished making my (I thought compelling) case to a room full of serious folks at OSFI when a senior regulator (now on the PACICC Board) said, “I disagree. There is a systemic risk in the P&C sector. You are all relying on the same quake model.” I have been stewing about that moment ever since.

“I had just finished making my (I thought compelling) case to a room full of serious folks at OSFI when a senior regulator (now on the PACICC Board) said, ‘I disagree. There is a systemic risk in the P&C sector. You are all relying on the same quake model.’”

Over the last 23 years, OSFI has been requiring federally supervised P&C insurance carriers to demonstrate their capacity to handle increasingly large earthquakes – the industry will reach the stated target of a 1-in-500 year event next year. This represents a level of prudential conservatism almost unmatched in the Western developed world. And it means that the Canadian P&C industry – already well capitalized – is also backstopped by extraordinarily high levels of reinsurance. Reinsurance from a highly and geographically diversified panel of the world's most highly capitalized reinsurers. What could go wrong? Reality is the answer!

Nature is not fair. And in due course, Canada will be tested by a major earthquake. It could happen in British Columbia. It could happen in the Montreal/Ottawa corridor. Or, as Balsillie prize-winning author Gregor Craigie reminds us in “*On Borrowed Time – North America's Next Big Quake*,” it could even happen along a yet-to-be-discovered fault line somewhere else across our huge country. And when it does, our models and our industry will be tested. The odds are, of course, that such an awful event will be well within expected ranges and that our prudently managed, well-capitalized and highly reinsured insurance industry will demonstrate both its robust insurance capacity and empathetic claims-handling capabilities well – and respond as promised in the insurance policies sold. It is indeed entirely likely that all will go as well as could be hoped in challenging times. But...what if the models are wrong?

PACICC research has consistently highlighted a gap in the public infrastructure of our country – the lack of a federal backstop mechanism of some form to protect Canadians and the industry in the case of a tail-risk event. An example of this would be a mega-quake above and beyond the 1-in-500 year threshold. Our modelling has shown that the industry threshold is an insured loss of \$35B. At this point, as companies fail, the PACICC Assessment mechanism becomes the transmitter of a systemic contagion that could bring down the whole industry. But, our modelling is entirely based on insured losses – not on probabilities. So, we do not speak to how remote this tail risk is. Quake modelling does that. And here is where the model risk

“Nature is not fair. And in due course, Canada will be tested by a major earthquake. It could happen in British Columbia. It could happen in the Montreal/Ottawa corridor.”

lies. At some point – presumably beyond a 1-in-500-year scale event, companies will fail. And at some point beyond that, serial contagion will cause the entire industry to fail. So...now let's go back to the wise senior regulator's point. "You're all using the same model." What if the models are wrong?

OSFI and the other regulators that perform prudential supervision in Canada rely on a B-9 filing which each insurer submits every year – showing their exposure to earthquake and the capital and reinsurance capacity available to respond to

progressively more severe events. And each insurer selects a modelling company to assist with this valuation. All the modelers are drawing upon the same limited event sample set, the most recent seismological maps, and their own proprietary scientific analysis. The list of vendors is short, and all are highly professional and deeply serious about their work. But, there remains a significant margin of error. And, with any model, there is always that risk that it is flat out wrong.

Of course, the model could be wrong in either direction. But it is always prudent to anticipate worst-case scenarios. And wise to ensure suitable rigour in the selection of models. Our Guest columnist this issue describes how Florida – exposed to substantial wind risk and having suffered numerous insurer failures as a result – has responded to this issue by establishing a Commission to evaluate and certify wind models to be used in their jurisdiction. It is not clear that Canada needs to go this far. Historically, OSFI has been “model agnostic.” It may be time to revisit this position.

More broadly speaking though, it seems evident (at least to me) that the existence of this model risk amplifies the case for the backstop mechanism that we have long sought. Our industry is already better protected than perhaps any other jurisdiction in the developed world against the risk that has been modelled. Insurance is the “safety net” of first resort. PACICC is the “safety net” of second resort. But the “last resort” function is always best served by government. We all are exposed to the consequences of model risk. It is appropriately the role of our Federal Government to absorb it.



“What if the models are wrong?”

PACICC Priority Issues: Updates

Reinsurance Consultation Paper Feedback

In July 2021, PACICC released an industry Consultation Paper seeking feedback from Member Insurers on the merits of purchasing reinsurance as a means of ensuring a more efficient and cost-effective response to future industry insolvencies.

The paper sought to obtain Member Insurer feedback on:

- Whether the industry was open to the idea of PACICC acquiring reinsurance – on behalf of the industry – to mitigate the impact of a natural catastrophe-triggered default of a Member Insurer
- The specific reinsurance option (coverage/price) successfully marketed by Guy Carpenter
- Appropriate methods of payment for such a reinsurance purchase
- The trade-off between the annual purchase of reinsurance vs. payment of capital levies to achieve an increased target level for the PACICC Compensation Fund.



PACICC received strong survey response, with more than 100 PACICC Member Insurers representing 88 percent of industry direct written premiums. The responses can be summarized as:

- Mixed views on the purchase of reinsurance by PACICC
- Clear bias toward an increase in the Compensation Fund rather than reinsurance purchase (particularly among larger companies), if a higher target was set by the PACICC Board
- The industry is not supportive of purchasing the specific reinsurance program detailed in the paper, for a range of reasons (price, quantum of coverage, stability of capacity)
- The industry is ready to fund a reinsurance purchase if required, and would prefer to do so via increased Assessment...Members are not supportive of drawing down income or capital from the current Compensation Fund
- If a higher target were to be set by the PACICC Board, the industry would prefer capital levies to the purchase of reinsurance. Some appetite was expressed for a combination (i.e. reinsurance purchase and/or standby line of credit) to cover the gap between the Fund and target, until such time as a series of capital levies would enable the Fund to get to a new, higher target.

PACICC's Board of Directors asked staff to review feedback with Guy Carpenter and explore alternative reinsurance scenarios – to flesh out scenarios for an increased Compensation Fund target, and explore costing for a standby line of credit as an alternative to reinsurance and/or capital levy. The Board of Directors will review results of this research at its Strategic Planning Conference scheduled for June 9, 2022.

“Permanent Priority” Issue

Réduction du risque systémique lié à un séisme

PACICC continues to work with Finance Canada to address the largest single risk facing PACICC and the Canadian P&C insurance industry – systemic contagion caused by a large earthquake. Central to our work with the Federal Government this year has been an update to our P&C Industry Model – to ensure that we can accurately identify the threshold beyond which our industry would not be able to adequately respond. In May, we published a major update to this Model, entitled “*How Big is Too Big? – The Tipping Point for Systemic Failure.*” The update included – for the first time – detailed scenarios for an event in BC and QC, as well as sensitivity analysis examining the outcomes of five alternative public policy responses. The results help to illustrate the compelling rationale for a Federal Government backstop mechanism as Canada's best option.

PACICC Priorities Con't

PACICC co-ordinates its work on this file with both the Insurance Bureau of Canada (IBC) and the Institute for Catastrophic Loss Reduction (ICLR) as the industry seeks to develop policy options. Recent joint efforts have included work to determine the potential impacts on our Model from various possible insurance “pool” designs being explored by ICLR and IBC.

PACICC has also initiated direct contact on this critical issue with the Bank of Canada, OSFI, the Canadian Deposit Insurance Corporation and the Canada Mortgage and Housing Corporation. PACICC will revisit its Action Plan annually until such time as a Federal Government backstop mechanism has been secured and is in place.

Priority Issue – 2021

Contingency Planning and Desktop Simulations

PACICC’s 2021 Priority was to develop Contingency Planning and Desktop Simulation exercises with Regulators. Proper emergency preparedness calls for the road-testing of response procedures to ensure their relevance and readiness when the call for help arrives.

A desktop simulation with OSFI is currently underway. In the first six months of 2021, PACICC and OSFI staff created a fictional “troubled” insurer with all of the necessary supporting materials, including: an OFSI Risk Assessment document, full P&C-1 information, Appointed Actuary Report and summary Own Risk and Solvency Assessment. The simulation scenario is now unfolding and lessons are being learned at each stage (so far).

The planned desktop simulation exercise with the AMF has been postponed until 2022. As the appropriate materials were being prepared, AMF and PACICC staff identified a series of roadblocks that needed to be resolved before conducting a successful simulation. These included:

- The AMF Guide to Intervention required updating. (It refers to laws that have been replaced.) The new Guide will be released in early 2022.
- AMF’s current Intervention Guide gives them the choice of selecting the Quebec winding-up option or use of the federal *Winding-Up and Restructuring Act (WURA)*, while PACICC’s ability to pay ‘compensation’ under its By-Law is strictly limited to *WURA*. This issue has now been clarified. Quebec Law would apply for every regulatory action up to insolvency – including possible “resolution” scenarios. Once the insurer is deemed to be insolvent, however, the federal *WURA* would apply.
- AMF staff questioned whether the wording of PACICC’s Memorandum of Operation may unintentionally inhibit the Corporation’s ability to contribute any industry funds via the existing Compensation Fund or the Assessment mechanism prior to liquidation (for example, when implementing Quebec winding-up options under Quebec’s legal environment). They strongly suggested that PACICC clarify this.
- A review of PACICC’s existing model Winding-Up Order found that this essential document had become out-of-date in some key areas. PACICC staff and external counsel have now produced a fully modernized instrument with a second version customized for the Quebec legal environment.

As a result of the work on contingency planning, PACICC’s Board of Directors approved:

- **Proposed By-Law Change** – Our Pre-Insolvency Regulatory Liaison (PIRL) Committee’s enhanced engagement with industry regulators and evolving role in resolution alternatives has made clear the need for an expanded number of non-Insurer Directors on the Board to handle the additional workload, and to provide additional skill sets and attributes to assist in resolution scenario management. The limit on non-Insurer Directors will be increased from five to seven.
- **Proposed Memorandum of Operation Changes** – Proposed amendments to Paragraphs 25, 30 and 40 would ensure that the PACICC Board has the full legal authority to both access the Compensation Fund and to levy assessments on Member Insurers, in order to finance alternatives to liquidation that satisfy the Corporation’s Resolution Protocol.

PACICC Priorities Con't

The Board unanimously approved these proposed changes to the PACICC By-law and Memorandum of Operation at its November 4, 2021 meeting. All proposed changes have also been discussed in detail with the PACICC/Assuris Committee of the Canadian Council of Insurance Regulators.

The proposed changes have been shared with all provincial and territorial regulators, who are legally entitled to up to 90 days for review. In the absence of any objections, the proposed amendments to the Memorandum are adopted. The proposed changes to the By-Law also require confirmation by PACICC Insurer Members, which we will seek to secure at the Corporation's next Annual General Meeting, on April 7, 2022.



Priority Issue – 2022

Review the Scope and Scale of PACICC's Compensation Fund

The Corporation's Priority Issue for 2022 is to complete a formal review of the scope, scale and mandate of the Compensation Fund. The Compensation Fund was established in 1997. Its express purpose was to ensure the capacity of PACICC to respond immediately to the needs of affected policyholders after an insolvency, without the need to delay while waiting for required funds to be collected via a PACICC General Assessment.

In 1997, the PACICC Board of Directors set a Compensation Fund target of roughly \$30 million. The funds were collected through a series of industry capital levies – \$10 million a year – over a period of three years, from 1998-2000 – with each PACICC Member's Assessment being equal to 0.15% of their net written premium during 1997.

The Fund is managed for PACICC by CIBC Asset Management, overseen by PACICC's Audit & Risk Committee and governed by a strict Investment Policy focused exclusively on fixed income securities, with a high priority placed on security and liquidity. As of August 31, 2021, the market value of the Fund was \$58.9 million.

PACICC has not used the money in the Fund since its inception. Only the PACICC Board of Directors can authorize the use of funds in the Compensation Fund. The Memorandum of Operation requires that any Compensation Funds used be reimbursed, via an assessment on Member Insurers.

In 2022 PACICC will seek to answer the following questions:

1. What is the appropriate size for the PACICC Compensation Fund?
2. What sources of financing are available to PACICC to collect this amount?
3. How can PACICC best leverage the funds in the Compensation Fund to achieve its mission?

1. What is the appropriate size of funding needed by PACICC?

PACICC staff has begun preliminary work on this issue. PACICC initiated a 2020 report from Eckler Ltd. that sought to assess whether the current Fund was large enough to adequately achieve its original objective (rapid refund of policyholders' unearned premiums) in the case of a failure of a PACICC Member Insurer. The report found that the current Fund would be adequate to provide unearned premium rebates in the case of the insolvency of 108 of the smallest PACICC Member Insurers. According to the study from Eckler Ltd., the current Fund is not large enough to rebate the unearned premiums for policyholders at PACICC's 70 largest Member Insurers, should any of them default.

PACICC Priorities Con't

Second, earlier this year, PACICC released an update to its P&C Industry Model in a research paper entitled, “*How Big is Too Big? The Tipping Point for Systemic Failure.*” In that paper, PACICC modeled – for BC and QC, and for the first time – how large its Compensation Fund would need to be, to enable PACICC to avoid having to make a Special Member Assessment for 12 months after a mega-catastrophe event, such as an earthquake. The findings were significant. For an event generating losses between \$30 billion and \$35 billion, the Fund would “only” need to total \$225 million in order to avert an urgent Special Assessment, and thus be in a financial position to materially mitigate the risk of systemic contagion.

In order to determine the appropriate size for the PACICC Compensation Fund, PACICC will:

- Research best practice at other safety net organizations in Canada
- Document best practice of other members of the International Forum of Insurance Guarantee Schemes
- Liaise with Finance Canada and the Insurance Bureau of Canada to ensure that changes to the Compensation Fund do not negatively impact the efforts to secure a Federal Government backstop mechanism to mitigate against the risk of systemic contagion after a tail-risk event
- Model the amount needed to pay for claims resulting from potential future defaults.

PACICC will provide a recommendation to the Board on a proposed new target for the Fund prior to the Board’s June 2022 Strategic Planning Conference.

2. What sources of financing are available to PACICC to collect this amount?

PACICC’s By-Laws and Memorandum of Operation allow the Corporation to borrow money or participate in financial derivatives. Once the Board makes a decision on the amount needed, PACICC staff will determine the best way to obtain this amount. Issues to address include:

- Could PACICC achieve the new target amount through a combination of reinsurance or lines of credit?
- What is the impact of any potential changes on PACICC’s tax status as a not-for-profit entity?
- Could Member Insurer contributions be treated as capital for purposes of the MCT (as is done in certain other international jurisdictions)?

3. How can PACICC best leverage the funds in the Compensation Fund to achieve its mission?

PACICC’s \$59 million Compensation Fund represents the Corporation’s capital. Is PACICC making the best use of this capital? PACICC staff will investigate how PACICC’s Fund can best be used to advance the Corporation’s mission. For example, could the Compensation Fund:

- be used as collateral that would allow the Corporation to issue a guarantee?
- provide a potential source of funds for reinsurance purchases?
- be used as the source of funds for capitalization of a PACICC Corp (bridge insurer)?

PACICC will provide a detailed overview of potential recommendations to the Board on both Items 2) and 3) at the Board’s June 2022 Strategic Planning Conference, with a view to having formal proposals ready for Board decision at its Fall meeting on November 3, 2022.

Priority Issue – 2023*

*To Be Determined by the PACICC Board in 2022

Management is planning to organize a Special Board Meeting (Strategic Planning Conference) in June 2022 to review and update the Strategic Plan for the Corporation. PACICC’s Priority Issue for 2023 and beyond will be determined through this process.

Emerging Issues

Florida Commission on Hurricane Loss Projection Methodology

by Donna Sirmons



The Florida Commission on Hurricane Loss Projection Methodology (Commission) was created in 1995 in the wake of disruptions in the Florida property insurance market caused by Hurricane Andrew in 1992. At the time of Hurricane Andrew, reinsurers had been using sophisticated computer models for several years to project catastrophic hurricane losses; whereas most insurers and regulators were using an older accepted method for projecting losses based on 30-year averages of actual catastrophic experience. After Andrew, the computer model projections were much closer to the actual losses than projections produced by other methods. The Florida Legislature recognized the need for expert evaluation of the computer

models as well as other recently developed or improved actuarial methodologies for projecting hurricane losses, in order to resolve conflicts among actuarial professionals, and in order to provide for both immediate and continuing improvements in the sophistication of actuarial methods used for determining catastrophe loads in residential rate filings.¹

The Florida Legislature specifically determined that reliable projections of hurricane and flood losses are necessary in order to assure that rates for residential property insurance are neither excessive or inadequate.² It is the public policy of the state of Florida to encourage the use of the most sophisticated actuarial methods to assure that consumers are charged lawful rates for residential property insurance coverage.³ The Commission was created as an independent panel of experts to provide the most actuarially sophisticated guidelines and standards for projection of hurricane and flood losses possible.⁴

The mission of the Commission is to assess the effectiveness of various methodologies which have the potential for improving the accuracy of projecting insured Florida losses and probable maximum loss levels resulting from hurricanes and floods and to adopt findings regarding the accuracy or reliability of these methodologies for use in residential rate filings (hurricane loss projections), personal lines residential rate filings (flood loss projections), and probable maximum loss calculations.⁵

Hurricane and flood loss projection models are very complex and involve many scientific disciplines beyond the expertise of a property actuary. Critical academic disciplines in catastrophe risk include meteorology, hydrology and hydraulics, structural engineering, seismology, geophysics, statistics, actuarial science, and computer information science.

The Commission's work is perhaps the most comprehensive and complex approach being taken to evaluate hurricane and flood models. The twelve-member Commission consists of five ex officio members, five members appointed by the State's Chief Financial Officer, one member appointed by the Governor, and one member appointed by the Florida Insurance Commissioner.⁶

¹ See s. 627.0628(1)(b), Florida Statutes

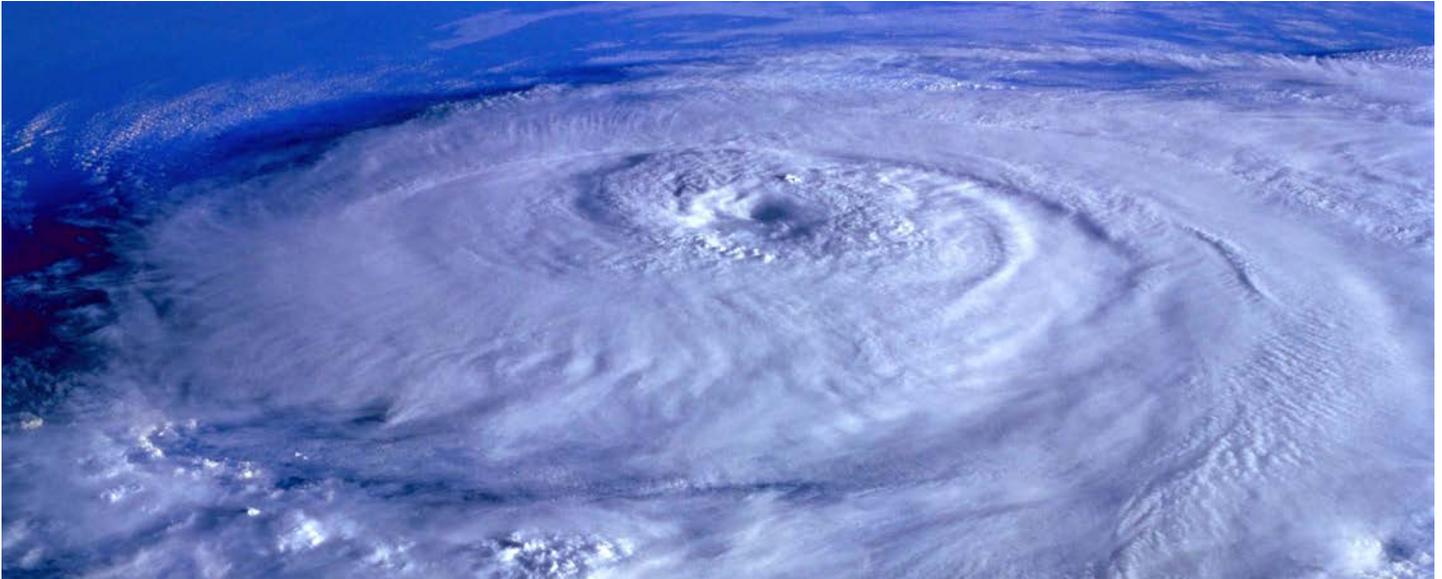
² s. 627.0628(1)(a), Florida Statutes

³ Id.

⁴ See s. 627.0628(1)(c), Florida Statutes

⁵ Hurricane Standards Report of Activities as of November 1, 2021, Florida Commission on Hurricane Loss Projection Methodology

⁶ See s. 627.0628(2)(b), Florida Statutes



Hurricane and flood models have been developed mainly by the private sector and are largely proprietary in nature. The Commission’s review process is designed to address the proprietary nature of the loss projection models, while still allowing the Commission to have full and complete access to the models and their underlying assumptions.

The Commission has developed standards for the different scientific disciplines used in the hurricane and flood loss projection models. These standards have evolved across time and continue to do so based on the best available science and technology, availability of data, and legislative mandates. The Commission uses a formal, multifaceted process for the review and adoption of standards. Florida law mandates hurricane standards be revised every two years and flood standards no less than every four years.⁷ Models must pass all standards to be determined acceptable by the Commission. Florida law requires that only those models found to be accurate and reliable by the Commission may be used by insurers for residential property rate filings in Florida,⁸ and used by the Florida State Board of Administration, to the extent feasible, in establishing reimbursement premiums for the FHCF.⁹

There is great value in the Commission’s process, as it allows, among other benefits, transparency in the model building process while protecting modelers’ intellectual property. It also promotes and establishes the validity of catastrophe models in general. All Commission documentation, including external reports and presentations to the Florida Legislature, and Commission meeting materials are available on the Commission website at www.sbafla.com/methodology.

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⁷ See s. 627.0628(3)(f), Florida Statutes

⁸ See s. 627.0628(3)(d), Florida Statutes

⁹ See s. 627.0628(3)(c), Florida Statutes

Solvency Analysis

PACICC's advice to insurers: Enjoy the good times while they last

by Zhe (Judy) Peng and Grant Kelly



The good times continued to roll with the release of the P&C insurance industry's third quarter financial results. The industry's annualized return on equity for the first nine months of 2021 was 18.0 percent. History shows that P&C insurance profitability has been widely cyclical. In the past, this current level of profitability has not proven to be sustainable for P&C insurers. Over the past 45 years, P&C insurers have reported returns on equity greater than 15 percent on 10 occasions. These years of high profitability generally appear in clusters (1977 to 1978; 1986 to 1987; and 2004 to 2006). The average

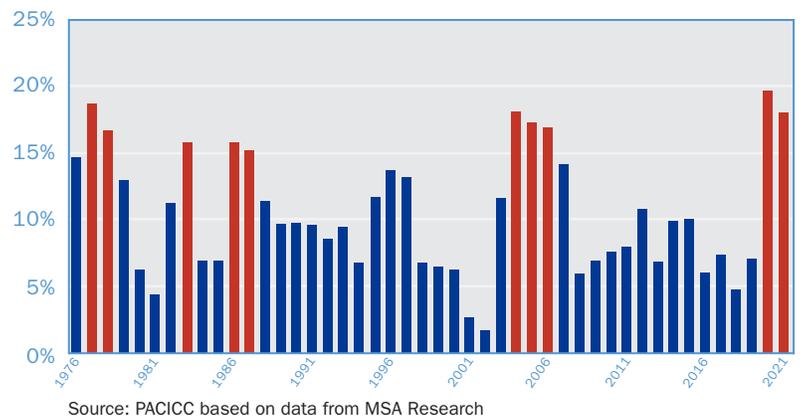
return on equity in these years of peak profitability was 16.8 percent. But, every single time that insurers have reported such above-average profits, competitive forces have quickly acted to cut the industry's return on equity in half – to an average of 7.4 percent – within two years. The high returns on equity reported by insurers in 2020 and 2021 are likely to follow this same historical pattern.

The driving force behind the industry's profitable results in 2021 is very strong underwriting performance in Auto and Commercial lines. The Auto loss ratio for the first nine months of 2021 was 61.8 percent. By contrast, in 2020, the Auto loss ratio was 67.8 percent. The 2021 Commercial Property loss ratio for the first nine months was 43.5 percent, compared to a significantly higher 66.3 percent in 2020. Results in Commercial Liability also improved. The loss ratio went from 81.5 percent in 2020, to 67.6 percent in 2021.

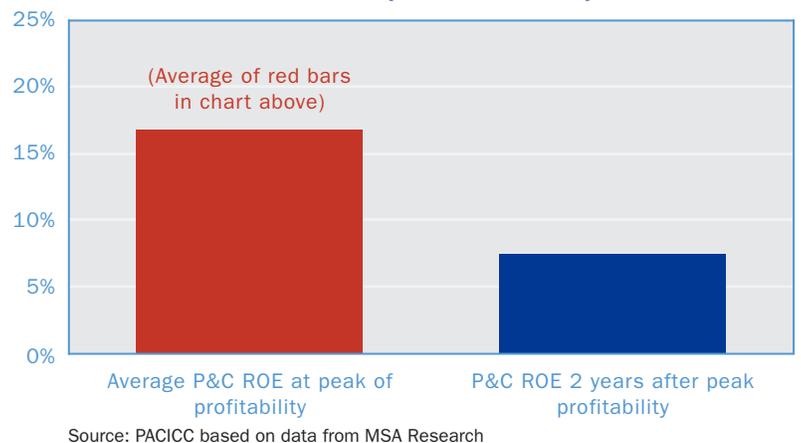
There are two potential areas that give early warning that the good times might be ending. The loss ratio for Personal Property rose to 62.7 percent in 2021, up from 55.9 percent in 2020. A portion of this increase is the \$275 million catastrophic loss resulting from the Calgary hailstorm in July. But, these results also do not include the \$450 million in claims that from the recent flooding in British Columbia.

The second source of concern is investment income. Net investment income in 2021 was 25.9 percent lower than in the same period in 2020. The future of P&C industry investment income is tied to inflation risk. If the Bank of Canada were to increase interest rates to fight inflation, then the P&C insurance industry's portfolio of bonds would be less valuable, which would further depress the industry's investment income.

P&C Return on Equity (1976 – 2021)



Good times don't last (1976 – 2021)





The industry's financial results for the first nine months of 2021 are strong. Good times are indeed great – while they last. But, insurers should be wary that history often repeats itself, with competitive forces likely already at work to ensure a reversion to the historical mean, with adjusted returns tracking toward the industry's long-run average return on equity of 10 percent.

3rd Quarter 2021 Financial Year Results

(\$ millions)	Q3 YTD 2021	Q3 YTD 2020	Percentage Change
Direct Premiums Written (DPW)	\$51,991	\$47,561	9.3%
Net Premiums Earned (NPE)	\$42,268	\$39,187	7.9%
Net Claims Incurred	\$22,766	\$26,924	-15.4%
Operating Expenses	\$13,335	\$12,194	9.4%
Underwriting Income	\$6,331	\$239	2558.9%
Net Investment Income	\$1,972	\$2,653	-25.7%
Net Income	\$6,861	\$2,725	151.8%
Combined Ratio	85.4%	99.8%	
Net Loss Ratio	53.9%	68.7%	

Select Solvency Indicator Ratios

(\$ millions)	Q3 2021	Q3 2020
Average Equity	\$50,793	\$46,325
Return on Equity (ROE)	18.0%	7.8%
Return on Investment (ROI)	2.5%	3.4%
Comprehensive ROE	18.1%	10.0%
Comprehensive ROI	2.6%	4.4%
MCT Ratio (Capital Available/Capital Required)	258.4%	239.4%
BAAT Ratio (Net Assets/Capital Required)	297.5%	306.8%

Source: MSA Research as of November 25, 2021.

Failed Insurers Around the Globe

by Zhe (Judy) Peng and Grant Kelly

Despite the continued evolution of best practice in enterprise risk management and the ever-increasing rigour of prudential oversight across the developed world, P&C insurance companies do still fail and have to be closed by their regulators. When it next happens in Canada, it will certainly be headline news. Our last recorded failure of a P&C insurer, Home Insurance Company, occurred all the way back in 2003. But, around the globe, notable failures of well-established insurers have continued, even in highly developed markets.

In this article, we select three representative P&C insurer failures; in Denmark, the US, and New Zealand. In particular, we look into the reasons why each insurer failed, what the consequences were to policyholders, and the size of the bill to the rest of the P&C industry in their respective jurisdictions.

Table 1 – Summary of Facts

Insurer	Home Country	Reason of Failure	Year of Failure	# of policyholders	\$ Assessment
Gefion	Denmark	Rapid expansion, poor governance	2021	600,000	N/A [on-going]
Merced	US	Catastrophic loss	2018	8,000	\$71.2M [by Dec 2019]
CBL	New Zealand	Poor governance	2018	12,500 [Ireland] 10,000 [New Zealand]	No guarantee fund in NZ Ireland N/A

Notes: \$ Assessment is the dollar amount of funds injected by the local insurance guarantee fund.

Gefion Insurance (Denmark, Failed in 2021)

Established in June 2014, the Copenhagen-based Gefion Insurance A/S offered motor insurance to customers in eight European countries, with the UK being its largest market. When Gefion experienced a 53% annual growth in its gross premium income in 2018, its solvency ratio hit 72%, falling well below the statutory level of 100%. This rapid expansion of Gefion caused concern for the regulator, the Danish Financial Supervisory Authority (DFSA, or Finanstilsynet), which initiated an investigation in November 2018.

In April 2019, DFSA determined that Gefion has overstated its income by including deferred taxes and ordered it to inject an additional DKK 39.2M (around USD \$6M) in capital. Accordingly, Gefion revised down its solvency ratio for previous years. However, Gefion failed to meet the DFSA's capital requirement by March 2020. As a result, DFSA decided that Gefion should cease writing new business, which effectively put the insurer into run-off. On June 29, DFSA proceeded to revoke Gefion's business licence. Eventually, Gefion declared bankruptcy on June 7, 2021.

Table 2 – Key Financial Ratios of Gefion Insurance A/S (2014 to 2019)

Key ratios (in %)	2019	2018 restated	2018 original	2017	2016	2015
Gross Expense Ratio	19.8%	25.6%	25.6%	31.1%	51.1%	295.7%
Gross Claims Ratio	93.1%	90.5%	90.5%	66.8%	38.9%	59.7%
Reinsurance Ratio	- 9.8%	- 12.4%	- 14.3%	0.8%	10.0%	9.2%
Combined Ratio	103.1%	103.6%	101.8%	98.7%	100.9%	364.7%
Operating Ratio	103.1%	103.6%	101.8%	98.7%	100.9%	382.0%
Return on Equity (after tax)	- 429.4%	- 161.2%	- 88.2%	18.1%	- 7.3%	- 49.0%
Solvency Ratio (unaudited)				123%	102%	150%
Solvency Ratio (restated)			72%	119%	95%	150%

Source: Gefion Insurance A/S Annual Reports (2016 – 2019)

Merced Property and Casualty Company (US, Failed in 2018)

Merced Property and Casualty Company, founded in 1906, was a small regional insurer based in Atwater, California. Like many such insurers, Merced had particularly concentrated risks. More than 60% of its net premium written came from homeowner insurance, and its insured risks tended to cluster in high fire severity zones.

On November 8, 2018, the Camp Fire (as it was christened) scorched more than 153,000 acres of land and destroyed 18,793 buildings in Butte County, California. This included every building in the town of Paradise. The estimated claims in that town alone amounted to \$64M, which exceeded Merced's \$23M worth of capital. Despite substantial reinsurance coverage, Merced suffered a net asset deficit of \$1.36M. The catastrophe thus led to the insurer's liquidation on November 30, 2018 – only weeks after the fire. At that time, 7,436 policyholders were seeking payment of their claims, or refunds of premiums.

On December 10, 2018, the California Insurance Guarantee Association (CIGA) stepped in to take over Merced's claim responsibilities.

Table 3 – Key Financial Ratios of Merced Property & Casualty Co. (2012 to 2017)

Key ratios (in %)	2017	2016	2015	2014	2013	2012
Expense Ratio	53.25%	58.68%	59.19%	58.62%	58.10%	52.09%
Loss Ratio	44.03%	23.77%	39.26%	31.92%	23.08%	33.33%
Combined Ratio	114.44%	- 105.14%	125.62%	114.27%	103.70%	105.19%
Operating Ratio	100.83%	87.02%	106.16%	91.55%	86.66%	99.18%
Retention Ratio (NPW/GPW)	85.89%	85.17%	85.86%	86.86%	85.12%	85.13%
Return on Equity (ROE)	- 1.97%	- 3.24%	1.18%	4.97%	- 18.42%	- 0.90%

Source: SNL Insurance

CBL Insurance (New Zealand, Failed in 2018)

CBL Insurance, founded in 1973, was a New Zealand insurer that specialized in insurance related to construction and real estate. In 2016, CBL's parent company – CBL Corporation – acquired Securities and Financial Solutions (SFS), the largest insurer offering builders' warranty in France. This acquisition also exposed the Corporation to substantial reinsurance exposure risks.

From 2013 on, CBL's balance sheet kept deteriorating – although this was not visible to external view. In retrospect, CBL had shortfalls of \$86.6M in 2013, \$102M in 2014, \$104M in 2015, \$98.6M in 2016, and \$136.5M in 2017, compared to the statutory minimum capital requirement. In December 2017, CBL's solvency ratio fell to 25%, suggesting severe under-reserving. Although CBL's key indicators suggested good performance (see Table 3), these numbers were largely exaggerated.

On February 5, 2018, CBL Corporation announced a net loss in the range of \$75M to \$85M, which it ascribed to increased reserving and operating losses in France. On February 23, the Reserve Bank of New Zealand placed CBL into interim liquidation, which became permanent in November 2018.

The failure of CBL forced two European insurers into run-off, and brought significant losses to two retirement savings providers in New Zealand. As of November 2021, the liquidation of CBL is still ongoing.

Table 4: Key Financial Ratios of CBL Insurance (2011 to 2016)

Key ratios (in %)	2016	2015	2014	2013	2012	2011
Expense Ratio	42.12%	43.01%	42.89%	48.11%	48.63%	46.79%
Loss Ratio	33.14%	35.82%	41.31%	37.87%	30.54%	33.91%
Combined Ratio	75.26%	78.84%	84.20%	85.98%	79.17%	80.70%
Operating Ratio	74.05%	74.26%	83.00%	82.02%	74.26%	75.21%
Retention Ratio (NPW/GPW)	91.10%	90.79%	90.54%	73.13%	67.06%	62.44%
Return on Equity (ROE)	30.19%	30.95%	31.57%	33.10%	26.56%	17.80%
Solvency Ratio	188.60%	155.20%	138.80%	120.60%		

Source: Calculated from CBL Insurance's Annual Reports

As these three case studies illustrate, P&C insurers do still fail. Thankfully, this has not occurred in Canada since 2003. But it very likely will. The good news for Canadians is that PACICC stands ready to protect insurance consumers when that happens.



PACICC Risk Officer's Forum

Upcoming Risk Officer's meetings and webinars - by Ian Campbell



The Risk Officer's Forum seeks to enhance risk management within the P&C insurance industry by:

- Discussing and sharing risk management best practices within the industry
- Reviewing and communicating topical risk management information
- Serving as a risk management resource for PACICC and for insurance regulators
- Discussing major existing risks and significant emerging risks within the industry
- Providing resources and information to facilitate research of risk management and related governance topics.

Risk Officer's Forum Meetings

Forum Meeting include a keynote speaker on a topical industry issue, followed by industry/expert presentations on current ERM issues.

2022 Forum Meeting Dates:

Thursday, April 14

Keynote: **Jacqueline Friedland**, P&C Insurance Group, OSFI (confirmed)
Discussion Panel 1: Model Risk
Discussion Panel 2: Operational Risk

Thursday, September 15

Keynote: CEO Perspective on the Risk Function
Discussion Panel 1: Inflation Risk
Discussion Panel 2: Human Resources and Talent Management

November* (Date to coincide with OSFI's Risk Management Seminar)

Keynote: Highlights from PACICC Strategic Planning Conference
Discussion Panel 1: Class Action Litigation (Status/Update)
Discussion Panel 2: Supply Chain Risks

Emerging Risks Webinars

Three Emerging Issues Webinars are held each year, connecting Forum members across Canada in a deep-dive discussion on technical aspects of a specific ERM issue.

2022 Emerging Risk Webinar Dates:

Thursday, February 24 (Industry Panel Discussion)

Topic: Risk Identification and Risk Assessment

Thursday, May 19

Topic: Cyber Risk/Operational Risk Resiliency

Thursday, October 20

Topic: Privacy Compliance and Reputational Risk



For event registration information (pre-registration is required) or to be included in future Risk Officer's Forum member advisories, please contact Ian Campbell, Vice President, Operations, PACICC at icampbell@pacicc.ca or 416/364-8677, Ext. 3224.