Options for Preparedness at PACICC

Revised

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Executive Summary

Property and casualty (P&C) insurance insolvencies are rare in Canada, but they do occur. Notwithstanding its history of success in protecting P&C insurance policyholders and claimants, the industry and PACICC are facing new responsibilities and challenges. Consolidation and growth in the industry has eroded PACICC's capacity to respond to the insolvency of a mid-sized or moderately large insurer. Despite recent improvements in the industry's operating environment challenges remain. There are currently, more insurance customers with insurers with vulnerable financial strength ratings, weak regulatory capital scores and staged status with OSFI than at any time since PACICC was established.

In 2003, the Board and membership of PACICC decided that the corporation needed to conduct a comprehensive review of its operations to ensure continued future success. It was recognized that a key aspect of the review would be to examine PACICC's financial capacity to handle insurer insolvencies in the future – especially if these involved larger, or more frequent failures than those experienced during the corporation's 15-year history. It is recognized that PACICC could deal with an insolvency of virtually any size through continuous the assessment of the industry and that under accounting rules, a member's share of the full liability of an insolvency must be booked by an insurer when it becomes known. Financial preparedness mechanisms have no impact on the total liability or the overall amount paid for claims, but could influence the timing and flexibility of PACICC to meet its obligations on behalf of members.

Given the reason for PACICC's existence, and the foundation of its credibility, is to be ready to respond effectively to an insolvency of a member P&C insurance company, the consequences of delayed payments to legitimate claimants would be to increase reputational risk for members by potentially subjecting the industry and member companies to negative media and government attention. In addition, since member companies would be required to book the full future liability, which would flow through the MCT/BAAT, there are associated capital costs to delay.

This paper documents the following key findings relating to PACICC's operational and financial preparedness:

Operational preparedness

- 1. PACICC should develop standard operating procedures and contingency plans for handling the failure of a mid-size insurer.
- 2. PACICC should amend its current regional general assessment practices to be more equitable and adopt an own-province assessment method based on premiums written.

Short-term financial preparedness

3. PACICC should improve its access and timing to financial resources through either the liquidity fund or a member line of credit.

Long-term financial preparedness

- 4. PACICC should bring its coverage of large commercial risks into line with international standards and best practices and, through consultation with member companies, identify the best mechanism to ensure that financial resources are utilized appropriately to protect individual policyholders and small businesses.
- 5. PACICC should increase its long-term financial preparedness through a higher maximum allowable assessment threshold.
- 6. PACICC should negotiate clear pre-conditions and model provisions for loan agreements with liquidators.

Background

PACICC was established in 1988 to provide policyholders with a reasonable level of recovery for unpaid claims in the event that an insurance company became insolvent and could not meet its financial obligations. Since then, PACICC has done an excellent job of serving the needs of policyholders with unpaid claims, and more recently those entitled to a refund of unearned premiums. Since 1988, PACICC has participated in the winding-up of 12 insolvent P&C insurers doing business in Canada.



Comparison of International Insolvency Rates

However, new and higher levels of risk have emerged in the Canadian economy and within the financial industry since 1988. Among international jurisdictions, the Canadian risk of insolvency is moderate but increasing as the P&C insurance industry has experienced as many insolvencies in the last five years as it had in the previous decade. PACICC requires the capacity to respond to the possibility of larger and/or more frequent P&C insurance company failures than has historically occurred.

PACICC's challenge in preparing to respond to insolvency is to adopt those aspects of current best practices for preparedness that apply to its unique environment, while ensuring that the needs and interests of its main stakeholder groups are appropriately represented in a fair and balanced manner. To facilitate this, PACICC initiated a consultation process with member companies during 2003 and continuing in 2004 regarding the development of a strong and effective capacity to respond to future P&C insurance company insolvencies.

The consultation process resulted in broad agreement among member companies that PACICC should focus on organizational change involving three key areas:

- 1. Proactive operations
- 2. Effective governance
- 3 Relevant research

Source: PACICC, with data from OECD and European Commission

On November 3, 2004, PACICC's Board of Directors met to review PACICC's current financial and operating capacity. The Board noted that the reason for PACICC's existence, and the foundation of its credibility, is to be ready to respond effectively to an insolvency of a member P&C insurance company. Ideally, this means that the organization should have a proactive operational capability, based on three essential components:

- an operations plan documenting in detail the procedures that would be followed in the event of a company failure
- a capable, professional staff of adequate size
- sufficient financial capacity to respond promptly to demands for claims payments.

While noting that PACICC could deal with an insolvency of virtually any size through continuous the assessment of the industry, the Board determined that it would be prudent for the Corporation to review its normal operating capacity and explore whether PACICC has the ability, both financially and operationally, to operate at a level that:

- is consistent with the reasonable risk of insurer insolvency and the fulfillment of PACICC's mission which is to compensate eligible policyholders from undue financial loss in the event that a member insurer becomes insolvent, and
- balances adequate preparedness with minimizing the cost to member insurers.

Current capacity

The Organization for Economic Co-operation and Development (OECD) notes that:

"The primary objective of policyholder protection funds is to protect the interests of policyholders, especially individual or non-professional policyholders in the event of bankruptcy of an insurance company. The funds are expected to serve as the final safety net for policyholders, when in spite of all possible supervisory measures, bankruptcy occurs."

To honour its policyholder protection obligations, PACICC requires the capacity, both operational and financial, to respond to the failure of an insurer of a size that could reasonably be expected to become insolvent.

Risk Environment

Property and casualty insurance company insolvencies are rare in Canada, but they do occur. The rate of property and casualty insurance company failure has nearly tripled in recent years. The industry has experienced as many insolvencies since 2000 as it did in the entire decade of 1990 to 1999. Between 1990 and 1999, the industry experienced an average of 0.6 insolvencies per year. Since 2000, the insolvency rate has tripled to 1.7 per year. For the P&C insurance industry as a whole, nearly half of the insolvencies that have occurred since PACICC was founded have taken place since 1999. While the current environment is improving, challenges persist.

This elevated level of risk in the P&C insurance industry was clearly recognized by the Office of the Superintendent of Financial Institutions (OSFI) in its most recent Annual Report, released in October 2004. In particular, the report noted that prospects for the auto insurance sector in a number of provincial jurisdictions remain uncertain due to provincial regulatory initiatives in product design and pricing.

As a result, OSFI continues to devote considerable supervisory resources to the P&C industry, as some companies are still struggling to achieve profitability in certain submarkets. While the number of P&C companies rated as stage 2 decreased over the previous year, the total number of staged institutions actually increased in 2003-2004 by approximately 10 percent, mainly as a result of a continued increase in the number of problem P&C companies. Overall, the P&C industry had the greatest proportion of above average risk rated institutions than any other financial service industry.

Canada's P&C insurance industry has experienced constantly changing market conditions over the past several years and the insurance industry is becoming increasingly global in scope. While reinsurance has long been global, the wave of consolidation and the formation of financial conglomerates in the 1990s increased the number of large financial and insurance institutions. In general these insurance/financial groups are better diversified and possess strong corporate governance structures that would reduce the risk of financial distress leading to insolvency. However, where such firms do experience financial distress resulting in insolvency, the impact and challenges to the guarantee fund system are greater.

This risk of such international and cross-pillar insolvencies is highlighted by the failure of insurers such as the Barings (1995), Reliance Insurance Company (2000), the HIH Insurance Group (2001) and Home Insurance Company (2003). To date the Canadian exposure to international and cross-pillar insolvency has been limited, although two of the last three wind-ups of Canadian insurance companies have been precipitated by the failure of parent companies in other jurisdictions. While both of these companies were small players in the Canadian market, they warn that the risks and challenges of an international insurer becoming insolvent continue to grow.

The risk of a mid-size insurer becoming insolvent has increased in recent years. In 2002 and 2003, for example, 17 PACICC members failed two or more of the five following tests of solvency vulnerability:

- A.M. Best ratings
- MCT scores
- return on equity
- change in net writings
- underwriting results.

Four of these vulnerable companies had annual premium income in excess of PACICC's current financial operating capacity. Moreover, PACICC does not have basic financial data on an additional 59 member insurers. Accordingly, vulnerability to insolvency may be even greater. The distribution of identified vulnerable companies (which does not include a number of insurers that were staged by OSFI but had sufficient financial

resources or support from a parent company to remain a low solvency risk) suggests that it would be appropriate to review PACICC's financial capacity and risk environment.

Despite recent improvements, Canada's P&C insurance industry remains vulnerable to the failure of small and mid-sized insurers.

Operational capacity

In 2004, PACICC began implementing the strategic plan that was approved in November 2003. This included focusing resources on improved governance, operating practices and research. PACICC is strengthening other aspects of preparedness including documenting insolvency operating procedures and developing a human resources strategy to manage a larger insolvency than has occurred to date.

PACICC now retains a core, multi-disciplined team that is continuously upgrading its analytical, accounting, investment, legal, insolvency and administrative expertise. This enables the corporation to deal effectively with emerging issues and situations of concern to policyholders and members. PACICC currently has a small, permanent professional staff equivalent to four full-time employees. Details of PACICC's operational capacity are outlined on pages 7 and 8 of this paper.

Financial capacity

PACICC conducted a financial capacity review that found that the Corporation currently has the financial resources to readily handle the insolvency of a national P&C insurer with \$267 million to \$288 million in annual claims liabilities, depending upon the lines of business, and hence the type of liabilities. While there would be pressure on PACICC's financial resources, the Corporation would be able to fulfill its mandate.

Provincial capacity remains an important element of PACICC's financial capacity and on a provincial basis, PACICC currently has the resources and capacity to handle the insolvency of an insurer operating within a single province or territory with between \$33 million and \$150 million in unpaid claims liabilities annually, depending upon the province or territory.

Extent of coverage

The primary objective of PACICC is to protect the interests of policyholders, especially individual or non-professional policyholders in the event of bankruptcy of an insurance company. PACICC is expected to serve as the final safety net for policyholders, when in spite of all possible supervisory measures, an insurance company fails. PACICC provides coverage for all eligible policies including personal lines policies, small commercial and large commercial policies.

In the event of an insolvency, PACICC's claims liabilities are determined by the extent of coverage it provides. Different lines of business generate different claims and unearned premium liability distributions for the Corporation, affecting the timing and level of resources required to meet the obligations. The mix of business may influence PACICC's maximum annual capacity by as much as \$21 million. PACICC's financial capacity review has identified that the Corporation currently has

the financial resources to readily handle \$267 million to \$288 million in annual claims liabilities, depending upon the lines of business.

Basis of assessment

PACICC was established in 1988 as a national policyholder protection system for eligible coverage. While it functions as a national system, PACICC's normal operating financial capacity is generated on a regional basis. Assessments are levied on member companies in the jurisdictions where an insolvent insurer operated.

Provincial capacity remains an important element of PACICC's financial capacity, even among federally-licensed companies, as regional insurers are a large component of the industry. There are nearly 50 companies whose business is confined to a single province. There are another 30 companies that conduct more than three-quarters of their business in a single province. Fully 80 P&C insurers are regional players. Further, regional insurers in the industry often have a sizable share of the market. For example, two of the industry's largest 10 insurers and six of the largest 20 are geographically concentrated in a single province or region.

PACICC currently has the resources and capacity to handle the insolvency of an insurer operating within a single province or territory with between \$33 million and \$150 million in unpaid claims liabilities annually, depending upon the province or territory.

Adequacy of current capacity

Analysis and review of capacity prior to an insolvency assists in identifying the adequacy of operational and financial capacity. Operational and financial capacity analysis can lead to quicker, more comprehensive and lower-cost actions in response to unexpected events.

Operational capacity

Currently PACICC maintains a core, multi-disciplined team to deal effectively with emerging issues and situations. PACICC is enhancing its operational capacity by documenting insolvency operating procedures and developing a human resources strategy to respond to an insolvency of a mid- to large-size insurer.

Key procedures that PACICC has in place to help manage insurer insolvencies include:

- Internal *Solvency Report*, to help identify insurers who may be vulnerable
- Model Winding-up Order outlining claims handling and approval procedures, including the use of a third-party administration and adjusting agreement that PACICC recommends to all Court-appointed Liquidators
- In-house claims management expertise and the ability to supplement this with outside resources including Crawford and member-company claims personnel, as needed.
- Bilingual consumer information service provided for PACICC on contract by Crawford
- Planned communications initiatives, including the template press release and letter sent promptly by PACICC to stakeholders in the event of an insolvency (policyholders of the insolvent insurer and member companies, most importantly)
- Assistance available from insurance-industry partners such as IBC and GIO
- Expert legal advice that PACICC retains with Torys LLP
- Financial management assistance (through a contract with IBC) that helps PACICC secure and distribute funds quickly in the liquidation process
- Additional administrative assistance provided as required by personnel from PACICC's Toronto-based office partner, the Institute for Catastrophic Loss Reduction

PACICC is in the process of compiling its key insolvency management procedures – including those outlined above – in a single-source document.

We also intend to create a formal operations plan that will clearly identify additional resources that could be made available on an emergency basis to respond to extraordinary

circumstances – such as the failure of a mid- to large-size insurer. These additional resources may include seconding employees from member insurance companies or other potential partners. Operational planning is a management tool used to ensure adequate arrangements are made in anticipation of a crisis, that adequate follow-up actions are undertaken and that subsequent revisions of plans are made. Engaging in operational planning prior to an event assists in identifying the types of actions that may have to be taken during an insolvency, as well as the skills, policies and processes that would be required to support those actions. Operational planning can lead to quicker, more comprehensive and lower-cost actions to resolve unexpected events.

Financial capacity

PACICC has developed a Financial Capacity Assessment Model (FINCAM) to estimate the Corporation's liabilities and financial resources following an insolvency of a given size. The model estimates the movement of payments into PACICC from member insurers – through general assessment and the use of the Compensation Fund – to claimants and policyholders. The model allows PACICC to estimate potential inflows and outflows of financial resources, identifying when members are likely to have to be assessed and how often. It is such cycles of inflows and outflows that determine PACICC's capacity to pay claimants.

FINCAM can be used to evaluate PACICC's financial capacity by simulating whether or not PACICC actually has enough cash on hand or access to enough funds, to cope with an insolvency. The model has been tested against historical insolvencies and reviewed by supported as comprehensive and credible by OSFI. In five of the six test cases, FINCAM was able to predict claims liabilities within 10 percent of actual claims-related payments. Financial capacity is evaluated using the criterion that PACICC maintains a practical flexibility to handle the failure of an insurer, as well as the failure of a subsequent small insurer. Explicitly, PACICC is defined as having adequate capacity if its financial resources can handle another small failure 12 months after the initial failure.

Under the general model, PACICC has the financial capacity to handle the insolvency of an insurer with \$267 million in claims and unearned premium liabilities. The following table summarize FINCAM's analysis of PACICC's financial situation for the personal lines insurance company profile under the current revenue sources. In this table, the compensation fund is utilized in the first year of the wind-up in support of the general assessment of members. The failure of a mid-sized insurance company (with \$500 million in associated liabilities) would restrict PACICC's capacity to pay any claims or unearned premiums for any subsequent failure for a period of up to two years.

Deproyment of PACICC Financial Resources under Simulated Fanures					
Claims and unearned premium liabilities	Number of assessments*	Date when Compensation fund exhausted**		Years in which member assessments occur	
\$250 million	0.93	First month		First year	
\$500 million	2.01	First month		First year, second year, seventh year	
\$1 billion	4.22	First month		First year, second year, third year, fourth year, sixth year	
Summary Statistics on assessment (2003 at 0.75% rate))		
Summary Statistics on asso	essment (2005 at 0	.75% rate)		
# insurers with maximum assessment >\$5 million			15		
# insurers with maximum assessment >\$1 million			61		
Average assessment			\$1.5 million		
Median assessment		\$0.4 million			

Deployment of PACICC Financial Resources under Simulated Failures

*A ratio of 1.0 indicates a single maximum assessment of members.

In a competitive industry like property and casualty insurance, premiums closely reflect claims and unearned premium liabilities. During PACICC's 1997 capacity review, actuarial analysis by Exactor Insurance Services Inc. identified that an insolvent insurer generated \$1.50 in gross claims and unearned premium liabilities for every dollar of premium written. Taking account of the recovery from the estate of the insolvent company favourably reduced ultimate net claims liability for PACICC. As a rule of thumb, the claims and unearned premium liabilities of insolvent insurers for which PACICC members have been historically assessed are approximately \$1 for every dollar of premium written. This relationship is not perfectly linear and varies by line of business, limits of liability and size of risks, growth pattern of the insolvent company and the relative adequacy of rates. But it is reasonable to equate the industry aggregate unpaid claims and unearned premium liabilities with industry aggregate premium.

While it is the underlying claims and unearned premium liabilities that determine the need for financial capacity, it is more common and intuitive to identify insurer size with premiums. Given the historical relationship between premiums and claims liabilities and the common parlance in the industry, the following discussion will use premiums as a size indicator for the purposes of consistency.

In 1996, PACICC reviewed its financial capacity and initiated changes to the assessment rate and compensation fund in order to double its capacity and reduce a growing capacity gap. For a brief period following 1997, the relative size of the capacity gap was modestly narrowed and PACICC's capacity kept pace with growth in mid-sized and large insurers. However, since 2000 the capacity gap has increased again as consolidation and growth in the industry has eroded PACICC's capacity to respond to the insolvency of a mid-sized or larger insurer. In addition, the industry's size distribution is changing with growth in the number of mid-size and large insurers relative to smaller insurers (see technical

appendix). The number of mid-size insurers is growing and the proportion of small companies is declining.





As measured by DWP.

Source: PACICC, with data from MSA Research & Canadian Underwriter

Consolidation and growth in the industry has eroded PACICC's capacity to respond to the insolvency of a mid-sized or larger insurer. According to Swiss Re, 57 mergers have occurred in the Canadian P&C industry since 1997. This capacity gap – measured as the difference between PACICC's financial capacity and the average size of an insurer representing the top two-thirds of the industry, using either claims liabilities or direct written premiums as indicators – has grown since 2000.

The net result is that the Corporation's capacity to respond to the failure of a mid-sized or larger insurer has been substantially diminished.

Extent of coverage

To limit the protection of guarantee systems for those who really need them, many systems do not provide coverage for commercial risks. Research on insurance guarantee funds has concluded that, while they generally have performed well in meeting their primary objective of protecting policyholders and other claimants, the existence of a guarantee fund may lead to increased risk-taking behaviour for commercial coverage – a moral hazard problem. In particular, researchers at Georgia State University, the Wharton School at the University of Pennsylvania, Sejong University (Korea) and the University of South Carolina have found that moral hazard effects are greater in commercial coverages than personal property coverage. The research is consistent with the principle that individual policyholders or small businesses have less capacity to evaluate the financial condition of an insurer. Commercial risks are generally better equipped than individual consumers to evaluate the financial condition of insurance companies. They often have the in-house expertise to evaluate an insurer's financial data, or they receive assistance from large sophisticated commercial brokers.

The academic and empirical research suggests that guarantee fund design and best practices should provide a balance between incentives for financial safety and protecting consumers from losses in the event of insolvency. Such a balance could be achieved by reducing or even eliminating the scope of guarantee-fund protection for commercial insurance. This would increase incentives for commercial buyers to deal with financially sound insurers and would discourage policyholders from buying coverage that is underpriced.

Further, restrictions on commercial coverage risks improve the fairness in financing an insolvency. For example, in two of Canada's larger and more recent insolvencies – Markham General and Maplex – commercial policies represented less than 18 percent of total eligible premiums but represented 33 percent of the claims costs to PACICC. Given that personal insurance lines represent nearly three quarters of the assessable premium, this imbalance results in a net transfer from personal policyholders to commercial policyholders following an assessment.¹ The size of this net transfer would be even larger for the insolvency of a commercial lines insurer.

Responding to the argument that the claims of large, sophisticated commercial policyholders should not be covered by insurance guarantee funds, many countries have adopted mechanisms to protect individual and small business policyholders while limiting exposure to commercial coverage for larger corporate entities. It should be noted that many jurisdictions utilize more than one mechanism.

Among industrial countries with P&C insurance guarantee funds, only Canada, Spain and Norway provide compensation for large commercial claims.

Basis of assessment

A consequence of PACICC's regional assessment approach is greater reliance on the compensation fund to provide financial capacity for addressing certain insolvencies. In five provinces and all three territories, there is a limited assessment base and the compensation fund accounts for more than half of the financial capacity. In those jurisdictions, the compensation fund is the *de facto* primary mechanism for insolvency funding, and the general assessment is the secondary mechanism. In general, the compensation fund accounts for 25 to 99 percent of PACICC's financial resources, depending upon the jurisdiction in question.

The main strength of the regional approach to financing insolvency is fairness: companies and policyholders of other regions do not have to finance the insolvency that occurred in another jurisdiction. There are at least three alternative approaches for determining assessments on a regional basis:

- aggregate premium distribution of the lines of business and jurisdictions affected
- premiums written in the relevant provinces by the insolvent insurer
- claims incurred in the relevant province related to the insolvency.

¹ For example, PACICC estimates the net aggregate subsidy from personal lines policyholders to commercial policyholders for the Markham General and Maplex insolvencies to date at \$1.1 million.

Currently, PACICC rules stipulate that member insurers are assessed based on the aggregate premium distribution of the lines of business and jurisdictions affected. If an insolvent insurer underwrote policies within a province, all insurers within that province become eligible for contributions to cover claims and unearned premium costs. As a result, it is possible that insurers in a jurisdiction where the insolvent insurer underwrote only a small number of policies could contribute disproportionately to financing the cost of the insolvency. In fact, this approach led to some concern about the fairness of the Markham General assessment, as the current formula assessed member companies in some jurisdictions far in excess of the business written by Markham General in those jurisdictions.

Amending the general assessment mechanism to allow only for some variation of ownprovince assessment (the insolvent insurer's premium written in the relevant province(s) or by claims incurred) would improve the fairness of the general assessment method for financing insurer insolvencies. Member assessment based on premiums written would require fewer administration costs than other methods of assessment. Assessment based on claims incurred would require the utilization of the compensation fund until actual claims costs were known and could be recovered from member insurers in the relevant jurisdictions. Administration costs for the claims cost method would outweigh equity benefits relative to the share of business method of assessment.

Options for Improving Capacity

In 2003, PACICC reviewed its operational capacity and initiated measures to enhance it. These measures included recruiting a core multi-disciplined team and developing operating procedures for an insolvency, as well as a contingency strategy to respond to an insolvency of a mid-size insurer. Much of this effort was completed in 2004, and all should be in place during 2005. However, it has been nearly a decade since PACICC last reviewed its financial capacity in 1996. At that time, capacity was not keeping pace with industry trends. As a result PACICC increased its assessment rate and created the compensation fund. The changes initiated by that review doubled PACICC's financial capacity in response to a growing capacity gap.

In recent years, up to half a dozen P&C insurance compensation funds in the United States have been unable to generate sufficient member assessment revenue to pay for compensation expenses. PACICC seeks to avoid this threat through proactive analysis and planning. Recent consolidation and growth in the industry suggests that PACICC should have the financial capacity to deal with an insolvency in the range of \$500 million to \$1 billion in claims and unearned premium liabilities.

PACICC's normal financial operating capacity is supported by member companies. This capacity must be financed in a fair manner that avoids imposing an excessive burden on member companies. For normal financial operating capacity to be fair, it must be able to be absorbed by member companies without undue pressure on their own balance sheets and solvency. In addition, the financing mechanism should minimize surprise or shock, and hence maximize predictability.

Research on guarantee fund design and best practices by the OECD and European Commission found that a mix of mechanisms to fund policyholder protection is the most efficient design for both consumers and insurers. This research stresses the importance of finding the appropriate *balance* between the various financing mechanisms. Rather than relying on a single approach, more effective and efficient systems rely on a balance of several financing mechanisms. This minimizes the cost of a mid-size insurer insolvency to member insurers while ensuring sufficient capacity to respond to the failure.

Options for improving the adequacy of PACICC's financial operating capacity include:

- an increase in the maximum allowable general assessment
- strengthen the capacity of the current compensation fund
- the Corporation establishing lines of credit with member companies
- the establishment of "PACICC" reserves among member companies
- agreements to borrow from the liquidator against estate assets
- a balanced mix of these financing mechanisms.

Selecting the appropriate balance will reflect the relative costs and benefits arising from the financial, legal, tax and organization of the industry in any given jurisdiction. The following table provides a comparison of the various financing mechanisms.

Comparison of Potential Financing Mechanisms

	Assessment	Liquidity Fund	Line of Credit with members	Insolvency reserves	Liquidator agreements
Location	Members	PACICC	PACICC/members	members	PACICC/liquidators
Access & timing	Significant lag	Immediate	Immediate	Modest lag	Modest lag
Acts as smoothing mechanism (i.e. reduces the need for assessment)	No	Yes, for insolvencies of small companies	No	No	Yes
Increases capacity	Yes	Yes	Shifts access to capacity	Yes	No
Timing of replenishment	n/a	Can be flexible – for small failures may be replenished through estate assets. Eventual assessment for larger failures.	Interest payments required shortly after line of credit drawn	Flexible	Loan repaid from assets of the estate. A shortfall may require an assessment of members.
Capital costs	None	Assessed contribution and lost interest earnings	Probable MCT capital charge for contingent liability	Reserves unlikely to be included in available capital	None
Tax implications for members	None	Contribution tax supported	As per contingent liabilities	Reserves tax supported Interest taxable	None
Effect on income statement	Acts as a source of income volatility	Predictable. Reduces income in assessed year	Introduces volatility	Predictable	None
Cascade effects	Potentially significant	Limited	Potentially significant	None	None
Administrative costs	None until assessment required	Small administrative cost for PACICC	Small	Member companies incur costs, OSFI oversight	Small administrative cost for PACICC and liquidator
Key comments	Slow response mechanism and the lag in receiving contributions may result in delays in payment to claimants.	Enhances consumer confidence in the industry. Provides greater predictability for member companies concerning future financial burdens. All insurance companies contribute, even companies that may eventually fail	Would require consolidation of LOC's with bank. Potentially require repayment soon after use resulting in two possible assessments on members.	Dependent upon regulatory and tax support. Would require agreement with OSFI and CCRA.	Not feasible in all cases. Dependent upon the situation of the estate and the liquidators risk tolerance. Historically, the ability to utilize the insolvent insurer's assets to offset PACICC's assessment requirements has been limited

An increase in the maximum permissible general assessment

The OECD has conducted a comprehensive review of insurance policyholder protection funds around the world. It notes that financing of insolvency through the general assessment has two key advantages. First, it requires a relatively low level of administration until an insolvency occurs. Second, the general assessment mechanism permits member companies to retain funds until funding becomes an immediate necessity.

However, general assessment is a slower response mechanism than other financing mechanisms as the funds must be assessed and collected from member companies before they can be paid out to claimants and policyholders. General assessment financing also creates uncertainty for member companies and leads to income volatility.

PACICC's maximum annual allowable assessment rate (³/₄ of one percent) is among the lowest in the world today. Canada and Spain are the only jurisdictions where the maximum is less than one percent, while all other jurisdictions are between one and three percent. Jurisdictions that solely utilize a general assessment method for financing the guarantee fund have, on average, a threshold rate of two percent.

Other jurisdictions with a mix of other financing mechanisms (generally a liquidity fund) and general assessment have an average maximum assessment rate of one percent. For example, France, with a comparable cost of insolvency to Canada (measured by liquidation costs as a proportion of net written premiums), maintains a threshold assessment rate of one percent and a generous (\$432 million CAD) liquidity fund.



Source: PACICC, with data from European Commission & OECD

Continuing consolidation in the industry has eroded the general assessment's capacity to respond to the insolvency of a mid-sized or larger insurer. According to Swiss Re, 57 mergers have occurred in the Canadian P&C industry since 1997. The net result is that PACICC's general assessment base grew at half the rate of the industry's larger insurers, effectively diminishing PACICC's capacity to respond to the failure of a mid-sized or larger insurer.

For consumers, a higher assessment threshold would increase PACICC's capacity to support policyholder and claimant demands from a larger insolvency earlier in the liquidation process, rather than possibly delaying payment to some policyholders and

claimants until sufficient resources become available. For member companies, the higher maximum assessment rates would have no impact on the overall amount paid, but could require that the payments be made earlier. Alternatively, there is less pressure for a higher assessment threshold if the compensation fund is larger and constitutes a greater proportion of PACICC's financial capacity.

In smaller provinces and territories, the small base of assessable premiums means that a higher assessment rate would only have a marginal impact on PACICC's practical, normal financial operating capacity. In the larger provinces a higher assessment rate could increase the number of companies falling within PACICC's financial capacity by up to one half, depending upon the actual rate.

In addition, during difficult market conditions, higher levels of maximum allowable assessment may lead to a cascading effect where another company becomes insolvent from the additional burden of contribution to the guarantee system. A Canadian example of this effect occurred in the life and health insurance industry in the early 1990s, straining CompCorp members in Quebec following the wind-up of Les Coopérants in 1992. PACICC analyzed the vulnerability of member companies to the potential for such a cascade effect and found that general assessment may have important effects for some insurers. The table below summarizes the potential cascade effects for a simulated maximum assessment in 2003.

	Maximum Allowable General Assessment Rate			
	0.75%	1%	1.5%	2%
No. of companies with net income reduced to a loss	5	10	12	21
DWP of affected companies	\$536 million	\$1,479 million	\$1,710 million	\$3,764 million
MCT/BAAT effects				
No. companies moved below supervisory target	1	2	3	4
No. companies moved below 125%	1	1	1	2
No. companies moved below supervisory minimum	0	0	0	1
Average change in MCT	(2.99)	(5.32)	(7.98)	(10.64)
Average change in BAAT	(2.03)	(2.71)	(4.06)	(5.41)
Maximum change in MCT	(17.35)	(33.43)	(50.00)	(66.56)
Maximum change in BAAT	(12.85)	(17.13)	(25.69)	(34.26)

The results highlight the volatility that PACICC's general assessment mechanism can generate on insurance company balance sheets. In addition to the effects on the income statement, a general assessment may also adversely affect a company's MCT score. As industry results improved in 2003, an assessment in a year with weaker results would have the potential for greater cascade effects.

Strengthen the capacity of the current compensation fund

When PACICC established its compensation fund in 1997, the Corporation reviewed the size of past insolvencies, focusing on its financial capacity to meet its obligations for unearned premiums while retaining modest additional capacity for unexpected events. Following this review, PACICC concluded that its compensation fund should:

- handle the unearned premiums from the failure of an insurer with \$100 million in direct written premiums; and
- permit PACICC to respond to the failure of a small insurer in a smaller jurisdiction (writing approximately \$30 million in direct written premiums). In 1997, \$30 million in direct written premiums represented the median size of a Canadian P&C insurer.

Research by the OECD and European Commission suggests that liquidity funds have a number of advantages including readily available funds to respond quickly to an insolvency, enhancing consumer confidence in the industry, and providing greater predictability for member companies concerning future financial burdens. Research by Dr. Andreas Horsch at the Ruhr-Universität Bochum (Germany) notes that because liquidity funds require all insurance companies to contribute, even a company that eventually fails will have contributed to part of the bill for the insolvency. The disadvantages of a liquidity fund are primarily the costs associated with its administration and any income that member companies forgo through lower rates of return earned by the guarantee scheme.

PACICC's compensation fund was initially established to have the capacity to respond to a single failure of half the companies in the industry. Since the compensation fund was created, three factors have affected its ability to meet the dual objectives outlined above:

- premium growth in the industry increased the unearned premium liabilities for most insurers (an *adverse* impact);
- consolidation in the industry increased the size of the average and median insurer, raising the unearned premium liabilities for a given insolvency (an *adverse* impact); and
- innovations in premium payment methods have increased monthly and other term payments, limiting unearned premium liabilities (a *favourable* impact).

Between 1997 and 2003, the industry's premium base doubled, growing from \$18.6 billion to \$37 billion, eroding the compensation fund's capacity in real terms to respond to a failure of an insurance company. Continuing consolidation in the industry is further eroding the compensation fund's effectiveness. According to Swiss Re, 57 mergers have occurred in the Canadian P&C industry since 1997. The net result is that PACICC's compensation fund:

- was capable of responding to 50 percent of the potential insurance company failures in 1997
- but that fell to 29.6 percent in 2003, and
- it is likely to be less than 25 percent by 2007.

The decline would have been even greater if it were not for innovation and changing patterns of premium payment. Predominantly, annual payment of premiums has been replaced with a greater diversity of premium payment plans. This has reduced the unearned premium liability demand on the compensation fund by about 40 percent.

Accounting for each of these factors, PACICC's compensation fund would need to be \$84.3 million to meet its original mandate of being capable of responding to the failure of a median-size insurer.

Among countries with a guarantee system for the P&C industry, Canada maintains the smallest liquidity fund relative to its market size and insolvency rate. The size of these liquidity funds varies dramatically.²



Comparision of Liquidity Fund Levels

Source: PACICC, based on OECD data

To strengthen the compensation fund, a number of options exist – through variations of equity (member capital) or debt (bond issue or line of credit) financing – and a key criteria is whether a given option is the most efficient and lowest-cost method of doing.

Strengthening the compensation fund through member assessments over a period of 3 to 5 years would permit member contributions to be tax supported. Income would be reduced and members would have lower retained earnings to add to assets in assessed year. Under a debt (bond) issue scenario, PACICC members would pay an additional annual fee of about \$3 million that would be used to pay interest charges. Investors in corporate bonds lend money to the issuing corporation in exchange for interest payments and repayment of the principal at a set maturity date. An alternative option would be to direct monies received through liquidation funds go to the compensation fund. As a liquidation proceeds, some of the assets of the estate become available to PACICC as repayment of the original PACICC amounts transferred to the liquidator at the beginning of the wind-up. The actual amount is highly variable and is contingent on the liquidators assessment of the estate. Historically PACICC

² Compensation fund levels in various countries expressed in Canadian \$millions: Canada, \$34 m; France, \$432 m; Japan, \$589 m; Norway, \$107 m; and Korea, \$70 m. Currencies converted to Canadian dollars at market rates for September 15, 2004.

has then held these funds against an adverse development that might require an additional payment by PACICC, reducing the likelihood of additional member assessments. Directing these funds, as the liquidation winds up and the probability of an adverse development declines, to the compensation fund would eliminate the general need for a member assessment and enhance the fairness of strengthening the compensation fund.

As the liquidation funds are financed by the jurisdictions where a solvency occurred, jurisdictions with higher rates of insolvency would provide a greater contribution to the compensation fund than companies operating in jurisdictions with a lower incidence of insolvency. Directing liquidation funds toward the compensation fund is in effect a risk-based assessment of member companies.

A complementary line of credit would also allow PACICC to draw quickly on resources to respond to claims and unearned premium liabilities should an insurer become insolvent, bridging the gap between the actual and target levels of the compensation fund.

In five provinces and all three territories, the current compensation fund critically acts as a smoothing mechanism for insurers operating in those provinces. Without the compensation fund, member companies in these jurisdictions would face continuing assessments in the event of even the insolvency of a small insurer with more than \$6 million in direct written premiums. In those jurisdictions, the compensation fund is the primary funding mechanism for an insolvency, and the general assessment is the secondary mechanism.

While the fund is currently insufficient, this smoothing function could be extended to the larger provinces. For example, a compensation fund of \$84 million could fully respond to an insolvency the size of Maplex (approximately \$60 million) and still retain approximately \$35 million in resources available to respond to an additional failure.

If the eventual liquidation dividend from the assets of the insolvent insurer were used to replenish the fund, depending on the size and timing of the expected dividend, the assessment requirements on member insurers could be limited or perhaps be unnecessary. For the failure of small insurers, a compensation fund of a determined size could potentially become the primary funding mechanism for insolvencies of a corresponding size, alleviating the need to assess members. The general assessment could therefore be utilized for mid-sized or larger insolvencies. In addition, insurers would also be able to factor any future payments into their corporate financial planning processes.

Assuming a risk tolerance threshold of 50 percent (that is 50 percent of the fund could be drawn for an insolvency before a replenishing assessment was triggered) then the following compensation fund levels could act as smoothing mechanisms for failures of the corresponding size:

Fund levels	Corresponding size of failure within risk tolerance			
\$34 million	\$22 million	(Markham General)		
\$50 million	\$33 million			
\$60 million	\$39 million	(Northumberland)		
\$70 million	\$46 million	(Advocate General, Reliance Insurance)		
\$84 million	\$55 million	(Maplex General)		
\$100 million	\$68 million			

It should be noted that PACICC's compensation fund, as it is currently used, is not a true smoothing mechanism. It effectively acts as a cash flow mechanism, allowing PACICC to meet early obligations. It is replenished by a member assessment after funds are utilized.

A liquidity fund is a smoothing mechanism that under predetermined thresholds reduces or eliminates the need for member assessment in the event of a small insurer insolvency. A liquidity fund is effectively a pre-booking and payment of liabilities with the expectation that if an insolvency meets specified criteria, the liquidity fund would meet PACICC's obligations and be repaid out of the insolvent insurer's assets over time. If the liquidity fund falls below a specified threshold due to a larger or multiple insolvencies, members would be assessed to restore it.

To transform the current compensation fund into a true liquidity fund and smoothing mechanism, a standard operating procedure for the fund would be required that clearly indicates:

- the circumstances when the fund may be used as a smoothing mechanism
- how estate dividends can be used to replenish the fund
- the risk tolerance threshold and rules for assessments to replenish the fund
- the size of the liquidity fund.

In replenishing the compensation fund, PACICC would have greater flexibility and capacity to ensure that the timing of any assessments reduced the likelihood of cascading effects.

In general, liquidity funds improve the predictability of future financial burdens for member companies. Because the fund postpones the need to assess member companies by up to a year or more, it allows additional time for member companies to incorporate future payments into their corporate financial planning processes.

Line of credit

An important weakness of a liquidity fund as a funding mechanism is that it is capital that an insurance company must transfer from itself to the policyholder protection scheme. In addition, member companies forgo income through lower rates of return earned by the investment of this capital by the guarantee scheme. To address these weaknesses while ensuring liquidity for the payment of claims and unearned premium liabilities, member companies could establish a line of credit with PACICC, based on a proportion of their assessable premium. The Corporation would then act as a consolidator, taking the individual companies line of credit covenants to a bank that would issue the funds in one transaction when a failure occurs. Alternatively, the Corporation could negotiate a line of credit with a financial institution, secured against either its general or administrative assessments. A line of credit would have similar implications as a letter of credit.

One strength of a line of credit as a financing mechanism is that it allows companies to retain and invest their capital rather than transferring a portion of it to PACICC. It also allows PACICC to draw quickly on resources to respond to claims and unearned premium liabilities should an insurer become insolvent. However, a line of credit is a contingent liability – a potential liability which may become an actual liability when the failure of an insurance company occurs. As a result the line of credit secured by the general assessment may become subject to a capital charge under the MCT and BAAT.³ It is difficult to estimate what a PACCIC "letter-of-credit capital charge" would be.

However, currently under the MCT, letters of credit issued by insurers are subject to conversion factors and capital factors. Conversion factors are 100 percent for irrevocable obligations serving as financial guarantees.⁴ In addition, off-balance sheet exposures such as a line of credit to PACICC may become subject to a capital factor ranging from 0.5 percent to 4 percent depending upon the investment grade of the instrument.

As the nature of a PACICC letter of credit is different than that of other letters of credit (a member company line of credit to PACICC is essentially an advance on its own assessment contribution) regulators may opt to require an alternative capital factor. In addition, as line of credit financing is merely an advance on a future assessment, this approach may introduce volatility into member company income statements. Further, similar to a general assessment, during difficult market conditions, a letter of credit may lead to a cascading effect where another company becomes insolvent from the additional burden of contribution to the guarantee system.

In general, a letter of credit secured against the general assessment would enhance PACICC's ability to respond rapidly to the failure of an insurance company, but it would not increase the Corporation's capacity, as a letter of credit is an advance on its assessment contribution rather than new capacity.

³ The bank providing the consolidated line of credit would have a capital charge on the commitment as well. The capital requirement for banks providing standby letters of credit is 100% and 20% for commercial letters of credit that are collateralized.

⁴ A 50% conversion factor applies to letters of credit that are not general financial obligations but represent obligations backing the performance of the undertaking and as such not likely to apply to a line of credit to PACICC.

A line of credit secured against the administrative assessment has slightly different implications for member insurers. PACICC currently has access to a \$10 million line of credit through the Royal Bank of Canada. It is not secured through lines of credit from member insurers but rather is supported through the administrative assessment. A line of credit secured through the administrative assessment may not incur additional tax or capital charges as it is already accounted for in each members annual administrative assessment. However, as the administrative assessment is significantly less than the general assessment, the capacity to secure a line of credit through it would be limited.

Establishment of insolvency reserves

An alternative mechanism for ensuring sufficient financial capacity to pay insolvency losses when they occur would be the establishment of insolvency reserves. Important features of a successful reserve program would include:

- a tax supported premium reserve, where insurers may deduct contributions to the reserve as a business expense
- a tax supported insolvency reserve complement, the additional component needed (if necessary) after accounting for the premium reserve and any reinsurance, to achieve financial preparedness according to the formula
- tax support on interest income earned in the reserve, and
- some flexibility to balance the reserve.

Member companies would be required to maintain such a reserve according to a formula. At its simplest such a formula would be based on an industry target amount and each insurer's assessed contribution toward that amount. For example, such a formula for insolvency reserve may be the sum of a premium reserve and a reserve complement. The reserve complement would be the member insurers assessed contribution to some industry target less any reinsurance collectables, retention and premium reserve. Alternatively, a riskbased formula, recognizing line of business and jurisdictional risk, could be utilized within the IACT.

Under specified conditions, the *Income Tax Act* provides for special reserves which enable a taxpayer to deduct, in computing income from a business for a taxation year, amounts included in such income that, in very general terms, may be regarded either as unearned income or anticipated future liabilities.

The Norwegian Case

Norway has a unique arrangement whereby member insurers hold and manage their contributions to the fund in separate accounts. These accounts are required by the regulator and have tax implications. The funds must be readily accessible to the guarantee fund system.

Insurers are required to maintain such an account at 1.5 percent of premiums. The primary advantage for member insurers is that they may keep any investment income over what is needed to maintain the 1.5 percent level relative to the premium base.

France has adopted a variation of this scheme, permitting member insurers to hold and manage one half of their liquidity fund contributions.

An amendment to the *Income Tax Act Regulation* (Part IV, Division I, 1400) could add an insolvency reserve to the additional policy reserves permitted under this regulation. Premium income directed toward such a reserve would therefore be deductible for income tax purposes. In addition, PACICC would also seek to add a provision that would segregate investments relating to the insolvency reserve and to allow the income on those investments to accrue free of tax. Permitting flexibility to balance the reserve by permitting the transfer of resources into and out of the reserve would allow insurers to find the optimal mix between contributions to the reserve and reinsurance (where available). Insurers would still be required to ensure that the reserve contained a sufficient level of resources to meet its potential liabilities. Financial resources removed from the reserve would then become taxable.

The strength of the insolvency reserve option for member insurers is that it is incentive based through tax support, ensuring that there is sufficient capacity for policyholders and claimants should a mid-sized insurer fail. In addition, as member companies have dedicated reserves for insolvency there is less impact on the income statement and prudential capital tests, minimizing potential cascade effects that might lead to the failure of another insurer.

The weaknesses of the mechanism are that member companies incur additional regulatory costs as OSFI would be required to provide supervisory oversight of the reserves. In addition, given the earthquake reserving example – where tax support on interest income earned in the reserve and having some flexibility to balance the reserve has been resisted by government and supervisory officials – a full insolvency reserve mechanism may be difficult to achieve. Further, there would be capital costs incurred with the establishment of reserves as these reserves, would not be included in the allowable calculation of available capital under the MCT and BAAT.

A transition to a new reserve requirement could be phased over a period of time, allowing member companies to build the reserves smoothly without introducing volatility to their financial results. This option would depend on regulatory and tax support. Internationally, there is little experience with and precedence for this type of financing mechanism for policyholder protection funds.

Liquidator loans

Historically most claims and unearned premium expenses of a wind-up are incurred early in the liquidation process, and recoveries from the insurer's capital generally occur later in the process. In general the size and timing of recoveries has been highly variable but has rarely occurred before the third year of the liquidation process. For the failure of larger insurers there would be an initial need to pay out claims before assets may become available.

Some jurisdictions are recognized for their earlier intervention with a failing company and in such cases, more assets may be available during the liquidation process. In some recent insolvency cases from such jurisdictions, the liquidator has advanced PACICC financial resources against the assets of the failed company, mitigating the general assessment requirements.

In most cases however, the ability to utilize an insolvent insurer's assets to offset PACICC's assessment requirements has been limited. While it may not be feasible to borrow against the estate assets in all insolvency cases, PACICC may be able to negotiate with liquidation firms to identify pre-conditions for when a loan against an insolvent insurer's assets could be instituted. While this could reduce the need for a general assessment, such loans may not be feasible in all insolvency cases.

In those cases where the liquidator has advanced a loan to PACICC against the assets of the estate, the following pre-conditions or provisions were necessary:

- there was sufficient information about the assets of the estate early in the liquidation process
- the loan was secured against a portion of PACICC's assessment capacity
- PACICC pays interest on the loan amount (usually Prime rate)
- Liquidator may demand repayment of the loan at any time, subject to a notice period (generally 90 days).

Similar pre-conditions would be part of any liquidator agreement and the establishment of such an arrangement would ultimately depend on the situation of the estate and the individual liquidator's risk tolerance.

The primary advantage of liquidator loan agreements is the potential for reduced assessment requirements on member insurers. However, liquidator loan agreements may not be feasible in all insolvency cases and may not be possible in the early stages of a wind-up. There have been five insurance company wind-ups since 2000 and PACICC was able to secure liquidator loan agreements for two of these (Reliance Insurance Company and Canadian Millers Mutual Insurance Company). In one case (Reliance), the loan agreement has permitted PACICC to pay claimants without assessing members. In the other case (Canadian Millers Mutual Insurance) a loan agreement was initiated approximately one year following the wind-up order, and after the industry had been assessed for \$3 million. This loan agreement has alleviated the need for a subsequent assessment.

However, as the loan is secured against PACICC's financial capacity, a portion of the Corporation's assessment capacity and compensation fund is held in reserve and restricted from use in other insolvencies. A liquidator agreement thus acts as a smoothing mechanism but does not increase PACICC's available financial capacity. The liquidator loan agreements currently in force restrict PACICC's assessment capacity by \$52 million, or 20 percent of PACICC's total current capacity.⁵

In addition, as the capacity to enter into loan agreements is tied to PACICC's assessment and liquidity fund capacity, a liquidator loan agreement would not be sufficient for a midsized insurance insolvency under PACICC's current capacity.

⁵ The Reliance loan agreement commits PACICC to ensuring that it has \$50 million in financial capacity available. The Canadian Millers loan agreement only commits PACICC to reserving the amount outstanding on the loan (~\$2 million), rather than specifying a specific threshold. The estimated total of these two agreements is \$52 million.

Summary



Since PACICC was established in 1988, it has assessed members for the failure of a P&C insurance company in ten of the sixteen years of its operation. For member insurers, the risk of an insolvency assessment in any given year is significant. While the frequency of assessment has been relatively high, the size or severity of those assessments has fluctuated wide, but on average, has been increasing. Given PACICC's provincial assessment formula, in some cases this has represented a significant burden on member insurers in the affected jurisdiction.

These trends in the frequency and cost of insolvency are reflective of the risk environment and industry trends where the risk of a mid-size insurer becoming insolvent has increased. PACICC's financial capacity has not kept pace with these trends.

Research on guarantee fund design and best practices has found that an appropriately balanced mix of financing mechanisms is the most efficient design for both consumers and insurers for providing policyholder protection fund financial capacity. Financing mechanisms should be evaluated using three criteria:

- the financial capacity they provide to pay claims and unearned premium liabilities
- whether they function as a smoothing mechanism to minimize surprise and ultimately the impact on member company balance sheets, and
- which, among comparable mechanisms, generate the least cost to member insurers.

Rather than relying on a single financing mechanism, more effective and efficient systems rely on a balance of several to minimize the cost of a mid-size insurer insolvency to member insurers while ensuring sufficient capacity to respond to the failure. The appropriate balance selected reflects the relative costs and benefits arising from the financial, legal, tax and organization of the industry in any given jurisdiction. The following table provides a summary comparison of functions and the primary cost factors of the various financing mechanisms.

	Increases capacity	Smoothing Mechanism	Increases capacity & functions as smoothing mechanism	Cost factors
Increased maximum allowable assessment	Yes	No	No	Volatility to insurer income statements
Liquidity fund	Yes	Yes	Yes	Cost of capital
Lines of credit	No	No	No	Volatility to income statement, capital charges
Insolvency reserves	Yes	No	No	Regulatory
Liquidator agreements	No	Yes	No	None

Rather than relying on a single financing mechanism, a more effective and efficient financing arrangement may rely on a balance of several mechanisms to minimize the cost of a mid-size insurer insolvency to member insurers while ensuring sufficient capacity to respond to the failure.

PACICC has served insurance consumers and the insurance industry well since it was established 16 years ago. Changing circumstances, however, require a reassessment of the Corporation. This paper explores a number of the reform options that should be considered by member insurers. Overall, PACICC proposes that the following six recommendations to generate a balance of mechanisms to ensuring sufficient preparedness and capacity to respond to the failure while minimizing the cost of a midsize insurer insolvency to member insurers:

Operational preparedness

- 1. PACICC should develop standard operating procedures and contingency plans for handling the failure of a mid-size insurer.
- 2. PACICC should amend its current regional general assessment practices to be more equitable and adopt an own-province assessment method based on premiums written.

Short-term financial preparedness

3. PACICC should improve its access and timing to financial resources through either the liquidity fund or a member line of credit.

Long-term financial preparedness

- 4. PACICC should bring its coverage of large commercial risks into line with international standards and best practices and, through consultation with member companies, identify the best mechanism to ensure that financial resources are utilized appropriately to protect individual policyholders and small businesses.
- 5. PACICC should increase its long-term financial preparedness through a higher maximum allowable assessment threshold.
- 6. PACICC should negotiate clear pre-conditions and model provisions for loan agreements with liquidators.

Key information sources

- 1. Horsh, Dr. Andreas. *Insurance Guaranty Funds for the German Insurance Industry*, European Commission, 2004.
- 2. Yasui, Takahiro Insurance and Private Pensions Compendium for Emerging Economies: Policyholder Protection Funds – Rationale and Structure, Insurance and Pensions Unit, Organization for Economic Co-operation and Development, 2001.
- 3. TSX, Annual Report 2003.
- 4. European Commission, *Working Paper on Insurance Guarantee Schemes*, March 2004.
- 5. Miller, R. R. Summary Actuarial Report on PACICC Pre-funding and Assessments, Exactor Insurance Services Inc., February 1997.
- 6. McDonnell, William *Managing Risk: Practical lessons from recent "failures" of EU insurers*, Financial Services Authority, December 2002.
- 7. Davis, Dr. Kevin *Study of Financial System Guarantees*, Commonwealth of Australia, March 2004.
- Lee, Soon Jae, Mayers, David and Smith, Clifford W., Jr., "Guaranty Funds and Risktaking: Evidence from the Insurance Industry," <u>Journal of Financial Economics</u>, 44, 3-24 (1997).
- 9. Smith, Michael Larrey and Lee, Soon-Jae, "Property-Casualty Insurance Guaranty Funds and Insurer Vulnerability to Misfortune". The Charles A. Dice Center for Research in Financial Economics WPS #95-6.
- Grace, Martin F, Klein, Robert W and Kleindorfer, Paul R., "Homeowners Insurance With Bundled Catastrophe Insurance," <u>Journal of Risk and Insurance</u>, 71, 351 – 379 (2004).