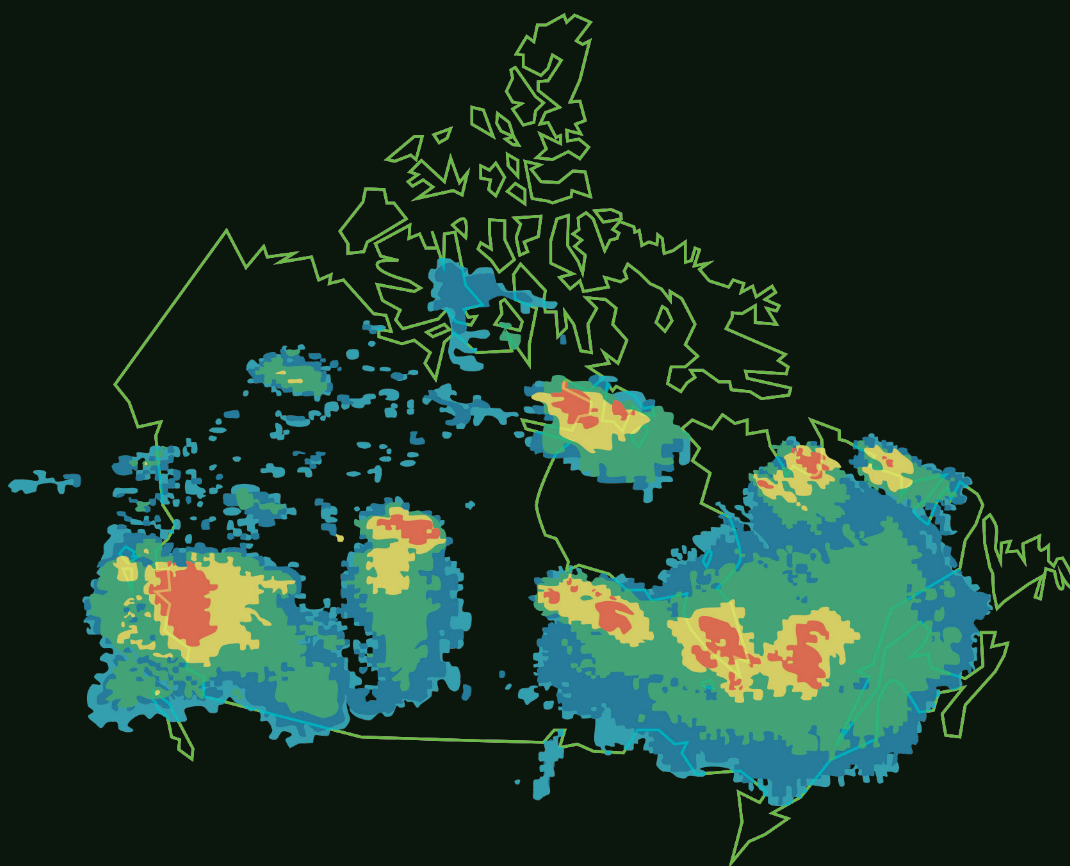
PACICC

Property and Casualty Insurance Compensation Corporation
Société d'indemnisation en matière d'assurances IARD

When it Rains... it Pours

Analyzing failure clusters and Canada's capacity to respond



By

Grant Kelly, Zhe (Judy) Peng and Ian Campbell

The latest installment in the PACICC *Why insurers fail* series

2024

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PACICC's Vision, Mission and Principles

Vision

To be, and to be recognized as, the authority in Canada supporting the resolution of severely distressed home, auto and commercial insurance companies.

Mission Statement

The mission of the Property and Casualty Insurance Compensation Corporation (PACICC) is to protect eligible policyholders from undue financial loss in the event that a Member Insurer becomes insolvent. We work to minimize the costs of insurer insolvencies and seek to maintain a high level of consumer and business confidence in Canada's property and casualty (P&C) insurance industry through the financial protection that we provide to policyholders.

Principles

- In the unlikely event that an insurance company becomes insolvent, policyholders should be protected from undue financial loss through prompt payment of covered claims
- Financial preparedness is fundamental to PACICC's successful management support of insurance company liquidations, requiring both adequate financial capacity and prudently managed compensation funds
- Good corporate governance, well-informed stakeholders and cost-effective delivery of Member services are foundations for success
- Frequent and open consultations with Members, regulators, liquidators and other stakeholders will strengthen PACICC's performance
- In-depth P&C industry knowledge – based on applied research and analysis – is essential for effective monitoring of insolvency risk

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Executive summary

Last year, PACICC introduced the Global Failed Insurer Catalogue (GFIC), listing 547 P&C and Life insurers that failed between 2000 and 2022, across 55 different jurisdictions (the 2024 GFIC Update will be published later this year). A key finding from this research on insurer failures around the world was that, when insolvencies occur, they often do so in "clusters" – which we define as three or more failures within three years. This international pattern matches Canada's own experience with insurance company failures (although our own cluster time periods were slightly longer). Some 35 Property and Casualty (P&C) and Life insurance companies failed in Canada in three identifiable clusters between 1981 and 2003.

We have now conducted a "deep dive" into the specific experience of three countries which have recently witnessed significant failure "clusters." The evidence in Demark, the United States (two distinct clusters in Florida and Louisiana) and Thailand clearly demonstrates that a large cluster of insurance company failures can be so substantial as to test the financial resources of an Insurance Guarantee Fund.

In Demark, the government responded by limiting its exposure to risks outside of the country, and the Danish Guarantee Fund was forced to materially increase the fees levied on Member insurers. In Florida and Louisiana, the Guarantee Funds were compelled to borrow the funds required to protect policyholders. Rather than immediately assessing insurers for the required funds, they instead turned to the bond market for liquidity, with the debt secured by future Assessments of insurers active in those jurisdictions. Finally, in Thailand the size and scope of the cluster of failures overwhelmed their Insurance Guarantee Fund, and the Government was forced to intervene to "bail out" the industry.

PACICC has always modelled its ability to protect policyholders from the failure of any single Member Insurer. It manages its financial capacity to ensure that it is in a position to respond in a timely manner to the failure of an average-sized Member company. PACICC has also modelled the potential systemic risk from a catastrophic event which causes serial failure, and has identified a "Tipping Point" beyond which its funding mechanism would be simply overwhelmed. However, PACICC has not previously considered modelling its capacity to respond to a "cluster" of Member Insurer insolvencies in a single year, or a brief period of years.

This paper finds that PACICC's current funding mechanism is:

- adequate to handle a cluster of failures with a total required Assessment of up to $1.3 billion per year
- able to handle a cluster of failures with a combined total required Assessment of as much as $2.25 billion in a single year. However, this level of Assessment would need to be collected over at least two years, given limits to our Assessment Mechanism, with the risk that not all policyholder obligations could be met in a timely fashion. It is also important to note that PACICC's ability to handle further failures in Year 2 would also be inhibited. It would not be in a position to manage a cluster of failures of this size in successive years
- unable to provide the liquidity necessary to cover Year 1 cashflow obligations for a cluster of failures with a total required Assessment of between $2.25 billion and $3 billion. There would be a cash shortfall that would require PACICC to borrow funds to meet these obligations
- inadequate to respond to any cluster of failures resulting in a total required Assessment of greater than $3 billion. Such a cluster would trigger systemic issues for Canada's P&C insurance industry.

Introduction

This is the 18th edition in PACICC's *Why insurers fail* research series. It has been more than 20 years since a Canadian insurance regulator lost confidence in, and forced the liquidation of, a Property and Casualty (P&C) insurer under Canada's *Winding-up and Restructuring Act (WURA)*. This research program serves to remind stakeholders that insurance companies can and do fail. It seeks to profile lessons learned from past failures in Canada, as well as the experience in other jurisdictions. PACICC seeks to ensure that past mistakes (domestic and/or international) are not repeated. We also seek to ensure that, when the next Canadian P&C insurer fails, our organization is able to respond effectively and fulfil its mission to protect policyholders.

Last year, PACICC introduced the *Global Failed Insurer Catalogue (GFIC)* listing 547 P&C and Life insurers that failed between 2000 and 2022 across 55 different jurisdictions. A key finding from this research on insurer failures around the world was that when insolvencies occur, they often do so in "clusters" – which we define as three or more failures within three years. PACICC has identified clusters of failures occurring 43 times in 27 separate jurisdictions since 2000. This international pattern matches Canada's own experience with insurance company failures. Some 35 P&C and Life insurance companies failed in Canada in three distinct clusters between 1981 and 2003.

Another finding from our GFIC study was that it is normal for almost every jurisdiction to experience long periods of calm with no insurer insolvencies. Our Catalogue identified 34 jurisdictions that reported several clusters of failures, with at least six years between them. Canada's last insolvency was in 2003. Our domestic industry has enjoyed a long period of calm since then. However, our research shows clearly that, in many jurisdictions, such a period of calm is simply a prelude to the next storm.

PACICC has modelled its ability to protect policyholders from the failure of any single Member Insurer. It manages its financial capacity to ensure that it is in a position to respond in a timely manner to the failure of an average-sized Member company. PACICC has also modelled the potential systemic risk from a catastrophic event which causes serial failure, and has identified a "Tipping Point" beyond which our funding mechanism would be simply overwhelmed. However, we have not previously considered modelling our capacity to respond to a "cluster" of Member Insurer insolvencies in a single year, or a brief period of years.

Specifically, this paper will:

1. review Canada's history of insurance failure "clusters"
2. use the experience of other jurisdictions that report clusters of P&C insurance failures to quantify the expected nature (e.g. how many, over what period of time) of such failure "clusters"
3. assess PACICC's capacity to respond effectively to a future cluster of failures in Canada of various sizes, and over a range of periods
4. provide the results of a deep dive into the consequences of failure clusters in Denmark, Florida, Louisiana and Thailand that challenged the Insurance Guarantee Funds in these jurisdictions, and review the responses from those Funds and the governments in those jurisdictions.

Three distinct clusters of failures occurred in Canada between 1981 and 2003

Canada has experienced three significant clusters of insurance failures since 1981.

PACICC was established as a direct result of the first of these clusters. There were 10 P&C insurers that failed between 1981 and 1986. The Federal Department of Insurance subsequently proposed that Canada establish Insurance Guarantee Funds to protect Canadian policyholders. This provided the impetus for Canada's provincial and territorial governments and the P&C and Life insurance industries to create both PACICC and Assuris. (Assuris is a peer to PACICC for the Life insurance sector.)

Table 1 – Cluster failures in Canada

Cluster 1: 10 P&C insurers failed in Canada between 1981–1986

Year of failure	Insurer	Type
1981	**Strathcona General Insurance Company**	Federal
1981	**Pitts Insurance Company**	Federal
1982	**Cardinal Insurance Company**	Federal
1983	**Northern Union Insurance Company**	Manitoba
1983	**Canadian Great Lakes Surety Company**	Ontario
1984	**Mennonite Mutual Hail Insurance Company**	Saskatchewan
1985	**Northumberland Insurance Company**	Federal
1985	**Ideal Mutual Insurance Company**	Federal
1986	**United General Insurance Company**	Federal
1986	**Midland Insurance Company**	Federal

Source: PACICC

Both PACICC and Assuris were established in 1989. This occurred just in time to assist policyholders with a second (and even larger) cluster of insurance company failures. There were 20 P&C and Life insurers that failed between 1989 and 1995.

Table 2 – Cluster failures in Canada

Cluster 2: 20 P&C and Life insurers failures between 1989–1995

Year of failure	Insurer	Type	Guarantee Fund involved
1989	**Phoenix Assurance Company of Canada**	Federal	None
1989	**Ontario General Insurance Company**	Ontario	None
1989	**Eaton Bay Insurance Company**	Federal	None
1989	**The Century Insurance Company of Canada**	Federal	None
1989	**American Mutual Liability Insurance**	Federal	PACICC
1989	**Advocate General Insurance Company**	Federal	PACICC
1989	**Ontario General Insurance Company**	Ontario	PACICC
1989	**Phoenix Assurance Company of Canada**	Federal	None
1990	**National Employers Mutual General Insurance Association Ltd**	Federal	None
1991	**Canadian Universal Insurance Company**	Newfoundland	PACICC
1992	**Les Coopérants**	Quebec	Assuris
1993	**Sovereign Life**	Federal	Assuris
1993	**American Insurance Company**	Federal	PACICC
1993	**Beothic General Insurance Company**	Newfoundland	PACICC
1994	**Confederation Life Insurance Company**	Federal	PACICC
1994	**Hiland Insurance Company**	Newfoundland	Assuris
1995	**Abstainers' Insurance Company**	Ontario	PACICC
1995	**Orion Insurance Company PLC**	Federal	None
1995	**Maplex General Insurance**	Ontario	PACICC
1995	**Kansa General International Insurance Company**	Federal	None

Source: PACICC

PACICC was able to protect policyholders in nine of these failures. PACICC's Memorandum of Operation (MoO) details the types of insurance that are protected by PACICC, and which types of insurance are excluded. Some of the failed insurers offered only policy types that were excluded from PACICC coverage (e.g. surety bonds). Assuris was able to respond to protect Life insurance policyholders from all three Life insurer insolvencies during this cluster of failures.

After another brief period of calm, a third cluster of failures occurred between 2000 and 2003, as another six Canadian P&C insurers failed. PACICC was able to act to protect policyholders in five of those cases.

Table 3 – Cluster failures in Canada

Cluster 3: Six insurer failures in Canada between 2000–2003

Year of failure	Insurer	Type	Guarantee Fund involved
2000	**GISCO la Compagnie d'Assurance**	Quebec	PACICC
2001	**Reliance Insurance Company**	Federal	PACICC
2001	**Canadian Millers' Mutual Insurance Company**	Ontario	PACICC
2001	**Alta Surety Company**	Federal	None
2002	**Markham General Insurance Company**	Ontario	PACICC
2003	**Home Insurance Company of Canada**	Federal	PACICC

Source: PACICC

In 2003, Home Insurance Company was the last Canadian insurer to be closed by regulators. That was 21 years ago. However, it must also be noted that it was also the 35th insurer closed by Canadian regulators in the preceding 22 years.

In the next section, we will show that Canada's experience with insurance failures is very similar to many other jurisdictions in the Global Failed Insurer Catalogue which have also experienced failure "clusters."

The occurrence of failure clusters internationally since 2000

While things have been calm in Canada since 2003, clusters of insurance company failures continue to occur regularly in other jurisdictions. So far, PACICC has identified 43 such clusters of failures in 27 jurisdictions since 2000.

Some 30 of these clusters involved primarily, or entirely, P&C insurers. Clusters accounted for one-third of total insurer failures between 2000 and 2023. In fact, almost half (49.0%) of all P&C insurance company failures between 2000 and 2023 were part of a cluster.

Table 4 – Jurisdictions that reported a cluster of insurer failures

	Jurisdiction	Insurer failure clusters
1.	**Argentina**	three failures between 2016 and 2019
2.	**Azerbaijan**	six failures between 2014 and 2016
3.	**Brazil**	11 failures between 2000 and 2002
4.	**Brazil**	seven failures between 2013 and 2016
5.	**Canada**	six failures between 2000 and 2003
6.	**China (Mainland)**	six failures between 2019 and 2020
7.	**Denmark**	three failures between 2018 and 2021
8.	**Gibraltar**	four failures between 2016 and 2019
9.	**Ireland**	five failures between 2018 and 2021
10.	**Italy**	four failures between 2008 and 2011
11.	**Japan**	six failures between 2000 and 2001
12.	**Korea**	five failures between 2001 and 2004
13.	**Luxembourg**	four failures between 2018 and 2021
14.	**Netherlands**	four failures between 2006 and 2008
15.	**Philippines**	four failures between 2018 and 2021
16.	**Philippines**	seven failures between 2014 and 2016
17.	**Romania**	three failures between 2003 and 2005
18.	**Romania**	three failures between 2009 and 2011
19.	**Romania**	three failures between 2015 and 2017

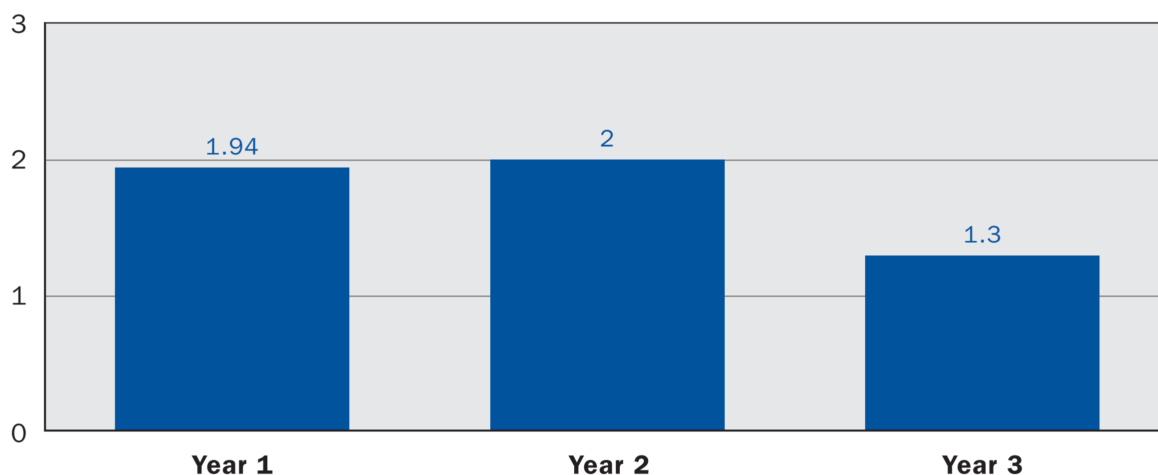
20. Romania	three failures between 2020 and 2021
21. Russia	six failures between 2013 and 2017
22. Spain	nine failures between 2000 and 2002
23. Spain	five failures between 2004 and 2007
24. Spain	five failures between 2009 and 2010
25. Spain	five failures between 2011 and 2014
26. Thailand	four failures between 2016 to 2018
27. Thailand	four failures between 2021 and 2022
28. United Kingdom	12 failures between 2000 and 2001
29. United Kingdom	three failures between 2007 and 2009
30. California, USA	10 failures between 2001 and 2003
31. Florida, USA	12 failures in 2009 and 2011
32. Florida, USA	seven failures in 2021 and 2022
33. Illinois, USA	eight failures in 2001 and 2002
34. Illinois, USA	three failures in 2012
35. Illinois, USA	three failures in 2020
36. Louisiana, USA	four failures in 2022
37. New Jersey, USA	five failures between 2007 and 2008
38. New York, USA	three failures in 2010
39. Oklahoma, USA	three failures between 2009 and 2010
40. Oklahoma, USA	three failures between 2013 and 2014
41. Texas, USA	five failures between 2002 and 2005
42. Texas, USA	five failures between 2006 and 2008
43. Texas, USA	three failures between 2019 and 2021

Source: PACICC

What does an average cluster look like?

In these jurisdictions, an average cluster of insurance company failures sees 5.25 insurers failing over three years. The largest clusters (based on the number of failed insurers) were in California (15 failures in four years) and the United Kingdom (11 failures in two years).

Figure 1 – What does an "average" cluster of insurer failures look like?



Source: PACICC

Year 1 – In an average cluster, 1.9 insurers fail in Year 1. The maximum number of insurers that failed in Year 1 of a cluster is five (California 2001–2003).

Year 2 – The average number of failures in Year 2 of a cluster is two. However, the maximum number of insurers that failed in the second year of a cluster was 10 in the United Kingdom (2001).

Year 3 – There were 21 jurisdictions that reported additional failures in Year 3 of a cluster. The average number of failures was 1.3 insurers. There was significant variation, with five insurers failing in the third year of a cluster in the Philippines (2002), and four insurers failing in Florida (2022).

Year 4 – There were 14 jurisdictions that reported clusters extending into a fourth year.

Year 5 – Just a few jurisdictions, such as Brazil and the Philippines, reported a cluster of failures that stretched into a fifth year.

Is PACICC ready to handle a cluster of failures?

To properly examine whether PACICC's funding mechanisms are adequate to protect Canadian policyholders from a cluster of insurance company failures, it is first necessary to understand PACICC's role when a Member Insurer fails in Canada.

It is the responsibility of insurance regulators to make the determination that they, on behalf of the public, have lost confidence in a specific supervised insurance company's ability to fulfil its promises to policyholders. In Canada, when a regulator loses confidence in an insurer (whether federally or provincially supervised), they begin the legal process outlined in *WURA*. The Court is asked to appoint a Liquidator to manage the winding-up of the company. Settling the estate of an insurer company is a complicated and expensive process that can take decades to complete.

When an insurance company enters into liquidation under *WURA*, the Court will normally freeze the assets in the estate until the Court-appointed Liquidator has had an opportunity to assess all of the claims against the failed insurer's estate. This is where PACICC's role becomes significant, as we step in to provide financial support to the Liquidator to ensure that Canadian policyholders do not experience undue financial hardship as a result of the slow process of estate resolution. PACICC provides the funds necessary to: cover the financial shortfall in the estate; ensure the liquidity required to settle valid claims for (and against) policyholders; and refund unearned premiums. Compensation for legitimate claims, as well as for the return of unearned premium, is provided – via the Liquidator – up to defined PACICC benefit limits. In turn, compensated policyholders assign their claim to PACICC (up to the amount received), and PACICC then has priority to reclaim from the estate a portion of the costs it incurs. The costs ultimately incurred by PACICC Members reflect both the funding provided to cover the shortfall in the estate of the insolvent insurer, <u>and</u> the delay of years or decades between when it provides cash compensation and when it subsequently recovers funds (if any) from the estate.

All funding required by PACICC to address the needs described above is secured through Assessments charged to other "surviving" Member insurance companies.

When a Member Insurer is closed by the Regulator

PACICC staff has developed the capacity to model an initial estimate of the expected Assessment requirements. This information can be provided to the PACICC Board immediately when the winding-up of a Member Insurer is declared.

PACICC's MoO sets out three steps to be taken when a Member Insurer is closed by a regulator:

1. The Board of Directors shall estimate an amount (the "Total Assessment") which reflects the best estimate of the cost in respect of the insolvency of a particular Member
2. The Board shall allocate the Total Assessment among the Participating Jurisdictions (i.e. provinces and territories) in which the insolvent Insurer was writing policies
3. The Corporation shall levy Assessments on each Member which is licensed…in a Contributing Participating Jurisdiction.

However, PACICC's MoO limits the total annual amount that the Corporation can require of insurers in any single calendar year. PACICC Assessments are limited to 1.5% of covered direct premiums written by an insurer in the prior year. In 2024, PACICC's maximum Assessment capacity is approximately $1.3 billion. Each Member is responsible for paying their full share of any Assessment; however, it is only required to pay this 1.5% maximum Assessment amount annually. Any portion owing above this maximum amount would carry over to subsequent years. There is no limit on the number of years that an insurer can be required to pay PACICC's maximum Assessment. If a Member is at the maximum Assessment threshold and another insolvency occurs, the cost of the new insolvency would be added to future payment obligations.

With this Assessment framework now clear, we can evaluate PACICC's capacity to respond effectively in a range of cluster scenarios.

Modelling potential clusters across PACICC's Membership

It should be apparent from the outline above, that PACICC's ability to support the liquidation of a cluster of failures depends not as much on the number of insurers that fail as part of such a cluster, but rather on the total amount of the Assessment required in a single year. The total required Assessment is the sum of the best estimates for funds required to return unearned premiums and pay eligible claims – up to PACICC limits – for each failed insurer in a cluster.

For this paper, we have now modelled the impact of Assessments on PACICC Member Insurers for clusters of different sizes and with different timing. PACICC Assessments are allocated to Member Insurers based on each province's share of PACICC's total national eligible premiums. These shares can be seen in the adjacent table.

To model the expected cashflow requirements of any estate, we assume that claims are paid using a claim development curve published by the Reinsurance Association of America. In addition, we assume that all unearned premiums will be rebated within 12 months from the date of the insolvency (up to defined PACICC limits).

Key findings from this modelling work are:

Table 5 – Share of total PACICC Member Direct Written Premiums by Province or Territory in model

Province	Share of total PACICC Member Direct Written Premiums
Ontario	42.9%
Quebec	19.9%
Alberta	16.2%
British Columbia	10.6%
Nova Scotia	2.4%
New Brunswick	2.2%
Manitoba	2.1%
Saskatchewan	1.6%
Newfoundland and Labrador	1.4%
Prince Edward Island	0.4%
Yukon	0.1%
Northwest Territories	0.1%
Nunavut	0.1%

Source: PACICC

1. PACICC's current funding mechanism is adequate to handle a cluster of failures with a total required Assessment of up to $1.3 billion per year. This means that PACICC can collect this level of required Assessment without causing the MCT/BAAT ratios of any Member Insurer to fall below the Supervisory Minimum ratio of 150%. In this first scenario, PACICC's collection of the total required Assessment would occur quickly enough (assuming that all payments are received within 60 days) that it could meet 100% of the anticipated cashflow requirements of the estate.
2. Even better news, our modelling indicates that PACICC would be able to "reset" and manage a second cluster of failures, also resulting in a total required Assessment below $1.3 billion in the next year.

This means that PACICC would be able to manage the failures of any two Member Insurers, each smaller than its 56th largest Member Insurer, in a single year.

PACICC would also be able to manage a cluster of three failures, each smaller than its 66th largest Member Insurer, in a single year.

PACICC would be able to manage a cluster of four failures, each smaller than its 72nd largest Member Insurer, in a single year.

3. PACICC's current funding mechanism is also adequate to handle a cluster of failures with a combined total required Assessment of between $1.3 billion and $2.25 billion in one year.

   In this second scenario, PACICC can collect the level of total required Assessment without causing the MCT/BAAT scores of any Member Insurer to fall below the Supervisory Minimum ratio of 150%. And PACICC's collection of the total required Assessment would occur quickly enough that it could meet the anticipated cashflow requirements of the estate.

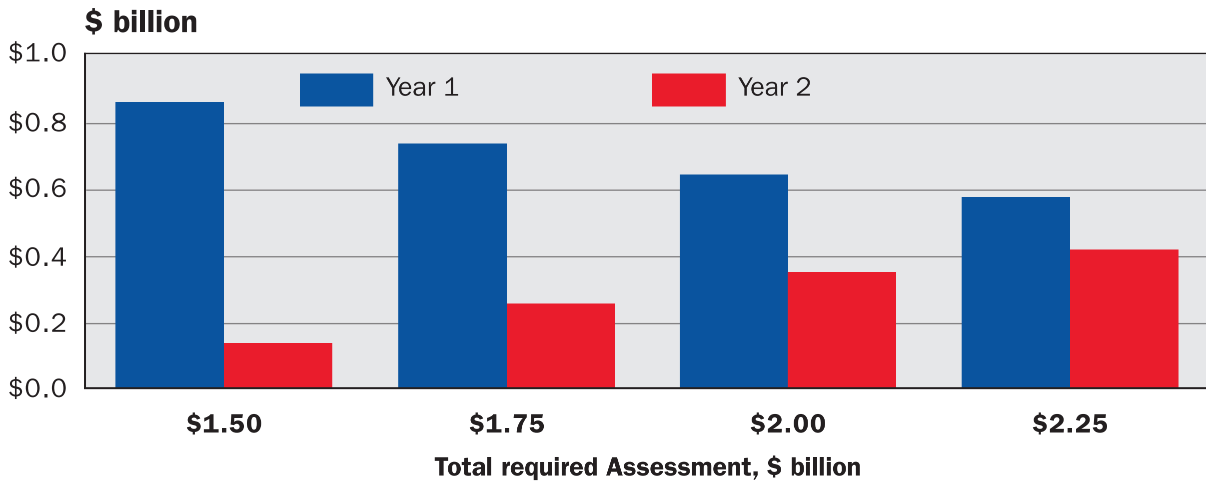
4. PACICC could handle one year of failures at this higher level of Assessment. But, it would not be able to manage two years of successive failures.

5. PACICC would be unable to collect all the Year 1 cashflows required to repay unearned premiums and finance the payment of eligible claims in Year 1 for any cluster of failures with a Total Assessment of between $2.25 billion and $3 billion. There would be a cash shortfall that would necessitate PACICC borrowing funds to meet policyholder obligations in a timely manner.

   In this third scenario, a majority of PACICC's Member Insurers would reach their maximum annual Assessment limit. As a result, it would take multiple years to collect the required funds. PACICC's current funding mechanism would thus be unable to address any additional subsequent failures in Year 2.

   To make matters worse, PACICC would not be able to collect enough funds in Year 1 of a cluster of this size to meet the expected cashflow needs of the estates of the failed insurers, and would thus fail in its mission to protect policyholders, unless and until it was able to borrow the required funds.

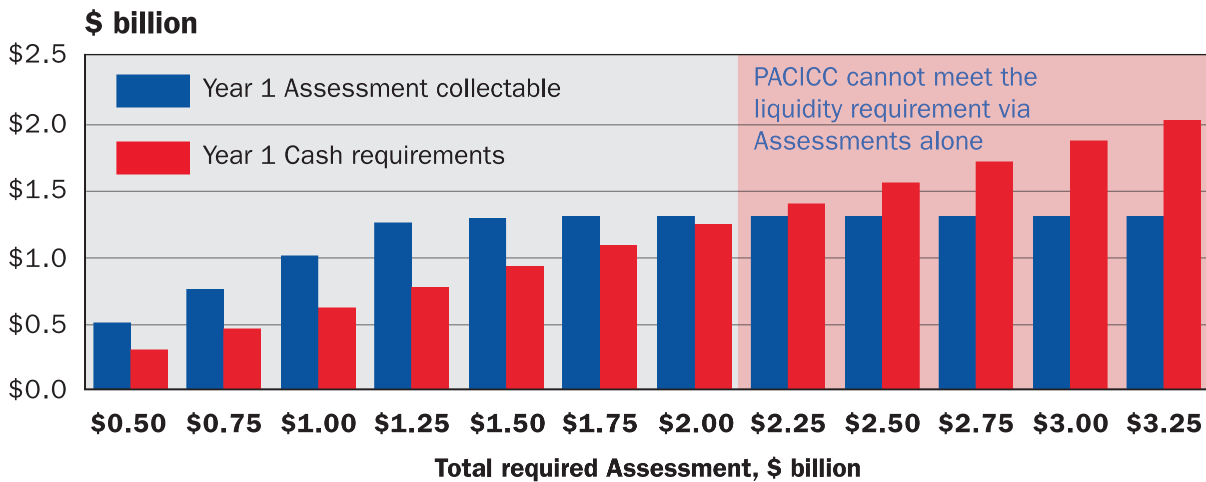
Figure 2 – Share of total required Assessment each year



PACICC is able to collect the total required Assessment for a cluster of failures of between $1.5 billion and $2.25 billion. However, this level of Assessment would need to be collected over at least two years. PACICC's ability to address any further failures in Year 2 would be inhibited.

Source: PACICC

Figure 3 – Assessment capacity less Year 1 cashflow requirements



PACICC is not able to fund the Year 1 cashflow requirements of a cluster of failures with a combined Assessment of $2.25 billion. It is at this point that the estate's cash liquidity needs (red bars) exceed PACICC's Assessment Capacity (blue bars).

Source: PACICC

6. Any cluster of failures resulting in a total required Assessment of greater than $3 billion would cause systemic issues across PACICC's membership. An Assessment of this size would cause otherwise viable Member Insurers to report a MCT/BAAT ratio below the Supervisory Minimum ratio of 150%.

   If faced with a cluster of failures of this size, PACICC's Board of Directors would be forced to consider activating Paragraph 36 of PACICC's MoO (often described as "the circuit breaker"), which reads:

Financial Difficulties

If the making of Compensation Payments, either actual or anticipated, is at any time likely to cause financial difficulties for the property and casualty industry in a Participating Jurisdiction, or for the Corporation, to the detriment of the public, the Corporation shall participate in discussions with the Insurance Regulatory Authority of that Participating Jurisdiction or all Participating Jurisdictions, as the case may be, with a view to an appropriate modification of the Compensation Payment arrangements provided for herein, and while such discussions take place, the Corporation may defer the making of Compensation Payments as is appropriate in the circumstances.

"Financial difficulties" is not a defined term in the MoO or in PACICC's By-Law. This clause has never been used. The largest General Assessment that PACICC has ever levied on the insurance industry was for $40 million. A General Assessment of this size did not result in "financial difficulties" to PACICC or to Canada's P&C insurers. For purposes of our modelling, we have assumed that our Board would conclude that forcing otherwise solvent Members to pay Assessments requiring capital which would render them technically insolvent (below the Supervisory Minimum ratio of 150%) was the equivalent of causing "financial difficulties."

The Board's decision to act under Paragraph 36 would potentially have very serious implications for PACICC and Canada's P&C insurers. Exercising the "financial difficulties" clause could generate significant regulatory and/or political backlash against Canada's P&C insurers. Exercising this clause could also undermine PACICC's mission to maintain public confidence in Canada's P&C insurance industry. This point must be balanced against the possibility of PACICC Assessments causing systemic stress, which would also undermine confidence in the industry.

It is critical to note that these estimates assume that the solvency of Member Insurers that are not part of the cluster is unaffected by whatever caused the impacted insurers to fail. If, for example, there was a catastrophic event such as a large earthquake in an urban centre, then all of these estimates would shift lower.

Figure 4 – Bottom line

Up to $1.3 billion	**PACICC could handle a multi-year cluster of failures that require a total required Assessment up to $1.3 billon in any single year**
Between $1.3 billion and $2.25 billion	**A multi-year cluster with a single-year financing obligation in this range would reduce PACICC's capacity to handle any Year 2 failures**
Between $2.25 billion and $3 billion	**PACICC would not be able to generate the liquidity needed to provide Year 1 cashflows to the estates of a cluster of this size**
Greater than $3 billion	**A cluster of failures with a total required Assessment greater than $3 billion introduces systemic risk to PACICC Member Insurers**

Source: PACICC

A closer look at some international clusters

The final section of this paper examines four clusters that have occurred internationally. These are not theoretical events. These were real-world failures that caused losses to policyholders and tested the financial capacity of Insurance Guarantee Funds in their respective jurisdictions. They can be considered examples of the type of failure clusters that would cause PACICC to reach the "orange or red levels" described in Figure 4. All of the clusters described below forced Guarantee Funds in the respective jurisdictions to act, or governments to intervene, in ways that can be instructive, as we evaluate Canada's potential resilience in the face of a failure cluster.

Denmark

Background

The Danish P&C insurance market was disrupted by a cluster of insurer failures beginning in 2016. In Denmark, many licensed insurers had ties to poor-performing foreign insurers and reinsurers. The problems faced by Denmark's insurance system were imported from outside of its borders. In 2016, Gable Insurance, a Liechtenstein-based insurer, failed and left many Danish policyholders without proper protection. Gable's insolvency was the direct consequence of the collapse of Enterprise Insurance, a Gibraltar-based insurer that failed due to consecutive years of underwriting losses.

When Gable failed, the Danish Guarantee Fund – Garantifonden for skadesforsikringsselskaber (translated as the Guarantee Fund for Non-life Insurance Companies) – offered unlimited coverage. It paid full policy limits for all policies – no matter where the risk was. Gable had a large book of automobile insurance business in the United Kingdom (UK). Several of the UK auto policies resulted in multi-million Euro claims. The Gable insolvency caused millions of Euros to flow from the Danish Guarantee Fund and Denmark's insurance industry to other countries in the European Union. To further exacerbate the problem, not all EU jurisdictions had an Insurance Guarantee Fund, so it was not clear whether citizens of Denmark would have received similar treatment if an insurer in another jurisdiction had failed.

The turmoil brought by Gable and its Danish insurance intermediary, Husejernes Forsikring, led to amendments of the *Danish Guarantee Fund for Non-life Insurance Companies Act* and the *Danish Insurance Mediation Ac*t. As a result, the Danish Guarantee Fund now requires that any insurers that write policies in Demark and are domiciled in another EU member state must be a member of the Fund.

In 2018, Demark experienced two more insurer failures: Alpha Insurance and Qudos Insurance, both of which had large exposures elsewhere in Europe. At the time of their failures, Alpha had approximately 1.4 million policyholders, while Qudos had 400,000 policyholders.

The regulator, the Danish Financial Supervisory Authority (Finanstilsynet, DFSA), identified the causes of failure for Alpha and Qudos as: lack of understanding of the risks in the foreign market; overreliance on agents' view of risk and underwriting; insufficient control over agents due to a lack of human resources; and over-optimism of the corporate financial position.[1] These causes all pointed to problems with external governance and organizational structure. And then in 2021…another insurer – Gefion Insurance – also failed.

Table 6 – Cluster failures in Denmark between 2018 and 2021

Insurer	Type	Year established	Year of insolvency
Alpha Insurance A/S	Composite	2005	2018
Qudos Insurance A/S	P&C	2011	2018
Gefion Insurance A/S	P&C	2014	2021

Source: PACICC

Impact on the Danish Guarantee Fund

The obligation to oversee the resolution of this cluster of failures challenged the Danish Guarantee Fund. According to DFSA, the Fund had a deficit of DKK 742 million (–$111 million USD) at the end of 2018, and negative assets of DKK 1,581 million (–$237 million USD) at the end of 2019.[2] To limit the size of the payouts, the Danish Guarantee Fund was forced to eliminate coverage and decided that any claim that occurred after February 19, 2019 would not be processed for Qudos policyholders.[3]

[1] International Monetary Fund (IMF), "Denmark: Financial Sector Assessment Program, Technical Note—Insurance Regulation and Supervision," *IMF Country Report No. 20/252*, August 2020. Available at https://www.elibrary.imf.org/view/journals/002/2020/252/article-A001-en.xml

[2] The 2018 statistic was extracted from DFSA, "Notice of contribution to the Guarantee Fund for non-life insurance companies for 2020," October 2019; available at https://www.skadesgarantifonden.dk/media/1548/meddelelse-om-bidrag-for-2020-003.pdf. The 2019 statistic was extracted from DFSA, "Notice of contribution to the Guarantee Fund for non-life insurance companies for 2021," October 2020; available at https://www.skadesgarantifonden.dk/media/1589/notice-from-the-danish-fsa-regarding-contributions-for-2021-in-danish-only.pdf

[3] http://www.qudosinsurance.dk/featured-content/norway/

The Fund also took measures to raise additional cash from insurers. First, it required new members to contribute a lump-sum of DKK 100,000 ($15,000 USD) to the Fund, plus DKK 50 ($7.5 USD) per policy, starting from 2019.[4] Second, in July 2023, it also required foreign direct Life insurers that write workers' compensation insurance in Denmark to pay contributions.[5]

Finally, it moved to limit its exposure to risks outside of Denmark. In the case of Gefion, the Fund decided that it could only cover "Gefion's insurance contracts in Denmark for risks in Denmark," thereby deliberately choosing not to honour contracts with exposure in other EU member states.[6]

This decision caused legal disputes across the EU. In the case of Alpha Insurance, the Norwegian Non-Life Insurance Guarantee Scheme sued the Danish Guarantee Fund to pay claims related to injured workers in Norway. These workers had coverage under workers' compensation insurance either through Alpha Insurance NUF, Alpha's Norwegian branch, or Alpha itself; the ones with the Norwegian branch – a member of the Norwegian Guarantee Fund – were paid out by the Fund. However, neither Norway nor Denmark wanted to pay for the Norwegian exposure of the parent company. In December 2021, the Østre Landsret, one of Denmark's two High Courts, ruled against the Norwegian Guarantee Scheme.[7] The case was appealed to the Danish Supreme Court but, again, the ruling (on January 5, 2023) was not in favour of Norway. As a result, the Norwegian government had to allocate NOK 90 million ($8.24 million USD) in its 2024 State Budget to pay out the claims.[8]

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[4] DFSA, "Notice of statutory requirement of membership of the Danish Guarantee Fund for non-life insurance undertakings," November 20198, page 2; available at https://www.dfsa.dk/-/media/Lovgivning/Oversat-lovgivning/Compulsory-membership-of-the-Danish-Guarantee-Fund-pdf.pdf.

[5] https://www.skadesgarantifonden.dk/en/news/certain-life-insurance-companies-must-be-members-of-the-danish-guarantee-fund/

[6] https://www.skadesgarantifonden.dk/en/news/gefion-finans-as-under-voluntary-liquidation-formerly-gefion-insurance-as-declared-bankrupt/

[7] "Dom i sak mellom Garantiordningen for skadeforsikring og Garantifonden for skadeforsikringsselskaber," January 14, 2022; available at https://riisa.no/en/dom-i-sak-mellom-garantiordningen-for-skadeforsikring-og-garantifonden-for-skadeforsikringsselskaber/

[8] Regjeringen, "Regjeringen foreslår løsning i Alpha Insurance-saken," *Pressemelding*, October 6, 2023; available at https://www.regjeringen.no/no/aktuelt/regjeringen-foreslar-losning-i-alpha-insurance-saken/id2998334/

Lessons learned

Among the lessons learned by PACICC regarding the Danish Guarantee Fund's experience with this cluster of failures:

a) The Danish Guarantee Fund offered unlimited protection. PACICC's defined benefit limits could prove to be important tools to mitigate the negative impacts from a cluster of failures

b) The cause of a cluster of failures can come from outside of our borders

c) To raise the funds necessary to protect policyholders, the Danish Guarantee Fund used two tools:

   i. Reduced coverage

   ii. Increased funds collected from insurers within its jurisdiction.

Louisiana and Florida, US

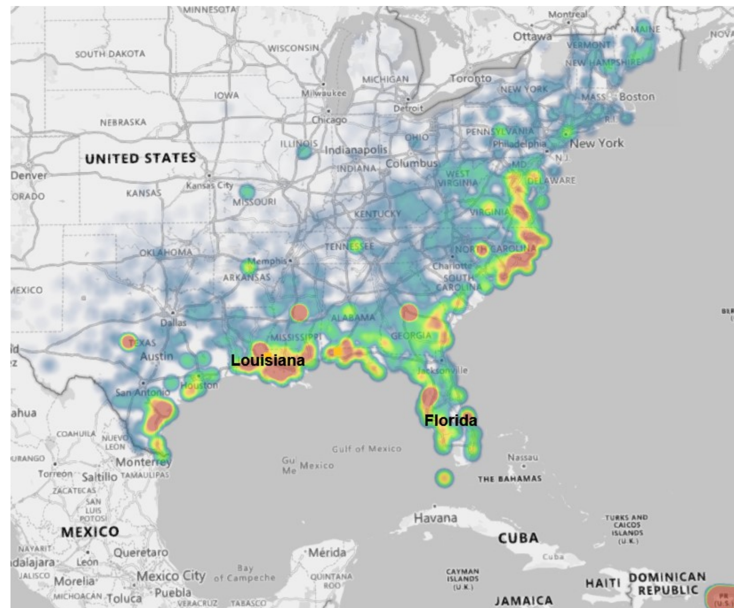
Background

In the past five years, Louisiana and Florida have both experienced clusters of P&C insurance company failures.

Both states are located on the southern US coastline and both are exposed to frequent and major hurricanes, as shown in Figure 5. Many of the homes in the two states are not properly fortified to withstand severe winds, and are not adequately insured to cover related damage.

Extreme weather events are increasing. More often, hurricanes are now achieving Category 3 status or higher.

Figure 5 – US hurricane exposure



Notes: The red colour shows an extremely high level of hurricane risk.

Source: US Federal Emergency Management Agency (FEMA)

Table 7 lists major hurricanes that have hit Florida and Louisiana since 2005.

These severe weather events have had dire consequences for the insurers in these two jurisdictions. There were 11 P&C insurance company insolvencies in Louisiana from July 2021 to September 2022. In Florida, there were nine P&C insurer insolvencies in an overlapping 22-month period.

Table 7 – Major hurricanes affecting the US (2005–2023)

Year	Hurricane	Saffir-Simpson Scale	Affected US States	Estimated damage (USD)
2005	**Katrina**	3	AL, **LA**, MS	$125 billion
2005	**Rita**	3	AR, **FL**, GA MO, MS, **LA**, OK, TX	$18.5 billion
2017	**Irma**	5	AL, **FL**, GA, MI, SC	$50 billion
2019	**Dorian**	5	**FL**, GA, NC, SC, VA	$1.6 billion
2019	**Lorenzo**	5	**LA**, MI	$4.2 billion
2020	**Delta**	4	**LA**, TX	$2.9 billion
2020	**Laura**	4	AR, **FL**, **LA**	$19 billion
2020	**Zeta**	3	AL, AR, **FL**, GA, **LA**, MS, NC, SC, VA	$4.4 billion
2020	**Eta**	4	**FL**	$1.5 billion
2021	**Ida**	4	**LA**	$75 billion
2022	**Ian**	4	**FL**, GA, NC, SC	$112.9 billion
2023	**Idalia**	4	**FL**, GA, NC, SC	$3.6 billion

Notes: LA = Louisiana and FL = Florida

Source: National Oceanic and Atmospheric Administration (NOAA)

Louisiana

Between 1980 and 2024, 63 separate tropical cyclone and severe storm events hit Louisiana. Each caused at least $1 billion in damage, according to the National Centers for Environmental Information.[9] Financial advisory firm *SmartAsset* notes that Louisiana ranks first in the US for greatest financial risk due to extreme weather events (including hurricanes and riverine and coastal flooding).[10] The state's smaller

[9] National Centers for Environmental Information (NCEI), "Louisiana Summary," accessed on August 5, 2024; available at https://www.ncei.noaa.gov/access/billions/state-summary/LA

population and economy – relative to neighbouring states like Texas and Florida – amplifies the relative severity of disaster and recovery costs.

Table 8 – Recent P&C insurer insolvencies in Louisiana (2021–2022)

Insurer	Failure date	Home state	Founded	Policies	Market share %
1. Gulfstream Select Insurance Company (Affiliate)	22/07/2021	LA	2017	Affiliate	0.5
2. Gulfstream Property & Casualty Insurance Company	28/07/2021	FL	2004	8,897	0.2
3. *State National Fire Insurance Company	12/11/2021	LA	2011	9,000	0.1
4. *Access Home Insurance Company	13/01/2022	LA	2011	19,967	0.9
5. *Lighthouse Excalibur Insurance Company	30/03/2022	LA	2019	Affiliate	2.7
6. *Lighthouse Property Insurance Company	28/05/2022	LA	2008	30,000	1.0
7. *Southern Fidelity Insurance Company	15/06/2022	FL	2005	42,357	2.1
8. *Americas Insurance Company	23/06/2022	LA	1991	24,000	1.3
9. Weston Property & Casualty Insurance Company	08/08/2022	FL	2011	10,370	0.4
10. FedNat Insurance Company	27/09/2022	FL	1992	12,914	2.3
11. Maison Insurance Company	27/09/2022	LA	2012	26,925	1.7

Notes: *Insurance company insolvencies resulting from Hurricane Ida

Source: Louisiana Department of Insurance

[10] Jaclyn DeJohn, "States at Greatest Risk for Climate Damage - 2024 Study," *SmartAsset*, April 3, 2024; available at https://smartasset.com/data-studies/environmental-damages-2024.

According to the Louisiana Department of Insurance (LDI), which monitors the financial condition of insurance companies, there were 11 P&C insurance company insolvencies in Louisiana between July 2021 and September 2022, shown below in Table 8.[11] In October of 2022, the Louisiana Legislative Auditor (LLA) released a report on the financial condition of the residential property insurance market. LLA noted that six of the failures, marked with an asterisk in Table 8, were the direct result of Hurricane Ida.[12]

Impact on the Louisiana Insurance Guaranty Association (LIGA)

The 11 insolvencies in this cluster affected 184,430 policies, accounting for 13.3% of the residential property insurance market. Factoring in other voluntary market exits, the number of affected policyholders grew to 204,987 (16.7% of market).[13]

The market disruption had a significant impact on the Louisiana Insurance Guaranty Association (LIGA). LIGA was created in 1970 as a private, non-profit entity to provide a safety net for P&C insurance policyholders impacted by an insurer insolvency. It pays up to $500,000 per eligible claim. LIGA has the power to assess insurance companies (ex post, as in 48 other states and Canada) up to one percent of total premiums written in the previous calendar year (PACICC's limit is slightly greater at 1.5%). State law allows insurance companies to recoup those Assessments through a premium tax offset (up to 10% annually, until the bill is paid), or by increasing the rates charged to policyholders.

The magnitude of claims and premium refund obligations that LIGA assumed from the failed insurers strained its resources. Over the preceding decade (2010–2020), LIGA had paid $81.6 million to policyholders for all P&C insolvencies. As a result of Hurricanes Delta, Laura and Zeta in 2020, LIGA's claim costs in 2021 alone were $72.6 million. The following year, Hurricane Ida pushed the figure to $268.1 million for just the first eight months, with projected outstanding payments of $731.3 million.[14]

Reliance solely on LIGA's annual Assessment capacity ($100 million per year) would require Louisiana policyholders to wait years to be compensated for their losses. Instead, to reduce delays, LIGA sought other means to address an urgent need for

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[11] Louisiana Legislative Auditor, "Financial Condition of the Residential Property Insurance Market," Page 1, October 13, 2022.

[12] Ibid. Page D.1.

[13] Op. Cit., Page D.1.

[14] Ibid., Page 7.

funds to pay policyholders. In July of 2022, it issued a $458 million bond (with an A1 rating from Moody's) to fund the shortfall. This was the first time that LIGA used a bond issue to pay claims for residential property insurance.[15] It expects to pay between $121.6 million and $284.6 million in interest over a 12-year period, placing the value of the bond issue at between $721.6 million and $884.6 million. This was a timely solution to a pressing problem. The situation was aggravated by Louisiana's relatively lower Assessment capacity vis-à-vis other states (41 other states allow annual Assessments above one percent) and higher claims limit ($500,000 per policy vs. 35 other states with a claims limit of $300,000).

Other impacts – the Louisiana Citizens Property Insurance Company (Citizens)

The rash of insolvencies also had a significant impact on the Louisiana Citizens Property Insurance Company (Citizens), the state's insurer of last resort. Citizens was created in 2003 as a non-profit, quasi-public entity to provide residential and commercial property insurance for individuals unable to obtain insurance through the private market. It is funded through the premiums it collects from the policies that it writes. It prices policies at least 10% higher than the highest rate charged by private insurers, or at an actuarially justified rate plus at least 10% (whichever is higher). The goal of Citizens is to channel policies back to the private insurance market. Citizens can transfer policies to private insurers in order to reduce its exposure.

In January of 2021, Citizens had 35,670 policies totalling $6.7 billion. By August of 2022, it had 112,035 policies totaling some $33.3 billion – a 214% increase in the number of policies and a 397% increase in their value, in just 19 months.[16]

If Citizens experiences a deficit that exhausts its reinsurance, cash and investments, it can assess insurance companies for 10% of their total written premium during the previous year. The insurance companies then pass the Assessment costs on to their policyholders. In addition, Citizens can also issue bonds and assess Louisiana policyholders to pay for them. As a result of claims related to Hurricanes Katrina and Rita in 2005, Citizens assessed insurance companies $217 million and issued $978 million in bonds. To pay for the cost of these bonds, Citizens assessed all Louisiana policyholders in 2007. They will continue to pay this Assessment until June of 2026.

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[15] Ibid. Page 8.

[16] Ibid. Page 11.

Other impacts – Corrective measures taken by government in Louisiana

As a result of the cluster of P&C insurer failures in the state, several corrective measures were undertaken by Louisiana Department of Insurance (LDI) to prevent future failures, including:

- **Enhanced Reinsurance Monitoring –** LDI conducts reviews of Louisiana insurers' financial condition on a quarterly basis. At least once every five years, it conducts thorough financial examinations of all insurance companies doing business in the state. Given that six of the 11 failed companies became insolvent due to a lack of adequate reinsurance, LDI expanded the type of information that it reviews as part of its financial monitoring activities, including a more detailed, stand-alone actuarial review on the type of modelling used by insurance companies to determine the amount of reinsurance needed and the total insured value of policies.[17]
- **Reserves –** To address concerns about insurance companies lacking adequate capital, in 2022, LDI increased the amount of paid-in capital, minimum surplus, and/or operating surplus that insurance companies are required to maintain in order to provide residential property insurance. Existing insurance companies must have $5 million of reserves on/after December 31, 2026, and $10 million on/after December 31, 2031. New residential property insurers must have $10 million in reserves.[18]
- **Incentivizing Insurers –** LDI established the *Insure Louisiana Incentive Program* (ILIP) in 2022 to attract additional P&C insurance companies to the state, and to lower the number of policies written by Citizens (i.e. depopulation, in order to reduce its exposure). LDI allocates grants between $2 million and $10 million to eligible insurance companies that match newly allocated capital funds, dollar-for-dollar. The insurers must write residential property insurance with a ratio of at least two dollars of premium for every dollar of newly allocated capital and matching capital fund grant.

  If an insurer allocates $2 million of its capital, it could receive a LDI grant for $2 million. The insurer would then be required to write at least $8 million worth of residential property insurance. Incentivizing private insurers enables current Citizens policyholders to obtain more affordable insurance coverage in the private market, thereby reducing the risk that policyholders across the state could be assessed by Citizens.[19]

[17] Op. Cit., Page 2.
[18] Ibid. Page 17.
[19] Ibid., Page 17.

Florida

Table 9 – Recent P&C insurer insolvencies in Florida (2021–2023)

Insurer	Failure date	Home state	Founded	Market share %
1. American Capital Assurance Corporation	14/4/2021	FL	2006	0.6
2. Gulfstream Property & Casualty Insurance Company	28/07/2021	FL	2004	1.1
3. *St. John's Insurance Company	25/02/2022	FL	2003	2.7
4. Avatar Property & Casualty Insurance Company	14/03/2022	FL	2008	1.0
5. Lighthouse Property Insurance Corporation	28/04/2022	FL	2008	0.6
6. Southern Fidelity Insurance Company	15/06/2022	FL	2005	0.9
7. Weston Property & Casualty Insurance Company	08/08/2022	FL	2011	0.6
8. *FedNat Insurance Company	27/09/2022	FL	1992	5.0
9. *United Property & Casualty Insurance Company	27/02/2023	FL	1999	3.3**

Notes: *Top-10 Florida P&C insurer

** United Property & Casualty data for 2017 not publicly available, estimated using year-end 2016 data

Source: FIGA, Florida Office of Insurance Regulation (FLOIR) and milliman.com

Between 1980 and 2024, there were 62 separate tropical cyclone and severe storm events that hit Florida. Each caused at least $1 billion dollars in damage, according to the National Centers for Environmental Information.[20] Hurricanes Irma (2017), Ida (2021) and Ian (2022) were the three costliest US storms over the past decade. Irma and Ian made landfall in southwestern Florida, spanning five years of extreme turbulence in the Florida property insurance market.[21] At the best of times, the state presents a challenging environment for property insurance. According to the Insurance Information Institute, the cost of homeowner's insurance in Florida has

[20] National Centers for Environmental Information, https://www.ncei.noaa.gov/access/billions/state-summary/FL

[21] Koch, Aaron and Blake, David, "The Florida property insurance market ran aground. Can the ship be righted?," July 19, 2023; available at https://www.milliman.com/en/insight/florida-property-insurance-market-ran-aground

doubled over the last three years, now sitting at three times the national average. The average cost of home insurance in Florida in 2023 was about $6,000, the highest in terms of average premium in the US.

From 2017 to 2020, only one insurer with greater than a 0.5% property market share – Florida Specialty Insurance Company – became insolvent. However, between 2021 and 2023, nine more insurers became insolvent – including three of the 10 largest property insurers in Florida (shown with an asterisk in Table 9).[22]

Impact on the Florida Insurance Guaranty Association (FIGA)

Florida has its own non-profit agency created by the state to handle claims when insurers become insolvent – the Florida Insurance Guaranty Association (FIGA). FIGA has the authority to levy a 2% regular Assessment and 2% emergency Assessment annually (compared to PACICC's 1.5%), resulting in an annual Assessment capacity of approximately $650 million. FIGA has levied 13 regular Assessments and six emergency Assessments since 1992. In the event of hurricane-related insolvencies that exceed its Assessment capacity, or if it needs to spread Assessments over a longer time period, FIGA has the power to issue bonds through the Florida Insurance Assistance Interlocal Agency (FIAIA) to obtain funds to pay covered claims.

Historically, FIGA used investment income and the assets of liquidated companies to cover payouts. However, FIGA was challenged financially by the collective damage caused by Hurricane Ida and Hurricane Ian. The resulting insurer insolvencies, affecting more than 440,000 Florida homeowner policies, left FIGA to cover $1.6 billion in claims.

The deterioration of FIGA's financial status, especially following the failure of United Property & Casualty in 2023, motivated FIGA to reconsider a previous source of funding: bond issuance. The last time that FIGA issued a municipal bond had been in 1993, after Hurricane Andrew caused an estimated $27 billion in damages. In 2023, for the first time in more than 30 years, FIGA issued tax-exempt fixed-rate bonds worth almost $580 million to help to fund failed insurer claims. The Series 2023A-1 bonds (rated A by S&P Global Ratings) mature between 2024 and 2028, yielding between 3.25% and 3.45% and paying interest at 5%. The Series 2023A-2 bonds (rated A2 by Moody's Investors Service) mature on September 1, 2032, and pay interest at a variable rate determined weekly by the Bank of America in its role as remarketing agent.[23] The bonds were backed by a 1% emergency Assessment

[22] Ibid.

levied by the Florida Office of Insurance Regulation (FLOIR), expected to generate $286 million annually, and continuing until the bonds are paid in full.

Other impacts – Florida Citizens Property Insurance Corporation (Florida Citizens)

Florida Citizens Property Insurance Corporation (Florida Citizens) was established in August 2002 as a not-for-profit, tax-exempt, government entity to provide property insurance to eligible Florida property owners unable to find insurance coverage in the private market. Florida Citizens is funded by policyholder premiums and may levy Assessments (up to 45% of premiums) on most policyholders if it experiences a deficit resulting from a devastating storm or series of storms.

The size of Florida Citizens fluctuates with the severity of hurricane risk. Owing to Hurricanes Katrina, Rita and Wilma in the mid-2000s, Florida Citizens' policies increased from around 800,000 to almost 1.5 million. During the relative calm between 2005 and 2017, private insurers assumed numerous policies from Florida Citizens causing its policy count to decrease to 500,000. However, the rash of insolvencies and an exodus of insurers from the Florida property insurance market led to explosive growth at the state-backed Florida Citizens. At the end of 2022, the number of policies underwritten by Florida Citizens ballooned to 1.3 million, and peaked at 1.412 million in fall 2023.[24] As a result of Hurricanes Ida and Ian, Florida Citizens' policy count increased to 1.23 million in 2023, making it the largest homeowner insurer in Florida.

In the absence of corrective measures, the threat of Florida Citizens not having enough money to pay claims could expose other policyholders to additional Assessments to fund any shortfall. In the meantime, property insurance premiums were increasing while coverage was being reduced. Insurers faced significant financial hardship due to negative underwriting results, adverse loss reserve development and "social inflation" factors such as excessive litigation and door-to-door solicitation.[26]

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[23] "Florida Insurance Agency Issues Almost $600 Mln in Bonds," Munichain News, July 10, 2023; available at https://www.munichain.com/news/florida-insurance-agency-issues-almost-600-mln-in-bonds

[24] Sellers, Matthew. "Progressive issues non-renewal notices in Florida," Insurance Business, March 27, 2024; available at https://www.insurancebusinessmag.com/us/news/property/progressive-issues-nonrenewal-notices-in-florida-482967.aspx

[25] Koch, Aaron and Blake, David, "The Florida property insurance market ran aground. Can the ship be righted?," *Milliman*, July 19, 2023, https://www.milliman.com/en/insight/florida-property-insurance-market-ran-aground

[26] Ibid., Page 1

Other impacts – Corrective measures taken by government in Florida

Recognizing that the frequency and severity of litigated claims was causing havoc in Florida's property insurance market, legislation action was taken.

In 2022, Senate Bill 2-A was enacted to ensure that policyholders had access to affordable private market property insurance, while also addressing flaws in the system. This included:

1. **Reinsurance –** The Florida Optional Reinsurance Assistance (FORA) Program was established for the 2023 hurricane season, enabling insurers to purchase reinsurance at "reasonable" rates – rates varied by tiers, ranging from 50% to 65 %of market rates.
2. **Excessive Litigation –** One-way attorney fees for property insurance were eliminated, with both parties now obtaining fees through the offer of judgment statute.
3. **Assignment of Claims –** The assignment of claims (in whole or in part) of any post-loss insurance benefit under any residential property insurance policy or under any commercial property insurance policy issued on or after January 1, 2023, was eliminated.
4. **Insurance Regulation –** FLOIR was authorized to require market conduct examinations of authorized insurers after a hurricane, under certain conditions relating to property insurance claims.
5. **Appraisals –** FLOIR is given discretionary power to suspend or revoke an insurer's authorization or issue fines if the insurer compels insureds to participate in an appraisal in order to secure full payment or settlement of a property insurance claim.
6. **Depopulating Florida Citizens –** The eligibility threshold for Florida Citizens personal lines was increased for renewals on or after April 1, 2023. Policyholders would no longer be eligible for Florida Citizens coverage at renewal if they received an offer of coverage from a private insurer that was not more than 20% greater than the Florida Citizens renewal premium.
7. **Communications –** Insurers were required to communicate more promptly with insureds.
8. **Claim Filing Deadline –** Policyholders' claim filing deadline was reduced to one year for new or reopened claims (down from two years), and 18 months for supplemental claims (down from three years).

9. **Prompt Payment –** The time for insurers to pay or deny claims was reduced from 90 to 60 days. [28]

Lessons learned

Lessons learned for PACICC from the cluster of failures in Louisiana and Florida include:

a) In a natural catastrophe-driven cluster of failures, the Guarantee Fund cannot rely on access to the assets of the failed insurer. In these catastrophe-driven failures, there were no assets remaining and the Guarantee Fund was required to fund ALL eligible claims.

b) Florida and Louisiana were able to convince investors in the US bond market that their future Assessment capacity provided adequate collateral to borrow large amounts of money.

c) Insurers operating in Florida and Louisiana were not required to recognize the repayment of these bonds in their solvency tests. Similar capital treatment by Canadian supervisory authorities would reduce systemic risk in Canada's P&C insurance industry.

Thailand

Background

Between 2020 and 2022, a total of 16 non-Life insurers in Thailand offered COVID-19-related insurance. These insurers were motivated by the small number of early reported cases – specific to the Alpha variation of the SARS-CoV-2 virus – that remained as low as 6,884 at the end of 2020. Meanwhile, Thailand was proudly ranked first in the Global COVID-19 Recovery Index, creating a false sense of security that such risk was insurable and under control.[30] By the end of 2020, the revenue from COVID-19 insurance was significant; the total premium amounted to THB 4.2 billion ($126 million USD), whereas the claim payments were only THB 70 million ($2 million USD).

[27] Senate Bill 2-A (Property Insurance, The Florida Senate, https://www.flsenate.gov/Committees/BillSummaries/2022A/html/2878

[28] Tangkivanich, Poum, 2021. "The paradox of Thailand's success in controlling COVID-19." Asian Economic Papers, 20(1), 175-199..

Table 11 – Performance by non-Life insurers in Thailand – Health Insurance

(In 1,000 THB)

	Item	2015	2016	2017	2018	2019	2020	2021	2022
1	Number of Policies	463,138	468,502	741,711	916,796	1,102,718	7,941,379	10,552,327	2,384,528
2	Direct Premium	7,563,113	7,753,416	8,354,298	9,399,712	11,003,384	15,631,974	18,737,828	15,810,831
3	Average Premium per Policy [=2/1]	16.33	16.55	11.26	10.25	9.91	1.97	1.78	6.63
4	Net Written Premium	7,938,830	7,657,015	8,263,088	9,037,782	10,720,880	14,211,608	16,720,677	13,381,233
5	Net Earned Premium	8,520,527	7,657,524	7,990,441	8,849,236	10,305,663	13,397,094	15,436,071	14,675,736
6	Net Loss Incurred	4,946,839	5,007,018	4,787,353	5,660,991	6,226,268	6,163,545	28,109,003	76,825,094
7	Net Loss Incurred, adjusted*	4,946,760	5,323,109	5,025,799	5,999,608	6,574,032	6,555,668	28,503,620	77,317,268
8	Net Loss Ratio [=6/5]	58.06%	65.39%	59.91%	63.97%	60.42%	46.01%	182.10%	532.48%
9	Loss Ratio, adjusted	58.06%	69.51%	62.90%	67.80%	62.74%	48.93%	184.66%	526.84%
10	Expense Ratio including Commission	42.26%	41.91%	42.59%	43.45%	43.12%	35.97%	34.50%	35.78%
11	Combined Ratio [=8+10]	100.31%	107.29%	102.51%	107.42%	103.54%	81.98%	216.60%	559.27%
12	Combined Ratio, adjusted	100.31%	111.42%	105.49%	111.25%	105.75%	84.90%	219.16%	562.62%
13	Net Retention Ratio	75.96%	75.58%	78.66%	79.40%	85.54%	83.65%	83.51%	80.39%

Notes: *"Net Loss Incurred, adjusted" denotes Net Loss Incurred + Unexpired Risk Reserve (URR) and Long-Term Technical Reserve; and "Loss Ratio, adjusted" equals "Net Loss Incurred, adjusted" divided by "Net Earned Premium." The numbers for 2022 are interim and may be subject to adjustment. Direct Premium, Net Written Premium, Net Earned Premium, Net Losses Incurred, and Net Loss Incurred are in BHT 1,000.

Source: Thai General Insurance Association (TGIA 2021, 2022)[31]

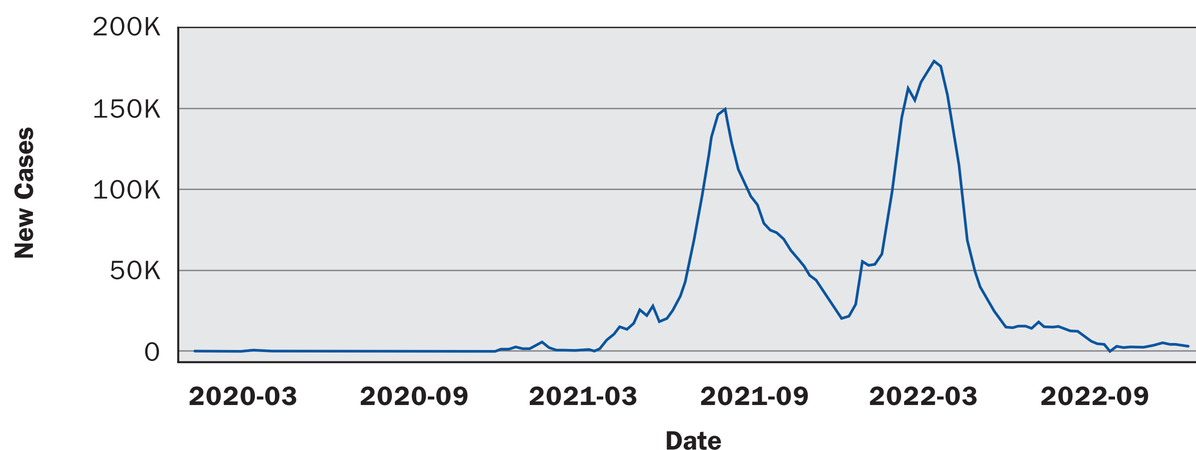
[29] TGIA, "General Insurance Premium Forecast: Direct Premium Report as of 2022Q2 and Full Year Forecast of 2022–2023," *Non-life Insurance Statistics*, September 2022. TGIA, "Key Industry Performance Indicators (All Class) for General Insurance: 2017Q1—2022Q4", *Non-life Insurance Statistics* (Report Code BA 1.1.1), February 2023.

[30] Jitanan, M., Chirasatienpon, T., Tiamjan, R., Amnatsatsue, K., Nguanjairak, R., Miranda, A.V., Lin, X., Gyeltshen, D., Vicerra, P.M.M., Kouwenhoven, M.B.N., 2022. Can Thailand achieve COVID-19 herd immunity? *Public Health Challenges* 1, 1–8.

The early success of COVID-19-related insurance inflated the confidence of P&C insurers, despite the fact that their risk modelling was based on very limited historical data. A key feature of these policies was "Jer Jai Jop," literally translated as "found, paid, and expired," meaning that if the insured was *found* to have COVID-19, a lump-sum claim would be *paid* immediately, and the policy would *expire* after that. Such policies, however, proved to be seriously underpriced: While the typical premium was as low as THB 500 ($15 USD), the lump-sum payment could be as high as THB 100,000 ($3,000 USD), 200 times the premium. As the row of "Average Premium per Policy" in Table 11 shows, the mean cost of each health insurance policy decreased from THB 9,910 ($300 USD) to THB 1,970 ($59 USD) in 2020 and THB 1,780 ($54 USD) in 2021.

However, as Figure 6 shows, the high infection rate of the Delta and Omicron variants of COVID-19 in the course of 2021 severely disrupted the calculations of all COVID-19 insurance providers. Between 2021Q3 and 2022Q1, new cases in some weeks reached as high as 150,000, and a flood of claims began to generate huge underwriting losses. Worse still, increases in the number of infected persons did not then decrease again, as "herd immunity" proved impossible to achieve in the short run due to inadequate vaccination (Jitanan, 2022).

Figure 6 – Weekly new COVID-19 cases in Thailand (January 2020–December 2022)



Notes: Calculated from the data provided by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University.

Source: CSSE and PACICC

As a result of surging claims beginning in the second half of 2021, four Thai insurers were rendered insolvent and lost their licences. These insurers were: Asia Insurance 1950 PCL, which failed on October 5, 2021; The One Insurance PCL, which failed on December 13, 2021; and two subsidiaries of the Thai Group Holdings (TGH), Southeast Insurance and Thai Insurance, both of which failed on April 1, 2022. A summary of these insurers is presented in Table 12.

Table 12 – Cluster failures in Thailand due to the COVID-19 Pandemic

Failed Insurer	Licence revoked on	Notes
Asia Insurance 1950 PCL	Oct 15, 2021	The audit reported an equity of THB -1,543.06 million ($46.3 million USD)
The One Insurance PCL (formerly Assets Insurance)	Dec 13, 2021	By March 2022, COVID-19-related premiums were THB 11 billion ($330 million USD), but payment claims totaled THB 60 billion ($1.8 billion USD)
Southeast Insurance PCL	Apr 1, 2022	Existing policies transferred to Indara Insurance, a firm under its parent, TGH; Owed THB 13 billion ($390 million USD) in claims payments
Thai Insurance PCL	Apr 1, 2022	Owed THB 4.6 billion ($140 million USD)in claims payments

Notes: PCL = Public Company Limited

Source: Bangkok Post, Insurance Business, and Milliman

Impact on the Thai Guarantee Fund

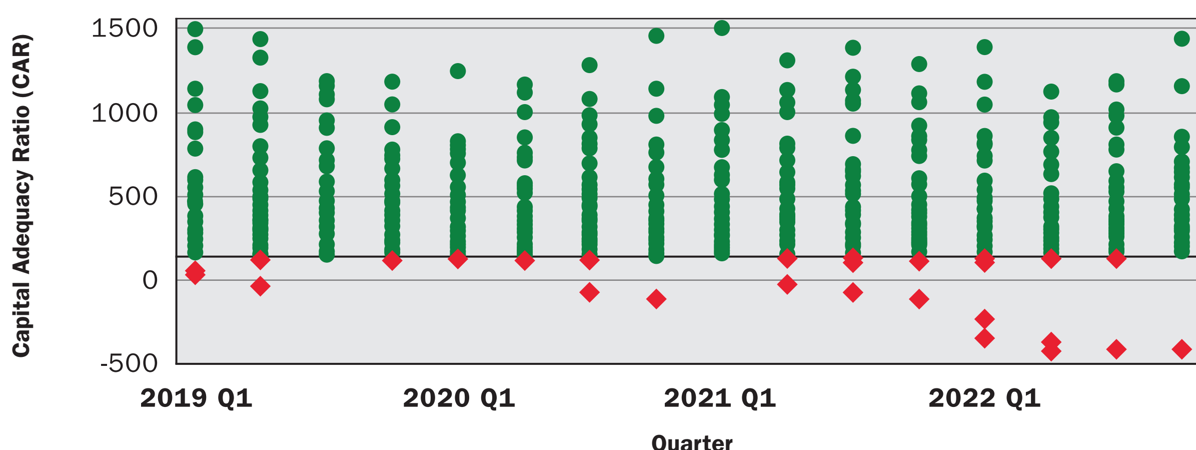
Unsurprisingly, the provision of COVID-19-related insurance caused solvency problems, not only for the failed insurers, but for the P&C insurance sector as a whole. After 2021 Q1, more companies recorded a CAR below 140%, the regulatory threshold. Figure 7 shows the Capital Adequacy Ratios (CARs) of all of the surviving P&C insurers from 2019 Q1 to 2022 Q4.

Following the failures of the four insurers, the Thai General Insurance Fund (TGIF) assumed the responsibility to pay for the claims. In January 2023, it declared that the

four insurer failures resulted in claims from more than 700,000 policyholders in 2022. The dollar amount exceeded THB 60.0 billion ($1.8 billion USD) (BMI, 2024, p. 23).[31]

The Thai GIF also needed to repay THB 8.51 billion ($255 million USD) to 145,000 other creditors of the four failed insurers, which translated to a monthly obligation of between THB 350 million to 400 million ($10.5 to $12 million USD).[32]

Figure 7 – Capital Adequacy Ratios (CARs) of non-Life insurers in Thailand (2019 Q1–2022 Q4)



Notes: The black horizontal line marks the 140% regulatory threshold for CAR. The green circles show insurers that successfully complied with the regulatory threshold, while the red diamonds present insurers that failed to do so.

Source: TGIA and PACICC

The Thai GIF simply did not have the financial resources to pay, and sought extra funding or ways to reduce the payout. The following measures were undertaken:

1. The levy on insurance companies was raised from 0.25% to 0.50% of insurance premiums
2. The Thai GIF submitted a plan to the Public Debt Management Office, aiming to borrow THB 3 billion ($90 million USD) from the government
3. The Thai GIF proposed to offer immediate payout to policyholders at a discount, i.e. at 60%.[33]

[31] BMI, Thailand Insurance Report (Includes five-year forecasts to 2027), 2024Q1 page 23.

[32] Wichit Chantanusornsiri, "Insurance fund offers quick payout," Bangkok Post, May 3, 2024; available at https://www.bangkokpost.com/business/general/2786239/insurance-fund-offers-quick-payout

[33] Ibid.

Thailand’s failed insurers were not the only insurers offering COVID-19-related insurance. This type of product was also sold in Taiwan and China.

Lessons learned

Lessons learned from the cluster of failures in Thailand include:

a) Insured losses that created systemic risk required the retroactive creation of a government backstop for the Guarantee Fund, in order to maintain confidence in the country’s financial services industry.

b) New product offerings have significant solvency risk, even for otherwise stable, experienced insurers.

c) The Thai GIF offered a pro-rata settlement solution to policyholders – 60% of their policy’s value.

Key takeaways

1. In compiling the Global Failed Insurer Catalogue, PACICC defined a cluster as more than three insurers failing over a three-year period in a single jurisdiction. PACICC found 43 clusters in 27 jurisdictions since 2000. These clusters account for approximately 50% of global P&C failures since 2000.
2. Some 32 of these clusters involved primarily P&C insurers. There were just two clusters of Life company failures for this period (Japan, 2000–2001 and South Korea, 2001–2004).
3. This international pattern matches Canada's own experience with insurance company failures. There were 35 P&C and Life insurance companies that failed in Canada, in three clusters (of slightly longer duration), between 1981 and 2003.
4. PACICC can manage a cluster of failures with a total required Assessment of up to $1.3 billion per year.
5. PACICC could manage a cluster of failures with a combined total required Assessment of between $1.3 billion and $2.25 billion in one year. It cannot manage a multi-year cluster of this size.
6. PACICC would not be able to cover all required Year 1 cashflows for a cluster of failures with a total required Assessment of between $2.25 billion and $3 billion. There would be a shortfall that would require PACICC to borrow funds.
7. Any cluster of failures resulting in a total required Assessment of greater than $3 billion would cause systemic solvency issues across PACICC's membership.
8. The evidence in Denmark, the United States and Thailand clearly demonstrates that a large cluster of insurance company failures can (and has) overwhelmed the financial resources of an Insurance Guarantee Fund in other developed economies.
9. PACICC can learn from the experiences in these jurisdictions. In particular, Insurance Guaranty Funds in Louisiana and Florida used their authority to assess insurers as security in order to borrow from private investors in bond markets. This avoided the need to assess insurers amounts which would have caused systemic solvency problems.
10. The Thailand experience also illustrates the strong argument in favour of establishing government backstop mechanisms in advance of any systemic crisis.

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