California's Volatile Workers' Compensation Insurance Market

Problems and Recommendations for Change

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Preface

Since insurance rates were partially deregulated in 1995, the California workers' compensation insurance market has been very volatile. For reasons that go beyond price deregulation, there have been dramatic swings in insurers' underwriting profits and the share of coverage written by private insurance carriers, and a substantial number of insurers, including some of the largest market participants, have failed. The price paid for workers' compensation insurance by California's employers has been volatile since 1995 as well, continuing the considerable variation that occurred in earlier years.

This monograph identifies and examines factors that contributed to the market volatility and the large number of insolvencies following price deregulation. It also examines the regulatory system that oversees the workers' compensation market and how the California Department of Insurance (CDI) responded to the market turmoil that followed the move to open rating. Based on the findings, recommendations are made that aim to reduce the volatility of the market and the frequency of insolvencies while realizing the benefits of a competitive market.

The research was sponsored by the Commission on Health and Safety and Workers' Compensation (CHSWC) pursuant to Senate Bill 316, which was signed into law in 2007. This work was conducted jointly by RAND and Navigant Consulting. The work at RAND was conducted within the RAND Center for Health and Safety in the Workplace.

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Summary

The California workers' compensation insurance market entered a new era in 1995, when insurers were allowed far greater flexibility in setting rates. For reasons that go beyond price deregulation, the market has been very volatile since. Insurer pretax underwriting profit in the California market dropped dramatically in the second half of the 1990s, and 31 insurers that wrote workers' compensation coverage in the state, including some of the largest market participants, failed.[1] The market share of the State Compensation Insurance Fund (State Fund), which both provides workers' compensation coverage to employers that cannot find it elsewhere and competes with other insurers for business, rose to 53 percent in 2003, and the private market appeared near collapse. In response to legislative reforms between 2002 and 2004, the private market then sharply rebounded. Underwriting profits reached historic highs in 2006, and the State Fund's market share retreated to a more typical 20 percent. Recently, however, low pricing and rising claim costs have led some to fear a return to the dire conditions of the first part of the decade.

The price paid for workers' compensation insurance by California's employers has been volatile since 1995 as well, continuing the considerable variation that occurred in earlier years. Average premium per $100 of payroll net of policyholder dividends rose by 81 percent between 1983 and 1993 before falling 46 percent between 1993 and 1995. And, since 1995, average premium per $100 of payroll has varied by nearly a factor of three. Such variability makes it difficult for businesses to plan and makes California a less attractive place to do business. In addition, the insurer insolvencies have been costly to the state's employers, injured workers, and California residents more generally. Employers are expected ultimately to be assessed $4.9 billion to pay for the unresolved claims of insolvent insurers. Insolvencies can delay benefits to injured workers, and residents are affected because workers' compensation costs may discourage employers from locating in the state.

[1] While not large in number compared with the total number of insurers participating in the market, the insurers that eventually became insolvent accounted for between 23 and 31 percent of the market between 1995 and 1999.

The purposes of this monograph are to identify the different factors that contributed to the market volatility and large number of insolvencies following price deregulation and to suggest policy changes that can reduce the severity of these problems in the future. Our findings and recommendations are based on information obtained through interviews with a wide range of interested parties, detailed examination of eight insurer groups that became insolvent and eight that survived, a review of previous studies, and an analysis of data from the CDI, the Workers' Compensation Insurance Rating Bureau (WCIRB), the State Fund, the California Insurance Guarantee Association (CIGA), and the Conservation and Liquidation Office (CLO).

Findings

We identified six key factors that contributed to the insolvencies and volatility in the past 15 years:

- inaccurate projections of claim costs
- pricing below expected costs
- reinsurance contracts that gave insurers and reinsurers insufficient stake in the profitability of the policies they wrote
- managing general agents who had little financial interest in the ultimate profitability of policies
- underreserving for claim costs by insurers
- insurer policyholder surplus that was inadequate to provide a cushion against adverse events.

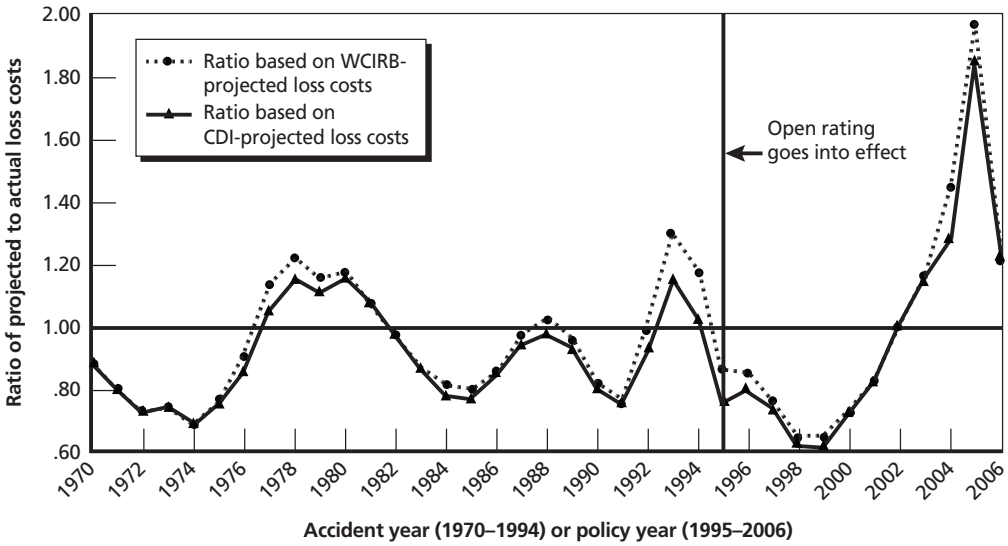
Next, we summarize our findings in each area. Refer to the glossary for information on unfamiliar terms.

Inaccurate Projections of Claim Costs

For reasons that had little to do with price deregulation, the cost of workers' compensation claims rose rapidly following the move to open rating. Delayed recognition of this rapid increase was an important factor behind the insolvencies. Absent accurate estimates of expected future claim costs, insurers tended to price policies too low and thus collect insufficient revenue to cover future claim payments.

Figure S.1 compares the projected claim costs from 1980 through 2006 with recent estimates of what the claim costs will actually turn out to be. Both the ratio of WCIRB-projected loss costs to recent estimates of actual loss costs and the ratio of the CDI-projected loss costs to recent estimates of actual loss costs are reported. In the years following open rating, projections swung from being

Figure S.1
Comparison of Claim Costs Projected by the Workers' Compensation Insurance Rating Bureau and the California Department of Insurance to Recent Estimates of Actual Claim Costs



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roughly 35 percent too low to nearly 100 percent too high. With a few exceptions, there is not a great deal of difference in the accuracy of the WCIRB projections and the CDI projections.

Repeated major legislative and judicial changes in the workers' compensation benefit system were primary drivers of the under- and overprediction of workers' compensation claim costs. A substantial increase in costs followed the *Minniear* decision in 1996 (*Minniear v. Mt. San Antonio Community College District*, 61 CCC 1055, 24 CWCR 261), and a substantial decline in costs followed a series of bills enacted by the California legislature between 2002 and 2004. It was very difficult to predict the effects of these changes on claim costs. Compounding the problem were a slowdown in claim-payment patterns in the second half of the 1990s, incomplete data on certain types of claims, and the fact that the WCIRB does not have direct access to transaction-level data on claim payments.

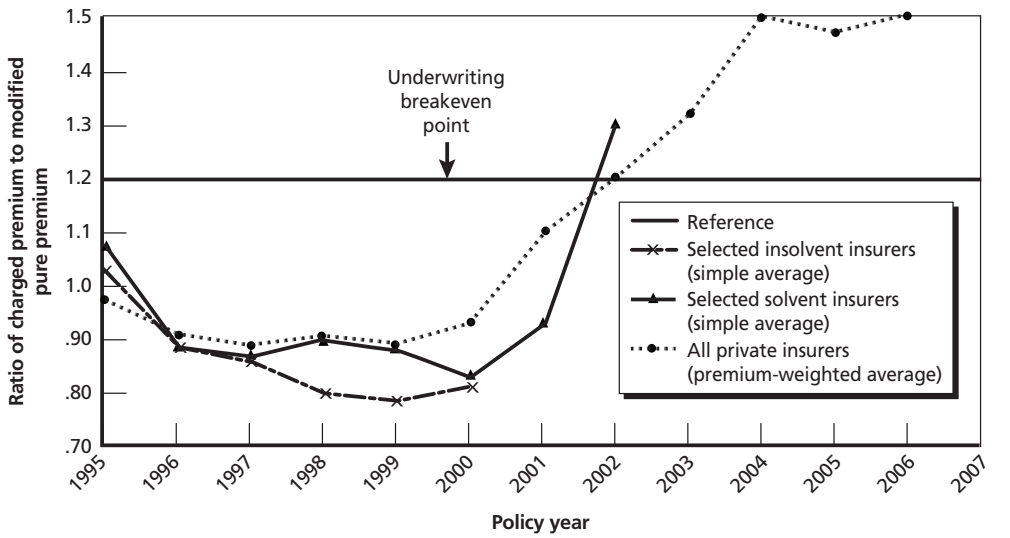
Pricing Below Projected Costs

The pricing practices of workers' compensation insurers during the second half of the 1990s contributed to the surge in insolvencies that began in 2000. Insurers charged prices that were below the already low projections of claim costs, resulting in revenue that was not adequate to cover the ultimate cost of the claims, let alone the other expenses incurred in writing the policies.

Figure S.2 shows the ratio of the premium charged by insurers to the *modified pure premium rate* (expected medical, indemnity, and loss-adjustment expenses adjusted to reflect an employer's recent claim history) approved by the CDI for that year. A ratio below 1.2 (which includes other insurer expenses) typically suggests that an insurer is not charging enough to cover the ultimate costs of providing the coverage.[2]

As shown in Figure S.2, the premium charged by California insurers (excluding the State Fund) was near or below the expected loss and loss-adjustment costs (ratio less than 1.0) between 1995 and 2000.[3] Also shown are the pricing ratios for the insurance groups selected for detailed analysis in this study. As might be expected, the figure suggests that the groups that ultimately became insolvent priced more aggressively than those that did not. The sample sizes are relatively small, however, and the differences may not be statistically significant.

Figure S.2
Ratio of Charged Premium to Modified Pure Premium, Calculated Using California Department of Insurance–Approved Pure Premium



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[2] Insurers earn a rate of return on their investment portfolios, and these returns can allow an insurer to earn a profit on its overall business even if it is losing money on its underwriting operations. The investment return earned on modified pure premium is typically on the order of 20 percent of pure premium, which roughly offsets the insurer's expenses not included in the pure premium rate. Thus, an insurer may still be making money on its workers' compensation operation if the ratio of charged premium to modified pure premium were 1.0 or higher. Other factors that would need to be considered in determining overall insurer profitability include federal taxes and the cost of capital.

[3] Note that the ratio is calculated using the CDI-approved premium rate. If the WCIRB-recommended rates were used, the ratios would be noticeably lower for some years.

We found that the low pricing was driven by a number of different factors, including the following:

- concern by companies that specialized in California workers' compensation market that national, multiline insurance companies would reduce rates to gain market share
- lack of experience among the smaller monoline companies in an open-rating setting
- unrealistically inexpensive reinsurance
- entry of group health insurers that mistakenly believed that their health-care experience would give them an advantage in controlling medical costs in the very complex California workers' compensation system
- reduced concern by employers about the financial health of insurers, given that CIGA pays the claims of insurers in the event they become insolvent
- aggressive competition from the State Fund.

Our analysis suggests that the State Fund was competing aggressively for large accounts in the late 1990s and the early 2000s. The ratio of charged premium to modified pure premium did not decline much in the period following open rating for the State Fund's smaller accounts, but it dropped sharply for larger accounts, resulting in charged premium that was well below expected loss and loss-adjustment costs. Due to the aggressive pricing and other factors, such as increased broker commissions and insurer insolvencies, the number of large policies written by the State Fund jumped dramatically between 1999 and 2003, and the State Fund's market share jumped from 22 percent in 1999 to 53 percent in 2003.

The CDI became aware that insurance rates were inadequate at several companies in 1999 but did not act aggressively to force insurers to raise rates because of both a limited ability and limited willingness to act. Before 2002, when new legislation was enacted, the CDI was required to show that an insurer was operating in a way that would impair or threaten its solvency before it could require rate increases. This requirement limited the CDI's ability to act quickly because the consequences of low workers' compensation rates typically become manifest only slowly over time and because multiline insurers can offset losses in workers' compensation with returns in other lines. A strong philosophical commitment to rate deregulation at the department during the second half of the 1990s and concern that higher rates would dampen economic activity reduced the department's willingness to act.

Reinsurance Contracts That Gave Insurers and Reinsurers Insufficient Stake in Profitability of the Policies They Wrote

The workers' compensation reinsurance market changed importantly in the mid-1990s with the entry of several large life insurers that wrote reinsurance treaties that provided reimbursement for the health and disability losses resulting from workers' compensation accidents. The life underwriters had little experience in the workers' compensation market and wrote treaties that reimbursed insurers once claim costs exceeded relatively low levels. The pricing offered for this protection was also far below normal.

While reinsurance is a critical part of a well-functioning workers' compensation market, the particular reinsurance arrangements that arose during this period contributed to at least some of the insolvencies. The negative repercussions of reinsurance in this setting were a consequence of some insurers not retaining a large-enough stake in the ultimate profitability of the policies they wrote. The very low reinsurance retentions created incentives to reduce prices, relax underwriting standards, and passively process claims. In the late 1990s, insurers were starting to see the need to increase prices, but availability of low-cost reinsurance with low retentions delayed pricing increases.

The reinsurance rates that many thought were too good to be true did indeed turn out to be so. Once reinsurers realized that their exposure to losses was much greater than what they had allegedly been led to believe at the time the contracts were negotiated, they began to delay payments and seek arbitration to suspend or modify terms of their reinsurance contracts. Some insurers had written policies on the presumption that attractive reinsurance reimbursement would be available. Once the reinsurance contracts were rescinded or modified, the insurers bore a greater share of the costs of the policies. Had the insurers retained a greater financial interest in the business they wrote, they might have taken more care in the pricing and underwriting decisions for which they were ultimately responsible, regardless of whether reinsurance was collectible.

Managing General Agents Who Had Little Financial Interest in the Ultimate Profitability of Workers' Compensation Policies

Managing general agents (MGAs), who are empowered by an insurance company to produce, underwrite, and commit the insurer to a policy, were active both in the primary California workers' compensation insurance market following the switch to open rating and in the reinsurance markets to which the primary carriers turned. While many of those interviewed for this study stated that there are responsible MGAs who have performed well over time, the actions of some MGAs exacerbated the volatile market conditions following open rating and contributed to some insolvencies. MGAs are often given authority to negotiate and bind insurance policies ("given the pen") but are not required to invest in the insurer's bal-

ance sheet. Because losses in workers' compensation take many years to develop, the profitability of the policies they write is not clear for at least three or four years, and conflicts are created between the growth goals of MGAs and the profitability concerns of insurers or reinsurers.

Underreserving

Analyses by the WCIRB suggest that, following open rating, California workers' compensation insurers in the aggregate failed to post reserves that were adequate to cover the claim costs expected at that time. Beginning in 1999, the WCIRB calculated the difference between the claim costs reported by insurers (which include reserves for future claim costs) and its estimate of the ultimate cost of the claims. In 1999, reported losses were $4.3 billion below WCIRB estimates of ultimate claim costs, and the gap reached $12.4 billion in 2002—larger than the $11.0 billion in workers' compensation premium written that year.

Insurance regulators have put in place requirements meant to deter and detect underreserving. The CDI conducts regular financial exams to assess reserve levels, and, since the early 1990s, insurers have been required to annually submit an opinion from a qualified actuary attesting that their reserves are adequate. It was only after CDI examinations that large reserve deficiencies were uncovered at several of the insolvent insurers selected for detailed study. The large amount of underreserving occurred despite the fact that an actuary confirmed that the reserves of each insurer were reasonable. These findings suggest that the system for ensuring that reserves are adequate had broken down.

There are a number of reasons that actuaries may declare reserves reasonable when they are most likely not. Important among them is the fact that insurers hire and pay actuaries and can change actuaries if they do not like the findings. Also important is the fact that most actuarial firms do not have seasoned claim personnel on staff and, thus, are not able to independently opine on whether the reserves posted for individual claims are reasonable. Rather, actuaries typically rely on data provided by the insurer on claim frequency, payments to date, claim reserves, and reserve-development factors (changes in reserves over time). Thus, an actuary may be unaware that an insurer's reserve practices have changed and fail to appropriately account for these changes in his or her estimates of ultimate claim costs.

Inadequate Surplus Cushion

The policyholder surplus held by the insurers that ultimately become insolvent did not provide an adequate cushion for the adverse events that led up to their insolvencies. As evidenced by the $4.9 billion in expected employer assessments, the assets of these insurers turned out to be billions of dollars short of their liabilities. The risk-based capital (RBC) system developed by the National Association of Insurance Commissioners (NAIC) specifies how much policyholder surplus a

property-casualty insurer should hold and spells out what regulatory actions are appropriate should policyholder surplus fall below the target. The RBC system was not fully in place during the period leading up to the insolvencies, and we thus examined what type of regulatory action would have been indicated if the current RBC system had been in place.

For four of the eight insolvent insurers selected for detailed analysis, the *company action level* would not have been triggered at all or would have been triggered at nearly the same time the insurer was taken over by the CDI.[4] Thus, the RBC system would have been of little help in prompting action to avert these insolvencies. For two of the other four insurers, the company action level would have been triggered nine months before the company was taken over by the CDI. The current RBC system could therefore conceivably have resulted in corrective action before these insurers were conserved by the CDI. However, it is up to the insurer to identify the conditions that contributed to the company action level and to prepare a corrective action plan. Preparing the plan, CDI review, and implementation all take time, with the result that, in these two cases, there may not have been much that would have been done before the insurers were conserved. If that were the case, the RBC would again have done little to avoid a situation in which insurers had inadequate assets to cover their claims.

Large reserve deficiencies were discovered at three of the four insurers for which the company action level either would not have been triggered or would have been triggered at the nearly the same time as conservation. If the losses at these companies had been properly reserved, the company action level may have been triggered earlier. However, the fact remains that the current RBC action levels did not do a good job of indicating trouble for insurers that underreserve.

Recommendations

Based on our findings, we offer policy recommendations to reduce the volatility of the market and the frequency of insolvencies while realizing the benefits of a competitive market. The recommendations are motivated by goals that seem desirable for the workers' compensation market:

- Coverage should be available to all businesses.
- Workers' compensation insurance prices should reflect the cost of providing the required benefits.

[4] The first level of response in the RBC system is the company action level. When the company action level is triggered, the insurer must identify the conditions that contributed to the event and prepare a report to the commissioner outlining the corrective actions the company intends to take in order to come back into compliance with the RBC requirements.

- The market should encourage innovation.
- Insurer liquidations and insolvencies should be rare.
- The market should not be overly volatile.

Four broad themes run through the recommendations. A first theme is the importance of improving the predictability of the workers' compensation system. During our interviews, the lack of predictability was repeatedly emphasized as a key driver of the volatility in the market following open rating. A second theme is the benefit of enhancing the transparency of the system. Providing more information to investors and other market participants allows them to better monitor the actions of workers' compensation insurers and can help curtail some of the excesses that can occur in an open-rating setting. A third theme is the need to better align the incentives of the major players involved in the workers' compensation market, and a final theme is the need to improve CDI oversight. In this section, we provide an overview of the recommendations. A detailed discussion of each recommendation is contained in the body of the monograph.

Improve the Reliability of Cost Projections

The WCIRB has responded in a number of ways to the substantial unreliability in cost projections during the past 15 years. For example, in response to a request from the CDI, it conducted an assessment of the accuracy of its rate filings. It also retained an outside firm to conduct a thorough review of its rate-making methodologies and established a committee to identify changes in medical and indemnity costs early on. In addition, it is developing plans to collect transaction-level data directly from insurers.

While cost projections will always be subject to error, making the system more predictable and improving the WCIRB's and the CDI's access to data can improve the accuracy of cost projections in the future. The following three recommendations aim to make the system more predictable:

1. *Increase clarity of legislative intent.* The legislature can help reduce uncertainty about the impact of reforms by writing legislation in unambiguous language and being as clear as possible about the intent and scope of the legislation.
2. *Expeditiously release guidance and regulations on issues when there are important disagreements among stakeholders.* The California Department of Industrial Relations (DIR) could reduce uncertainty about the interpretation and impact of legislative reform by more expeditiously issuing regulations and guidance.
3. *Review the performance of the Workers' Compensation Appeals Board system.* The evaluation should focus on the consistency of decisions across judges as well as how closely judges follow the law.

The next three recommendations attempt to help the WCIRB, the CDI, and insurers do a better job of predicting costs:

4. *Explore the most appropriate way for the WCIRB to take advantage of transaction-level data.* The advantages of alternative approaches for providing the WCIRB with direct access to transaction-level data should be explored. Analysis of such data could allow the WCIRB to recognize emerging trends not yet explicit in benefit payment data.
5. *Increase the comprehensiveness of data provided to the WCIRB.* The cost and practicality of providing or improving the data available to the WCIRB should be examined for three types of claim payments: payments by CIGA on the claims of insolvent insurers, payments on claims by self-insured employers, and payments on claims brought under large-deductible policies.
6. *Fast-track analyses of the impact of important legislation and judicial opinions.* Such analysis by CHSWC or other organizations can help the WCIRB and the CDI better anticipate the effects of important changes in the system.

Increase Pricing Discipline in an Open-Rating Setting

There have been a number of changes in the CDI's rate-making authority and procedures since the rash of insolvencies. In 2002, legislation was passed that allowed the CDI to require that workers' compensation rates be adequate to cover an insurer's losses and expenses. The CDI's financial examiners now interview the company's underwriting officer and review the company's underwriting policies. Although these changes are steps in the right direction, there appears to have been little fundamental change in the CDI's approach to rate regulation since the insurer insolvencies.

Some of those interviewed believed that California should return to some form of minimum-rate regime. However, support for such a change was not widespread. Others we interviewed supported prior CDI approval of workers' compensation insurance rates, as is done for many other insurance lines in California. However, given the pressure on the CDI to protect employers from high rates rather than inadequate ones, requiring prior approval does not seem to be a dependable solution for underpricing. The CDI might attempt to use its existing authority to require that workers' compensation rates be adequate to cover an insurer's losses and expenses. However, it is very difficult to regulate workers' compensation rates in an open-rating setting: Insurer pricing schedules are complex, and insurers can put together compelling arguments to support the rates they charge. In our view, a better approach is to retain competitive pricing but to emphasize solvency regulation.

Even though we do not recommend that the CDI attempt to ensure that rates are adequate, there are a number of changes that the CDI, the State Fund, CIGA, and other participants in the system can make that we believe would increase pricing discipline in an open-rating setting.

The following six recommendations are directed at the CDI:

7. *Make WCIRB pricing reports public.* Every quarter, the WCIRB provides the CDI with a confidential report comparing the premium charged to the modified pure premium for each insurer. Making these reports public would increase scrutiny of insurer pricing practices.
8. *Post insurers' annual and quarterly financial statements on the CDI Web site.* Insurers are required to submit annual and quarterly financial statements to the CDI. Posting them on the CDI's Web site would facilitate broader access to this information.
9. *Consider publicly releasing the results of CDI field rating and underwriting exams.* Releasing these reports would provide valuable information on whether the insurer has provided documentation and support for schedule credits and whether it is adhering to the rate plan and underwriting guidelines filed with the CDI.
10. *Impose penalties for violations in field rating and underwriting examinations.* There are no penalties in the insurance code specifically for violations uncovered in the field rating and underwriting examinations. Consideration should be given to imposing penalties sufficient to deter violations.
11. *Improve training and professional standards for workers' compensation underwriters.* Currently, there are no licensing or minimum certification requirements for insurer personnel who negotiate rates and terms with potential policyholders. The CDI could work with insurers and professional organizations to develop an appropriate training program that would increase professionalism and underwriting discipline.
12. *Create a whistle-blower program to report excessively low rates.* The CDI would also benefit from intelligence on low pricing from the people in the field, but currently there are no formal procedures for making such complaints. The CDI might set up a whistle-blower program and then pay particularly close attention to the surplus or RBC ratios of insurers consistently identified by whistle-blowers.

The next recommendation aims to improve incentives on the demand side of the market:

13. *Explore ways to give insurance brokers and other intermediaries a greater stake in the financial soundness of the insurers with which they place policies.* CIGA

might begin to levy surcharges on insurance brokers and other intermediaries who place policies with insurers that subsequently became insolvent.

The following two recommendations are designed to increase discipline in the State Fund's pricing practices:

14. *Publicly release the State Fund's ratio of charged premium to modified pure premium, by size of account.* Making these ratios public would allow better oversight of the State Fund's pricing practices for different-sized accounts.
15. *Increase State Fund staffing flexibility.* It is important to remove incentives for the State Fund to price more aggressively in a soft market, and such incentives may be created by the desire to maintain enough premium volume to support a fairly inflexible staffing level. The State Fund might consider setting a permanent staffing level required for a relatively low market share—say, 10 percent—and then address additional demands using temporary staff and contractors.

Better Align Incentives Created by Reinsurance and Managing General Agent Contracts

The California legislature and the CDI have moved to better align the incentives created by reinsurance contracts and by MGA contracts, but not far enough. The following suggestions may help mitigate the downsides of reinsurance while maintaining some of its benefits:

16. *Evaluate adequacy of current risk-retention requirement and enforcement mechanism.* Policymakers and regulators should assess whether the current requirement that insurers retain at least 10 percent of the risk in a reinsurance transaction is adequate. Providing the CDI with the authority to issue corrective orders to increase retentions and to impose fines when retentions are found insufficient or when insurers fail to comply with corrective orders should also be considered.
17. *Require licensed insurers to obtain approval before entering the reinsurance business.* Licensed insurance companies are generally free to enter the business of unaffiliated, assumed reinsurance in any of the insurance lines in which they are licensed. Policyholders and regulators should consider establishing a preapproval process that would review the business plan for such entries.

The following three recommendations aim to increase the stake of MGAs in the profitability of the insurer or reinsurer and to increase the care with which insurers monitor their MGAs:

18. *Broaden definition of* managing general agent *to include firms that take on substantial roles in underwriting or paying insurance claims.* Insurers and firms in the delegated-authority business are able to game the MGA definition in the California insurance code so as to avoid being legally classified as an MGA. Policymakers and regulators should consider how to broaden the MGA definition to capture a substantial share of the firms that, in effect, take on the insurance functions of insurers.
19. *Augment the requirements on MGA contracts to give MGAs more skin in the game.* The California insurance code requires profit sharing between insurers and MGAs to be delayed under certain circumstances until claims mature. Policymakers and regulators should assess whether the current language is sufficiently broad to apply to most circumstances in which insurers delegate important underwriting or claim-payment authority to outside firms.
20. *Enforce requirements that insurers regularly audit their MGAs.* Current code requires semiannual on-site review of the underwriting and claim-paying operations of an MGA. The CDI should monitor whether insurers are complying with this requirement and whether the audits meet minimum standards.

Improve Reliability of Actuarial Opinions

There was a sense among those we interviewed that the independence and objectivity of actuaries have improved in recent years. However, it is difficult to determine how often actuaries will opine that reserves are reasonable when they likely are not. Situations could still arise in which actuaries have incentives to give less-than-objective assessments. These suggestions aim to reduce the chances that such situations will arise:

21. *Require that actuarial opinions provide additional information.* Currently, the actuarial opinion states only that the reserves are reasonable. Opinions might be required to report a range of reserve projections using different actuarial methodologies and document the accuracy of the projections in past opinions and the identity of actuaries preparing those projections.
22. *Require that actuarial opinions review reserves for a sample of claims.* Requiring claim audits in certain circumstances based on statistically valid samples might allow actuaries to confirm whether there have been changes in reserving practices.
23. *Consider requiring the CDI to appoint and pay actuaries.* To reduce potential conflicts of interest in the preparation of actuarial reports, the actuary could be hired and paid by the CDI. The insurer could then be assessed to cover the costs of its actuarial opinion.

24. *Review the CDI's prioritization scheme for financial examinations, and consider a mandatory trigger for examinations.* It is important that the CDI continue to regularly conduct financial examinations and reserve studies. The CDI should review the system for prioritizing reviews that is now in place and consider whether to identify conditions under which an examination would be required.
25. *Impose penalties for inadequate reserving.* Currently, no penalties are assessed if a CDI financial exam reveals substantial underreserving. Policymakers and regulators should consider establishing fines that are sufficient to deter such behavior from recurring or occurring in the first place.

Improve Formula and Reporting Requirements for Risk-Based Capital to Maintain an Adequate Surplus Cushion

Our findings suggest that the RBC system in place today would not have done a particularly good job of alerting regulators to financial weakness and requiring regulatory intervention during the period leading up to the insolvencies. This conclusion is based on a fairly small number of insurers, however, and would be strengthened by including data on more insurers.

Here, we make a number of recommendations aimed at improving the ability of the RBC system to avoid the types of insolvencies that plagued the California workers' compensation market following open rating. In light of the ongoing Solvency II discussions in the European Union,[5] now is a particularly opportune time to consider such changes. Recommendations in this area are best implemented by the NAIC as opposed to the CDI, but, as the largest member of the NAIC, California is well positioned to make the case for such changes.

26. *Consider strengthening the trigger for the company action level.* The advantages and disadvantages of more-stringent thresholds for the RBC ratio and the combined ratio should be explored. Our investigation suggests that relatively modest changes in the current trigger would not make a major difference absent elimination of substantial underreserving. Further analysis is needed to determine the appropriate trigger, and progress in efforts to improve reserve adequacy should be an important factor in any such analysis.
27. *Consider modifying the RBC formula to better reflect the risks faced by workers' compensation insurers.* Currently, the RBC formula considers the worst average reserve-development percentage or the worst average loss ratio over a ten-year period, and the ten-year period is changed only infrequently.

[5] Solvency II is a set of regulatory requirements for insurance firms operating in the European Union. See EU (2009).

Lengthening the period would enable the RBC system to provide protection against a more diverse set of adverse events. The RBC formula also only partially reflects the risk of an insurer whose business is concentrated in states with a difficult workers' compensation market. Modifications to the RBC formula should be considered to more fully reflect the insurer's situation.

28. *Consider requiring insurers to submit RBC calculations more frequently.* Much can happen in the insurance industry in one year, and it seems appropriate to consider whether the RBC calculations should be updated either quarterly or semiannually.
29. *Introduce systemic risk and enterprise-level "stress testing" into evaluations of capital adequacy.* A shortcoming of the RBC approach is the implicit assumption that the past is reasonably predictive of the future. We suggest that, when evaluating policyholder-surplus adequacy, state regulators consider plausible scenarios that could stress workers' compensation insurers and their reinsurers, such as major court decisions, earthquakes, and economic downturns.

Moving Forward

These recommendations have been motivated by problems identified in the operation of the workers' compensation insurance market following rate deregulation. All the recommendations are in need of further evaluation and refinement, and it is important to the California economy that such an assessment be done and changes implemented expeditiously.

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Glossary

Many of these definitions have been adapted from IRMI (undated).

accident year. The annual accounting period in which loss events occurred, regardless of when the losses are actually reported, recorded, or paid

admitted assets. Insurer's assets permitted under statutory accounting principles to be taken into account in determining the insurer's financial condition for statutory purposes

allocated loss-adjustment expenses. The expenses of settling claims that are charged to a particular claim, including legal and other fees. The salary of the insurer's claim adjuster is not included in allocated loss-adjustment expenses.

assumed reinsurance. The business underwritten by the reinsuring company with an unaffiliated cedant. See also *cedant*.

calendar year. The accounting period running from January 1 through December 31 during which financial transactions are tracked, irrespective of the effective dates of the policies on which these transactions took place and irrespective of the dates of the accidents from which the loss transactions arose

case reserves. Represent insurers' estimates of the final costs of pending claims that are still open during the reporting period, as well as estimates of losses associated with claims that have yet to be reported

cede, cedant. In the context of reinsurance, when a party reinsures its liability with another, it cedes business and is referred to as the *cedant* or *ceding company*.

combined ratio. A combination of the loss ratio and the expense ratio, determined in accordance with either statutory or generally accepted accounting principles. A combined ratio of less than 100 percent generally indicates profitable underwriting before the consideration of investment income. A combined ratio of more than 100 percent generally indicates unprofitable underwriting before the consideration of investment income. See also *generally accepted accounting principles*, *statutory accounting principles*.

conservation, conserved. When an insurance company is conserved, the insurance commissioner takes over operation of the company.

direct written premium. Premium income of an insurer, not including income from writing reinsurance

earned premium. That portion of a policy's premium that applies to the expired portion of the policy. Insurance premiums are typically paid in advance, but insurers earn the premium at an even rate throughout the policy term. The unearned portion of the premium that has been paid is kept in an unearned premium reserve.

expense ratio. The commission expense, premium tax expense, and all general and administrative expenses incurred in operating the business, expressed as a percentage of premiums earned

experience modifier. A factor developed by measuring the difference between the employer's actual past experience and the expected or actual experience of employers in the same employer class

excess-of-loss reinsurance. A form of reinsurance that indemnifies the ceding company for the portion of a loss that exceeds the ceding company's retention

Form 10-K. An annual form that the Securities and Exchange Commission requires publicly traded companies to complete. It provides a comprehensive overview of a company's state of business.

generally accepted accounting principles. Uniform set of procedures and concepts that have been developed by general consensus of the accounting profession, to assist in the preparation of various financial statements

guaranteed-cost insurance. An insurance policy in which the insured pays a fixed premium for the policy term, regardless of the number and amount of losses that occur during the policy term

incurred losses. The total dollar amount of losses associated with insured events or situations occurring during a given time period. This is the sum of paid losses and case reserves. See also *case reserves*.

indemnity losses. Payments to an injured worker to replace lost earnings. They include temporary-disability payments, permanent-disability payments, return-to-work assistance, and death benefits. They do not include the cost of medical treatment.

insolvent. An insurer becomes insolvent when its assets are not adequate to cover the expected ultimate cost of the claims submitted by its policyholders and its other liabilities.

large-deductible policy. Under a large-deductible policy, the policyholder is responsible for all claim costs until the cost of a claim reaches a certain level (typically $100,000). In principle, the insurer still makes all claim payments under a large-deductible policy but then bills the policyholder for payments below the deductible.

loss-adjustment expense. The cost of investigating and adjusting losses. Loss-adjustment expenses are the sum of allocated and unallocated expenses. All expenses that can be allocated to a particular claim are called allocated loss-adjustment expenses; otherwise, they are unallocated loss-adjustment expenses

(unallocated loss-adjustment expenses would include such items as the salaries of claim adjusters).

loss rating. A rating technique often used for larger insureds in which that insured's past loss history is used to establish a prospective rate

loss, loss-expense ratio. The relationship of incurred losses plus loss-adjustment expense to earned premiums

managing general agent. A firm that is empowered by an insurance company to produce, underwrite, and commit an insurer to a policy

minimum-rate law. The law governing workers' compensation prices in California between 1915 and 1994, which prevented insurers from charging rates that were less than the rates approved by the insurance commissioner

modified pure premium. Premium calculated by applying the employer's experience modifier to the pure premium

open rating. The regulatory regime for prices that went into effect January 1, 1995, allowing insurers to set their own rates

policy year. Losses and other measures of performance for all policies incepted during a particular calendar year.

policyholder surplus. The difference between an insurer's admitted assets and liabilities—i.e., its net worth. Reserves are considered a liability and not included in policyholder surplus. Also called *statutory surplus*. See also *admitted assets*.

prior approval. A regulatory regime for insurance prices in which an insurer must receive approval from the state regulator before putting rates into effect

private insurers. Insurers that write workers' compensation coverage other than the State Compensation Insurance Fund. Private insurers may be publicly or privately held.

producer. A broker or agent from whom an insurer receives applications for insurance coverage

pure premium. Expected cost to an insurer of indemnity payments and allocated and unallocated loss-adjustment expenses. Pure premium does not include overhead costs or profit loadings. Also called *loss costs*. See also *allocated loss-adjustment expenses*, *unallocated loss-adjustment expenses*.

quota-share reinsurance. A form of proportional reinsurance in which a defined percentage of all risks held by the insurer in a specific line of business is reinsured

rating agency. Private company that provides ratings on an insurer's financial strength and related financial information. Leaders in the industry include A. M. Best Company, Moody's Investors Service, and Standard and Poor's.

reserves. The liability established to reflect the estimated cost of the unpaid claims and claim expenses that the insurer will ultimately be required to pay

reinsurance. An arrangement in which an insurance company (the reinsurer) agrees to indemnify another insurance or reinsurance company (the ceding com-

pany) against all or a portion of the insurance or reinsurance risk underwritten by the ceding company under one or more policies. See also *cede*, *cedant*.

reinsurance attachment point. The amount of loss at which reinsurance reimbursement begins to apply

reinsurance recoverable. The amount of an insurer's incurred losses that will be paid (or is expected to be paid) by reinsurers

reinsurance retention. The net amount of risk the ceding company keeps for its own account

retrocessional market. The market in which reinsurers transfer risks to other reinsurers

reserve development. Losses for which estimations of ultimate incurred losses and allocated loss-adjustment expenses are proven inadequate or excessive. Increases or decreases in incurred losses as a result of reserve development are recognized in financial statements in the period of change. *Favorable development* (reserve redundancy) means that the original claim estimates were higher than subsequently determined. *Unfavorable development* (reserve deficiency) means that the original claim estimates were lower than subsequently determined.

runoff. The management of claims segregated from those of new policies. These claims are mostly commitments that correspond to old policies and that arise out of inactive or discontinued books of business or operations.

Solvency II. A revision of European Union insurance law, proposed by the European Commission, that is designed to improve consumer protection, modernize supervision, deepen market integration, and increase the international competitiveness of European insurers.

state of domicile. The state in which an insurer is organized

statutory accounting principles. Rules for insurance accounting codified by the National Association of Insurance Commissioners or as promulgated by a state of domicile as rules to be used in reporting an insurer's results to regulators. See also *state of domicile*.

schedule rating. Credits or debits that alter an insurance premium, intended to reflect changes in business and safety practices that may result in higher or lower claim costs of a particular employer

self-insured employer. Employers that do not purchase workers' compensation coverage from a private insurer or the State Compensation Insurance Fund but rather take responsibility for their own workers' compensation costs. Before it can self-insure, an employer must obtain permission from the California Department of Industrial Relations.

State Fund. State Compensation Insurance Fund

third-party administrator. A firm contracted by an insurer solely to manage claims

transaction-level data. Information on the individual medical and indemnity payments made on a claim

underwriting. The insurer's or reinsurer's process of reviewing applications submitted for insurance coverage, determining whether to insure all or part of the coverage requested, and setting the premium

underwriting profit. The difference between net premiums earned and the sum of claim expenses and underwriting expenses. Because underwriting profit excludes investment income, it is a commonly used measure of the underwriting performance of a property and casualty insurance company. A more complete measure of overall insurer profitability would include investment income.

underreserving. Posting of reserves that are insufficient to cover the claim costs expected at that time

Abbreviations

AB	assembly bill
AICPCU	American Institute for Chartered Property Casualty Underwriters
AME	agreed medical evaluator
CCR	California Code of Regulations
CDI	California Department of Insurance
CHSWC	Commission on Health and Safety and Workers' Compensation
CIGA	California Insurance Guarantee Association
CLO	Conservation and Liquidation Office
CWCI	California Workers' Compensation Institute
DIR	California Department of Industrial Relations
EU	European Union
IAIABC	International Association of Industrial Accident Boards and Commissions
ICIS	Industry Claims Information System
IRIS	Insurance Regulatory Information System
IRMI	International Risk Management Institute
LPT	loss-portfolio transfer
MGA	managing general agent
NAIC	National Association of Insurance Commissioners
NCCI	National Council on Compensation Insurance
QME	qualified medical evaluator

RBC	risk-based capital
SB	senate bill
SEC	Securities and Exchange Commission
TPA	third-party administrator
WCAB	Workers' Compensation Appeals Board
WCIRB	Workers' Compensation Insurance Rating Bureau
WCIS	Workers' Compensation Information System

CHAPTER ONE

Introduction

The California workers' compensation insurance market entered a new era in 1995, when insurers were allowed far greater flexibility in setting rates.[1] For reasons that go beyond price deregulation, the market has been very volatile since. As shown in Figure 1.1, pretax underwriting profit in the California market dropped dramatically in the second half of the 1990s and far more than in the workers' compensation market nationwide, after remaining in a relatively narrow band between 1979 and 1992.[2] Thirty-one of the roughly 250 insurers that wrote workers' compensation coverage in the state, including some of the largest market participants, became insolvent.[3] The market share of the state-chartered State Compensation Insurance Fund (State Fund) rose to 53 percent of workers' compensation premiums written in 2003, and the private market appeared near collapse. In response to legislative reforms between 2002 and 2004, the private insurance market then rapidly rebounded, with underwriting profits reaching historic highs and the State Fund's market share retreating to a more typical 20 percent by 2006. Recently, however, low pricing and rising claim costs have led some to fear a return to the dire conditions of the first part of the decade.

The price paid for workers' compensation insurance by California's employers has been volatile since 1995 as well, continuing the considerable variation that occurred in earlier years. As reflected in Figure 1.2, average premium per $100 of

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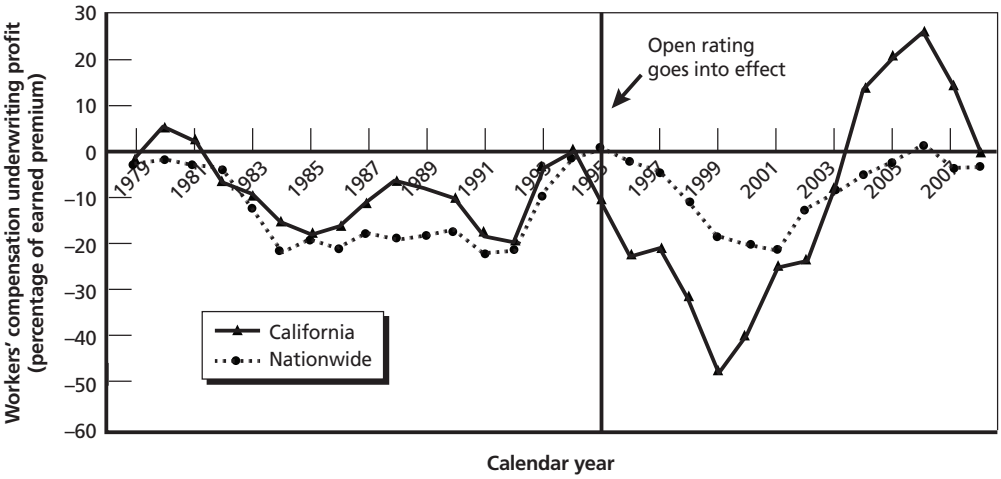
[1] The bill changing the approach to price regulation in the workers' compensation market (Senate Bill [SB] 30) was signed into law by the governor on July 27, 1993, and its provisions went into effect on January 1, 1995.

[2] Pretax underwriting profit is earned premium less insurer losses, expenses, and policyholder dividends. It does not consider federal taxes nor the investment returns that insurers make on claim reserves and policyholder surplus. Thus, an insurer may be profitable overall even if it is losing money on its underwriting operations. Estimates by the National Association of Insurance Commissioners (NAIC) indicate that, when investment returns are included, writing California workers' compensation insurance was still considerably unprofitable between 1998 and 2002, with losses ranging from 8 to 23 percent of earned premium (see Appendix A for more detail).

[3] An insurer becomes insolvent when its assets are not adequate to cover the expected ultimate costs of the claims submitted by its policyholders and other liabilities.

Figure 1.1
Pretax Underwriting Profit in the California Workers' Compensation Market and Nationwide



SOURCES: California numbers from WCIRB (1993, Section V, Appendix A, Attachment 1; 2008c, Exhibit 18.1; 2009e, Exhibit 18.1). Nationwide numbers from Burton (2008, p. 25) and A. M. Best Company (2009).

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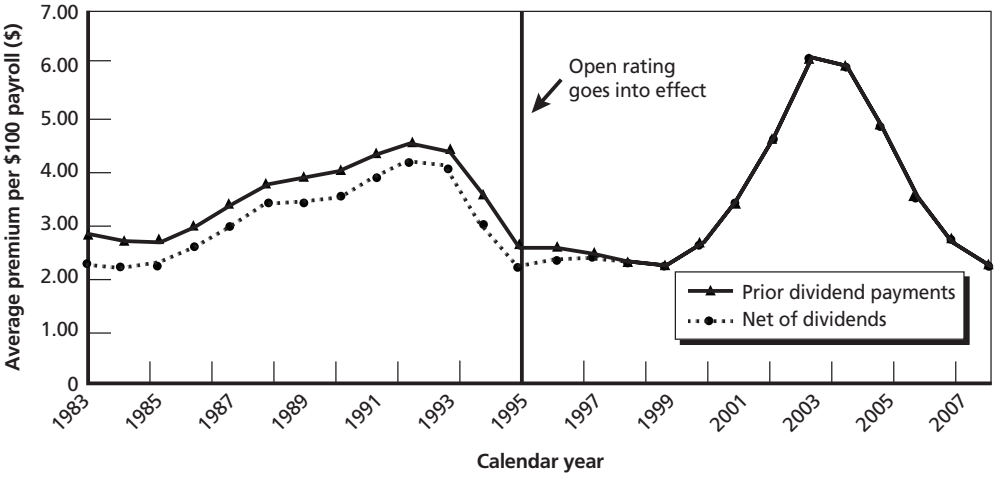
Figure 1.2
Average Workers' Compensation Premium in California, per $100 of Payroll



SOURCES: WCIRB (1993, Section V, Appendix A, Attachment 1; 2001, Exhibit 2; 2004, Exhibit 2; 2008b, Exhibit 2; 2008c, Exhibit 18.1).

RAND *MG949-1.2*

payroll, net of policyholder dividends, rose by 81 percent between 1983 and 1993 before falling 46 percent between 1993 and 1995. And, since 1995, average pre-

mium per $100 of payroll has varied by nearly a factor of three.[4] Such variability makes it difficult for businesses to plan and makes California a less attractive place to do business.

The insurer insolvencies that followed the move to open rating in 1995 were also costly to the state's employers, injured workers, and California residents more generally. Employers are projected to be assessed $4.9 billion to cover the claim costs of the insolvent insurers (CIGA, 2009). These assessments add to the costs of doing business in the state and are levied regardless of whether the insurer from which the employer bought coverage became insolvent. Insolvencies can delay benefits to injured workers (Hays Companies, 2003, p. 72) and can create additional administrative burdens for employers. Residents are affected because workers' compensation costs may discourage employers from locating in the state.

Purpose of This Study

This monograph identifies and examines the different factors that contributed to market volatility and the large number of insolvencies following price deregulation. It also examines the regulatory system that oversees the workers' compensation market and how the California Department of Insurance (CDI) responded to the market turmoil that followed the move to open rating.

Based on the findings, recommendations are made that aim to reduce the volatility of the market and the frequency of insolvencies while realizing the benefits of a competitive market. They address the regulatory tools and procedures used by the CDI and the incentives facing the various players in the market, including insurers, reinsurers, the State Fund, managing general agents (MGAs), actuaries, and employers. They also target the institutions and mechanisms that have been set up to project claim costs.

Organization of the Monograph

Chapter Two provides some background on the workers' compensation market, describes the number and size of insurers that went insolvent, and examines how the composition of the California market has changed over time. It also presents a set of goals for a well-functioning workers' compensation market and describes our research methods.

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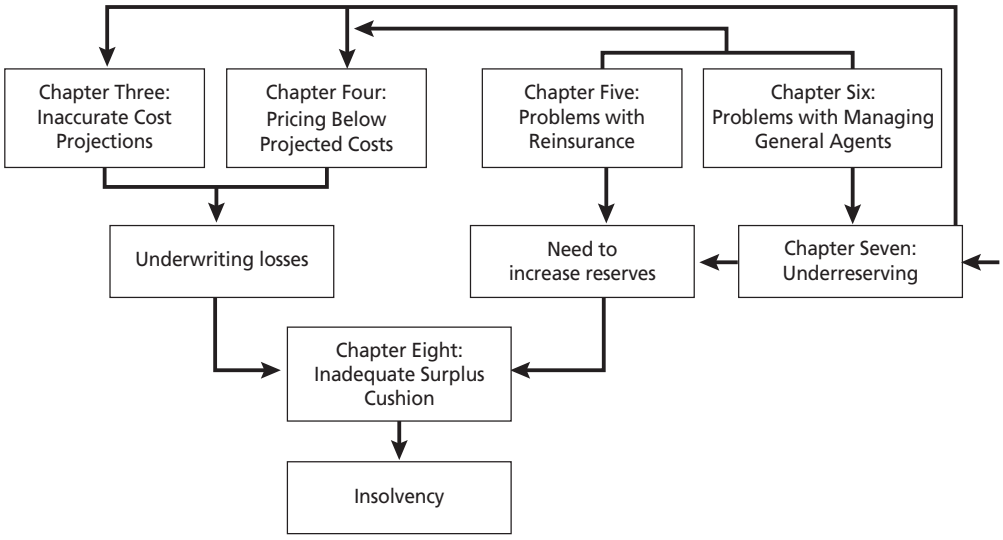
[4] Prior to price deregulation, insurers commonly competed in part by paying dividends to policyholders after the end of the policy period. Thus, the effective price paid by employers is the premium net of dividends.

Based on our analysis, we identified six key factors that contributed to the insolvencies and volatility in the past 15 years, and our analysis of and recommendations for reducing the pernicious effects of each factor are presented in Chapters Three through Eight. Figure 1.3 provides an overview of how the six chapters fit together.

For reasons that had little to do with the price deregulation, the cost of workers' compensation claims increased rapidly following the move to open rating. Delayed recognition of this increase was an important contributor to the insolvencies and the poor performance of the industry through the early 2000s. Chapter Three compares the cost projections of the CDI and of the Workers' Compensation Insurance Rating Board (WCIRB), the state-licensed statistical agency, with what the costs eventually turned out to be. It identifies the reasons that the WCIRB and CDI projections turned out to be so far off and makes recommendations for how they might be improved.

Chapter Four examines the pricing practices of insurers following open rating, given what was known at that time about expected claim costs (that is, conditional on the projections discussed in Chapter Three). The chapter explores the reasons that insurers priced considerably below expected claim costs and the response of the CDI to the low pricing. Because the State Fund became such a large player in the market in the first half of the 2000s, particular attention is paid to its pricing and competitive practices following the move to open rating. The chapter con-

Figure 1.3
Organization of the Monograph



RAND *MG949-1.3*

cludes with recommendations for reducing the likelihood that insurers will again engage in destructive pricing competition that threatens insurer solvency.

Chapters Five and Six address factors that both contributed to pricing below expected costs and resulted in the need to increase reserves. The proximate cause of most insolvencies is the need to increase the reserves that insurers must set aside to pay claim costs. If an insurer either has insufficient policyholder surplus to cover the increase in reserves or is unable to raise additional capital, the insurer will become insolvent. Underwriting losses drain surplus, reducing the insurer's ability to absorb reserve increases. As discussed in Chapter Five, particular types of reinsurance arrangements arose during the second half the 1990s that enabled insurers to price far below the expected costs of the policies. The reinsurance contracts eventually fell apart, leaving some insurers with responsibility for a much greater share of claim costs and the need to increase reserves. Likewise, arrangements with MGAs that had little stake in the profitability of the claims they wrote contributed to low prices.[5] As discussed in Chapter Six, reinsurance deals set up by MGAs faltered, forcing insurers to increase reserves, and MGAs and third-party administrators (TPAs) had incentives to only partially reserve claims to make their interim performance appear attractive. Recommendations are presented in these two chapters to mitigate the potential downsides of reinsurance and MGA agreements while maintaining their benefits.

Insurance regulators have put in place requirements to deter and detect underreserving by insurers. The CDI conducts regular financial exams to assess reserve levels, and, since the 1990s, insurers have been required to annually submit an opinion from a qualified actuary attesting that their reserves are adequate. In spite of the required actuarial opinions, CDI financial examinations uncovered significant underreserving at several workers' compensation insurers that eventually became insolvent. Chapter Seven examines reasons that the system of private oversight broke down and suggests ways in which the system might be improved.

Insurers hold policyholder surplus to provide a cushion against adverse events that can either increase their liabilities or reduce their assets. Such a cushion is particularly important for workers' compensation insurers because claims are paid out over a long period of time and costs can change unexpectedly. The amount of policyholder surplus held by the insurers that ultimately became insolvent clearly did not provide an adequate cushion for the adverse events that led up to their insolvencies. Requirements on the amount of policyholder surplus that insurers must hold have been strengthened since the major insolvencies following open rating. Chapter Eight assesses how the risk-based capital (RBC) system in place today would have performed had it been in force during the period lead-

[5] An MGA is a firm that is empowered by an insurance company to produce, underwrite, and commit an insurer to a policy. The term can also apply to individuals.

ing up to the insolvencies. It concludes with a number of recommendations for changes to the system that should be considered.

The final chapter of the monograph, Chapter Nine, offers overall observations on the reasons for the insolvencies and the increased volatility following the move to open rating. It pulls together the recommendations developed in previous chapters and identifies common themes that run through them.

CHAPTER TWO

Background and Research Methods

In this chapter, we first provide an overview of the California workers' compensation insurance market. The overview covers the size of the market, the number of insurers, the proportion of the market written by insurers that specialize in California workers' compensation, and the role of the State Fund. After briefly describing the regulatory systems for pricing before and since 1995, we turn to the insurer insolvencies following the move to open rating. The conservation and liquidation process is reviewed and the insurers that became insolvent described. The last part of the chapter covers our research methods, concluding with a set of goals for the workers' compensation market that motivate the recommendations for change in subsequent chapters.

Background on Workers' Compensation Insurance

Workers' compensation was introduced by many states in the early decades of the 20th century. The prior, common-law approach required employees to litigate against employers to receive compensation for workplace injury. Conceptually, the goal of the new insurance coverage was to replace this costly and problematic approach with a no-fault system intended to ensure prompt and equitable compensation for medical costs and lost income. In return for these payments, most employees lost their right to sue their employers.[1] California introduced its workers' compensation program through the Boynton Act in 1913, making the purchase of workers' compensation insurance compulsory for most employers. Many other states enacted similar laws, but no two states have exactly the same laws.

Workers' compensation benefits are set by statute, as interpreted by the courts. Several aspects of the benefit structure create challenges for workers' compensation

[1] The federal government has enacted several important compensation laws that, in some instances, permit employees to sue their employers in federal courts for workplace injuries. One notable example is the Federal Employers' Liability Act, enacted in 1908 (35 Stat. 65). This law allows certain eligible railroad employees the right to sue employers and limits the defenses available to the employers.

insurers as they attempt to price workers' compensation policies and set up reserves to cover claim costs.

- For any given loss reported by an injured employee, workers' compensation insurers are obligated to pay four basic types of benefits: medical, disability, rehabilitation, and death. The latter three types of benefits are referred to as *indemnity benefits*.[2] Medical and indemnity benefits can extend over many decades, particularly for an employee who was young at the time of injury. Of all the forms of property and casualty insurance, none has a longer tail than workers' compensation.[3]
- The medical insurance coverage required by workers' compensation laws is very broad, with none of the copayments, deductibles, or annual policy limits common to normal health insurance. Since the early 1980s, the percentage of total payments (medical plus indemnity) that medical payments make up has continuously increased from 46 percent in 1988 to an estimated 58 percent in 2008. The growth in medical costs has significantly outpaced general inflation rates since 1982, with the annual rate peaking at 13.5 percent in 2001.[4]
- During the life of a workers' compensation claim, the amount of benefits an insurer is required to pay can significantly increase due to any combination of judicial rulings, new statutes, or cost-of-living adjustments. In some cases, these benefit adjustments may apply retroactively to existing claims that are still open.

Overview of the California Workers' Compensation Insurance Market

In 2007, the California workers' compensation system covered more than 15 million employees working for more than 550,000 employers (CHSWC, 2008, p. 41; WCIRB, 2009d). With the exception of the state, all California employers must either obtain workers' compensation from insurers licensed by the CDI or obtain a certificate from the California Department of Industrial Relations to self-insure. According to recent estimates, 70 percent of injuries are suffered by employees at

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[2] Disability benefits are comprised of benefits for temporary disability and permanent disability.

[3] *Tail* refers to the distribution of payments over time on an insurance claim or policy. A long tail means that a substantial portion of payments occurs many years after a policy was written or a claim filed. For an average workers' compensation claim, 9 percent of the ultimate payments remain outstanding 13 years after filing of the claim. For the average auto insurer, by comparison, only 1 percent of the total payments are outstanding after one year (IRMI, 2008, Appendix F, p. 14).

[4] For example, medical-cost growth rose from about 5 percent in 1995 to 13.5 percent in 2001. During the same years, the Consumer Price Index was less than 4.6 percent in each year (NCCI, 2009).

insured employers, 26 percent by employees of self-insured employers, and 4 percent by state employees (CHSWC, 2008, p. 41).[5] This monograph addresses the insured part of the system.

Table 2.1 provides an overview of the size of the California workers' compensation market (excluding self-insureds) and the number of insurers writing workers' compensation in the state. Between 1995 and 2008, the total premium written annually ranged between $4.6 billion and $16.1 billion. For comparison, workers' compensation premium written in the nation as a whole totaled $42.8 billion in 2008 (A. M. Best Company, 2009, p. 388). A large number of insurers and insurance groups provide coverage to employers in the state. The number of companies has declined gradually in the past 15 years but still remains over 200. Insurance

Table 2.1
Size of the California Workers' Compensation Market

Year	Premium Written ($ billions)	Writers of Workers' Compensation Coverage	
		Insurance Companies	Insurance Groups
1995	5.1	238	104
1996	5.0	234	104
1997	5.3	241	106
1998	5.5	249	101
1999	5.7	246	95
2000	6.5	244	96
2001	8.6	235	91
2002	11.0	230	90
2003	14.9	225	87
2004	16.3	213	89
2005	15.2	210	86
2006	11.2	204	81
2007	8.8	207	84
2008	7.1	207	85

SOURCES: CDI (1996a, 1997, 1998, 1999, 2000a, 2001a, 2002, 2003a, 2004a, 2005, 2006, 2007a, 2008, 2009c); WCIRB (2009a, Exhibit 1).

[5] Less than 1 percent of the employers in California are self-insured (Neumark, 2005, p. 3), but these are many of the largest employers in the state. The 550,000 estimate of the number of employers from the WCIRB does not include self-insured employers, whereas the 15-million estimate of the number of employees covered by the workers' compensation system does.

companies are frequently members of a large insurance group that retains a controlling interest in the member companies. As shown in the rightmost column of Table 2.1, 85 separate groups wrote workers' compensation coverage in 2008.

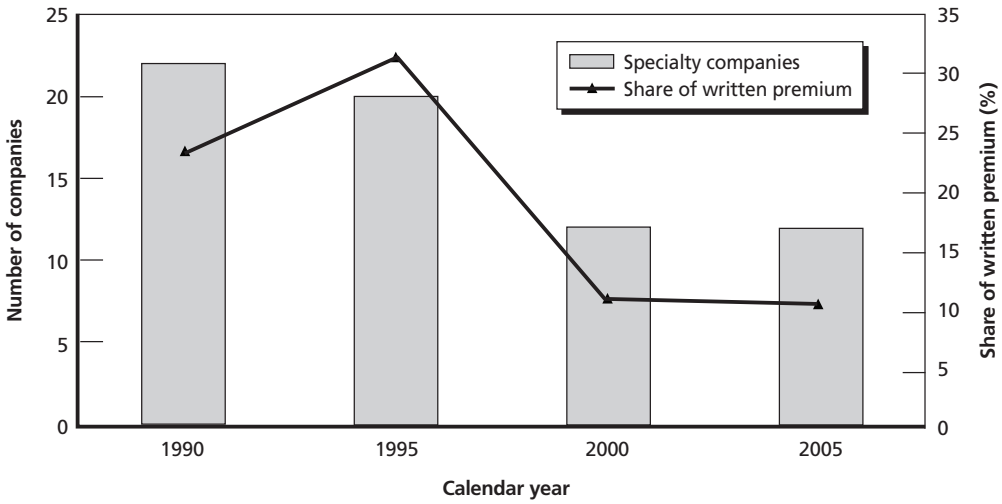
While a sizable number of insurers provide workers' compensation coverage, the largest insurers account for a substantial share of the market. In 2000, the ten largest insurance groups accounted for 68 percent of premium written (CDI, 2001a). The State Fund is by far the largest provider of California workers' compensation insurance. As further discussed in Chapter Four, the State Fund is a state-chartered, nonprofit insurer that serves as the insurer of last resort for employers that are not able to find coverage elsewhere (meaning that the State Fund cannot deny an employer insurance) and competes with other insurers in the marketplace. In 2000, the State Fund provided coverage to 248,000 of the 564,000 employers (43 percent) that bought coverage in the state (CDI, 2004b; WCIRB, 2009c). The State Fund writes coverage primarily for smaller businesses. In 2000, 80 percent of State Fund policies were with employers that paid less than $10,000 in premium, and 54 percent were with employers that paid $2,500 or less (CDI, 2004b, p. 13). The State Fund's share of premium written was 27 percent in 2000.

Prior to open rating, companies that specialized in the California workers' compensation market wrote a considerable share of the premium. We define a *specialty workers' compensation company* as an insurer (other than the State Fund) whose premium from California workers' compensation policies accounts for 80 percent or more of the total premium written by the company, across all lines and all states. As shown in Figure 2.1, 20 specialty insurers wrote 31 percent of premium in 1995. By 2005, the number of specialty insurers had dropped to 12 and their share of the market to 11 percent.

The Change in Price Regulation

Prior to 1995, workers' compensation insurance rates were governed by the minimum-rate law that was passed in 1915. Under this regime, insurers "could not issue, renew, or continue workers' compensation insurance at premium rates that were less than the rates approved by the Insurance Commissioner" (CHSWC, 2002, p. 3). The minimum rates were adopted by the insurance commissioner after public hearings based on changes proposed by the WCIRB. Insurers competed on the quality of their service as well as on dividends that were returned to policyholders subsequent to the policy period. Dividends could be paid only out of profits from California workers' compensation underwriting, which limited large insurers' ability to subsidize workers' compensation rates with income from other lines of business.

Figure 2.1
Number and Market Share of California Workers' Compensation Specialty Companies



SOURCE: CDI (2009c).
RAND *MG949-2.1*

The minimum-rate law was repealed in 1993 and replaced by an open-rating system that allowed insurers to set their own rates.[6] Open rating went into effect on January 1, 1995.[7] Although the CDI sets advisory pure premium rates based on analyses done by the WCIRB, insurers are not required to follow the advisory rates. As shown in Figure 1.2 in Chapter One, dividends have disappeared from the market. Insurers must file their rates with the CDI 30 days before they can go into effect. If the CDI raises no objections to the rate structure—for example, on the grounds that the rates are unfairly discriminatory—the rates go into effect as scheduled.[8]

Insurer Insolvencies Following Open Rating

This section first outlines the process for conserving and liquidating financially distressed insurers. It then provides background on the insolvencies following the switch to open rating.

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6 Open rating was established by SB 30, which was signed into law on July 27, 1993.

7 Thirty-two states adopted some form of open competition before California changed its approach in 1995 (Thomason, Schmidle, and Burton, 2001, pp. 305–306).

8 California is thus a file-and-use state for workers' compensation.

The Conservation and Liquidation Process

There are a number of steps that the CDI can take if it determines an insurer to be in financial distress. The CDI can place the company under regulatory supervision. Regulatory supervision is a consensual relationship between the CDI and the insurer. The CDI monitors the insurer closely and can request that the insurer change its operations in a particular way. For example, as we discuss later in this section, the CDI signed a letter agreement of regulatory oversight with the Fremont Insurance Group in 2000 that limited the amount of new business that the group could write. Such agreements are voluntary, and the insurer retains control of its operations.

If an insurer is not responsive to CDI requests or violates the terms of a voluntary agreement when under regulatory supervision, the CDI can apply to the Superior Court of California to place the company under conservation. An insurer does not necessarily need to be under regulatory supervision before it can be conserved. A company can be conserved for a number of reasons, including failure to provide books and records for examination, operating in a financially hazardous manner, and insolvency (see California Insurance Code §1011). When a company is conserved, the insurance commissioner takes over operation of the company and determines whether it can be rehabilitated and returned to private control.

If it appears that the company cannot be rehabilitated, the insurance commissioner, under order of a superior court, liquidates the company. The insurer's existing policies are canceled effective 30 days from the date of the liquidation order, and no new policies can be written or existing policies renewed. The insurance commissioner has charged the Conservation and Liquidation Office (CLO) with selling the company's assets and recovering reinsurance and other collectibles in order to pay off the company's debts and outstanding claims.[9]

The California Insurance Guarantee Association (CIGA) pays the outstanding claims of property-casualty insurers that have been liquidated.[10] In contrast to other lines of insurance, workers' compensation claims are paid without limit.[11] CIGA obtains the funds needed to pay claims from assessments on property-casualty insurers that, in turn, place surcharges on property-casualty policies issued in California, distributions by the CLO from the insolvent estates, statuto-

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[9] An insurer that is domiciled outside California follows similar procedures in its state of domicile.

[10] CIGA does not cover certain types of claims, such as claims on ocean marine and surety policies (California Insurance Code §1063).

[11] In other lines, CIGA can pay claims up to $500,000 (CIGA, undated).

rily required deposits the insolvent insurers have placed with the CDI, investment income, and loans or bonds, if necessary (CIGA, undated).[12]

Insurers Conserved and Liquidated Following Open Rating

Table 2.2 shows, by year, the number of insurance companies and insurance groups that wrote workers' compensation coverage in California that were conserved.[13] The bulk of conservations occurred between 2000 and 2003, and all the insurers

Table 2.2
Number and Market Share of Workers' Compensation Insurers and Groups Conserved

Year	Insurers Conserved	Groups Conserved	Market Share of Insurers That Eventually Failed (%)
1995	0	0	31
1996	0	0	28
1997	1	1	27
1998	0	0	23
1999	0	0	25
2000	14	4	16
2001	6	5	5
2002	6	4	0
2003	2	2	0
2004	0	0	0
2005	1	1	0
2006	1	1	0
2007	0	0	0
2008	0	0	0
Total	31	18	—

SOURCES: CDI (1996a, 1997, 1998, 1999, 2000a, 2001a, 2002, 2003a, 2004a, 2005, 2006, 2007a, 2008, 2009c); CIGA (2008).

[12] CIGA divides claims into three categories: automobile and homeowners, workers' compensation, and all other. Only workers' compensation policies are surcharged to cover CIGA workers' compensation assessments.

[13] Fremont was formally conserved on June 5, 2003, but a letter of agreement of regulatory oversight was signed by the CDI and Fremont on November 27, 2000. The agreement significantly limited Fremont's operations, and we therefore consider Fremont to have been effectively conserved at that time.

conserved eventually became insolvent and were liquidated. The rightmost column of the table shows the percentage of workers' compensation premium written by companies that eventually became insolvent. While not large in number compared with the total number of insurers and groups participating in the market, the insurers that eventually became insolvent accounted for between 23 and 31 percent of the market between 1995 and 1999. Their market share dropped quickly with the conservations and subsequent liquidations that began in 2000.

Table 2.3 lists, by date of conservation, the insurers that were conserved. The two rightmost columns show the losses incurred by CIGA for each insurer as of December 31, 2008, in total and net of distributions from the estates of the insolvent insurers and recovery of statutory deposits. Incurred losses include

Table 2.3
California Workers' Compensation Insurers That Have Been Conserved Since Open Rating Began

Insurance Group at Time of Conservation and Name of Companies Conserved (company NAIC number in parentheses)	State of Domicile	Date Conserved	% of Premium from Calif. Workers' Compensation in 1995	CIGA's Incurred Loss ($ millions)[a]	
				Total	Net[b]
1997					
Golden Eagle Insurance Company (10375)	Calif.	January 31, 1997	20–60	0	0
2000					
Superior National Insurance Group	Calif.	March 6, 2000	≥60	2,415	1,855
California Compensation Insurance Co. (22284) Combined Benefits Insurance Co. (10392) Commercial Compensation Casualty (10650) Superior National Insurance Co. (37753) Superior Pacific Insurance Co. (30570)					
Highlands Insurance Group	Ohio	March 30, 2000	<20	0	0
LMI Insurance Co. (23086)					
PRS Insurance Group	Ohio	November 6, 2000	<20	124	113
Credit General Indemnity (10297) Credit General Insurance (12912)					
Fremont Compensation Insurance Group	Calif.	November 27, 2000[c]	≥60	1,681	1,141
Employers First Insurance Co. (21059) Fremont Compensation Insurance Co. (37761) Fremont Indemnity Co. (11207) Fremont Indemnity Co. of the Northwest (21148) Fremont Industrial Indemnity Co. (21040) Fremont Pacific Co. (38725)					

Table 2.3—Continued

Insurance Group at Time of Conservation and Name of Companies Conserved (company NAIC number in parentheses)	State of Domicile	Date Conserved	% of Premium from Calif. Workers' Compensation in 1995	CIGA's Incurred Loss ($ millions)[a]	
				Total	Net[b]
2001					
Reliance Group Inc.	Pa.	January 23, 2001	<20	754	423
Reliance Insurance Co. (24457) Sable Insurance Co.[d] (10823)					
HIH America Group	Calif.	March 30, 2001	≥60	596	335
Great States Insurance Co. (33529) HIH America Compensation and Liability Insurance Co. (20656)					
PHICO Group Inc.	Pa.	August 16, 2001	<20	29	19
PHICO Insurance Co. (35718)					
Frontier Insurance Group	Calif.	September 7, 2001	<20	21	21
Frontier Pacific Insurance Co. (42250)					
2002					
Highlands Insurance Group	Calif.	February 22, 2002	20–60	99	76
Pacific National Insurance Co. (23930)					
Legion Insurance Group	Pa.	April 1, 2002	20–60	970	736
Legion Insurance Co. (24422) Villanova Insurance Co. (19577)					
Alistar Insurance Co. (10221)	Calif.	April 11, 2002	≥60	31	23
PAULA Financial Group	Calif.	April 26, 2002	≥60	229	124
PAULA Insurance Co.[e] (32115)					
Dodson Group	Mo.	December 19, 2002	20–60	35	17
Casualty Reciprocal Exchange (21237)					
2003					
Western Growers Insurance Co.[f] (29947)	Calif.	January 17, 2003	≥60	52	35
Home Insurance Companies	N.H.	March 5, 2003	<20	20	4
The Home Insurance Co.[g] (22527)					
2005					
Seibels Bruce Group	S.C.	March 21, 2005	<20	9	9
South Carolina Insurance Co. (24953)					

Table 2.3—Continued

Insurance Group at Time of Conservation and Name of Companies Conserved (company NAIC number in parentheses)	State of Domicile	Date Conserved	% of Premium from Calif. Workers' Compensation in 1995	CIGA's Incurred Loss ($ millions)[a]	
				Total	Net[b]
2006					
Municipal Mutual Insurance Co.[h] (10002)	Calif.	October 31, 2006	20–60	11	11
31 companies/18 groups				7,076	4,942

[a] Through December 31, 2008. Losses include payments for all claims, not just workers' compensation; however, losses on workers' compensation claims account for more than 90 percent of the total across all insurers.

[b] Figures are net of estate distributions and recovery of statutory deposits.

[c] Letter of agreement of regulatory oversight signed with the CDI on November 27, 2000; formally conserved on June 4, 2003.

[d] Sable was closely partnered with Reliance, and its failure was directly related to the collapse of Reliance.

[e] Voluntarily ceased writing workers' compensation in March 2002.

[f] Voluntarily ceased writing workers' compensation in the fourth quarter of 2000.

[g] Went into voluntary runoff in March 1997.

[h] Went into voluntary runoff in July 2003.

the amount paid on workers' compensation claims through 2008 and the estimate as of December 31, 2008, of the remaining costs of the claims. The incurred losses total $7.1 billion across all the conserved companies. CIGA has so far recovered roughly $2 billion from the estates and from the statutory deposits, leaving $4.9 billion in claim loss and loss-adjustment expenses that will be recovered primarily through insurer assessments. The numbers do not cover all of the expenses associated with the claims, as there are many unallocated expenses not accounted for. These expenses may include the costs incurred by CIGA to defend CIGA statutes and limits, as well as CIGA's administrative costs.

The insurers that were conserved tended to be those with more exposure to the California workers' compensation market. Table 2.4 classifies insurance groups according to the percentage of each group's overall premium that was earned from California workers' compensation policies. As shown in the table, 43 percent of the groups that wrote 60 percent or more of their premium in the California workers' compensation market failed. The failure rates were progressively lower for the other two exposure categories. Table 2.3 provides the percentage of premium written in the California workers' compensation market for each of the insurance groups that went insolvent. The failure of groups with less than 20 percent of premium revenue from California workers' compensation likely had little to do with conditions in the California market. The decline in the market share of California work-

Table 2.4
Percentage of Insurance Groups Conserved, by Degree of Exposure to the California Workers' Compensation Market

% of Premium from Calif. Workers' Compensation in 1995	No. of Insurance Groups in 1995	% of Groups That Were Conserved
<20	107	7
≥20 and <60	17	29
≥60	14	43

SOURCE: Project-staff analysis of market-share data provided by the CDI.

ers' compensation specialty companies in Figure 2.1 reflects the high failure rate of companies with a large percentage of their business in the California workers' compensation market.

The relationship between the probability of failure and exposure suggests first that the spike in insolvencies was due at least in part to developments in the California market. This inference is reinforced by the greater decline in underwriting profit in California than the nation as whole following open rating (see Figure 1.1 in Chapter One). Second, the relationship suggests that at least some of the insolvencies had little to do with California workers' compensation. While the adverse events in the California workers' compensation market may have contributed to the conservation of the six groups that wrote less than 20 percent of their business in the market, it is reasonable to expect that other factors were, in large part, to blame. For example, both PHICO and Frontier were specialists in medical-malpractice liability, not workers' compensation.

Research Approach

Our analysis of the California workers' compensation insurance market is based on interviews with a wide range of interested parties, detailed examination of 16 insurance groups, review of previous studies, and an analysis of data primarily from the WCIRB and the CDI on the overall market. In this section, we describe the groups that were selected for detailed analysis and the number and types of parties interviewed. We conclude this section with a discussion of reasonable goals for a well-functioning workers' compensation market. These goals motivate the recommendations that are made throughout this monograph to improve the performance of the workers' compensation market.

Insurers Selected for Detailed Study

To ensure that a diverse set of insurance groups were selected, groups writing workers' compensation in California were stratified according to the percentage of total premium from California workers' compensation policies and the amount of premium written in the California workers' compensation market. Groups that wrote less than 20 percent of their premium in the California workers' compensation market were excluded because it seemed reasonable to expect that their financial problems were not primarily due to California workers' compensation. Two insurers that eventually became insolvent and two insurers that remained solvent were randomly selected from each of the resulting four strata (see Table 2.5).

Annual statements, CDI financial exams, reinsurance contracts, and reports from A. M. Best Company were collected for the selected insurance groups. Data were also obtained from the WCIRB on the premiums charged by each insurer relative to the modified pure premium rate.[14] Because it plays such a large role in the market, similar information was collected on the State Fund.

Interviews

A wide range of interested parties was interviewed for the study. As shown in Table 2.6, 58 people were interviewed, representing 29 different organizations. We were successful in interviewing senior management at six of the eight solvent insurers selected for the study. Repeated efforts were made to interview management of the companies that went insolvent. In some cases, we were unable to locate senior management of the defunct companies; in others, former managers were unwill-

Table 2.5
Insurers Selected for Detailed Study

% of Premium from Calif. Workers' Compensation in 1995	Direct Written Premium in Calif. Workers' Compensation in 1995			
	<$30 Million		≥$30 Million	
	Insolvent Insurers	Solvent Insurers	Insolvent Insurers	Solvent Insurers
≥20 and <60	Casualty Reciprocal Exchange Municipal Mutual Insurance Co.	Majestic Insurance Co. ULLICO Group	Golden Eagle Insurance Co. Legion Insurance Group	Argonaut Group Republic Indemnity
≥60	PAULA Insurance Company Western Growers Insurance Co.	Springfield Insurance Co. Williamsburg National Insurance Co.	Fremont Compensation Insurance Group Superior National Group	Zenith National Insurance Group California Indemnity Insurance Group

[14] Pure premium reflects expected indemnity and medical costs as well as loss-adjustment expenses. Modified pure premium adjusts the pure premium rate up or down using an employer's experience rating.

Table 2.6
People Interviewed, by Category

Category	People Interviewed	Insurance Groups or Organizations Represented
Selected solvent insurers	9	6
Selected insolvent insurers	4	4
Other insurers	7	5
Insurance associations	4	3
State Fund	2	1
Reinsurance associations	3	1
Insurance brokers	1	1
Actuaries	1	1
CDI	18	1
CLO	3	1
CIGA	2	1
DIR	1	1
Others	3	3
Total	58	29

NOTE: DIR = California Department of Industrial Relations.

ing to be interviewed because of ongoing litigation or other concerns. Ultimately, former managers at four of the selected insolvent companies were interviewed.

The 18 staff interviewed at the CDI represented different disciplines and responsibilities within the department. Interviews were conducted in the Rate Regulation Branch, the Market Conduct Division of the Consumer Services and Market Conduct Branch, and the Legal Branch. In the Financial Surveillance Branch, interviews were conducted in the Field Examinations Division, the Financial Analysis Division, and the Premium Tax Audit and Troubled Companies Division. Among those interviewed in the Financial Analysis Division were analysts who followed many of the companies in the 16 groups selected for detailed analysis.

Interviewers were conducted on a confidential basis and lasted anywhere from 30 minutes to more than two hours. Interviews were typically performed in person, although some were done by phone. Participants were often interviewed individually, although, frequently, multiple interviewees were present at the same interview. With few exceptions, interviews were attended by two or three project staff. Interviews were conducted using an open-ended interview protocol that was tailored

to the particular expertise of the interviewee. The interviews covered the reasons for the insolvencies following the move to open rating and recommendations for changes in regulatory and other practices that would improve the functioning of the market. The interviews were conducted between July 2008 and June 2009.

Previous Reports on the California Market Following Open Rating

This study follows on two large studies of the California workers' compensation market that were conducted at the request of state agencies in the wake of the insolvencies that shook the market between 1999 and 2003. The Hays Companies produced a draft report in September 2003 at the request of the Commission on Health and Safety and Workers' Compensation (CHSWC). The report found the California workers' compensation system in crisis and offered analysis and recommendations in eight areas: insurer pricing, the drivers of claim costs, solvency oversight, administrative and claim regulatory practices, the State Fund, CIGA, self-insurance and other market challenges, and reinsurance. Overall, it made 74 recommendations to improve the system.

A study by Bickmore Risk Services (2006) for the DIR Division of Workers' Compensation projected the savings in benefit costs that resulted from the 2002 to 2004 reforms enacted by the California state legislature. It also assessed the extent to which cost savings were reflected in the workers' compensation rates and the effects of the reforms on policyholder surplus and the competitiveness of the California marketplace. In addition, the report analyzed the adequacy and accuracy of WCIRB-proposed rates and CDI advisory rates. The report contained a modest number of recommendations for improving the performance of the system.

Our analysis draws on these studies, and, in the following chapters, we note where our findings and recommendations differ from or are consistent with those in these studies.

Approach to Developing Recommendations

Based on findings on what happened in the years following the advent of open rating and why, we develop recommendations aimed at improving the functioning of the workers' compensation insurance market. These recommendations are guided by the following goals for the market:[15]

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[15] These goals draw on goals enumerated by the Workers' Compensation Rate Study Commission, which, in turn, follow the goals set out in the 1989 legislation establishing the commission. The commission stated that California workers' compensation system should provide (1) "secure, appropriate, and expeditious" claim servicing, implying that insurers must be able to provide benefits (i.e., are solvent); (2) appropriate financial incentives for workplace safety; (3) fair distribution of costs to insured employers, meaning that the premiums should vary according to the amount of risk in the workplace; (4) coverage that is available to all employers; (5) reasonable certainty for employers regarding workers' compensation rates from year to year—that is, a stable, predictable market; and (6) a reasonable rate of return to employers (Workers' Compensation Rate Study Commission, 1992, pp. I-3.0-3–I-3.0-6).

1. *Coverage should be available to all businesses.* Workers' compensation is a state-mandated benefit program, and, as such, it is appropriate that all employers be provided with a way to comply with the requirements.
2. *Workers' compensation insurance prices should reflect the cost of providing the required benefits.* Prices should not be excessive, nor should they should be inadequate. Costs that are too high or too low do not provide employers with the appropriate incentives to improve workplace safety. Prices that are discriminatory do not reflect the difference in costs across different types of risks.
3. *The market should encourage innovation.* Innovation can result in better loss-prevention programs, avoidance of unnecessary care, and programs that result in more-rapid recovery and return to work. Innovation can also increase the speed and efficiency with which benefits are delivered.
4. *Insurer liquidations and insolvencies should be rare.* Insolvencies mean that an insurer has broken its promise to cover injuries that occur when its policies are in effect and, as discussed in Chapter One, impose costs on employers, injured workers, and taxpayers. Insolvencies often mean that an insurer is not charging enough for its product, which puts pressure on other insurers to inappropriately reduce their prices. While infrequent insolvencies is a sensible goal, zero insolvencies probably is not. The cost of reducing the chance of insolvency to near zero may be too large.
5. *The market should not be overly volatile.* Large swings in workers' compensation prices make it difficult for businesses to plan. As discussed in the following chapter, large variability in benefit levels makes it difficult to project costs and appropriately price policies. Large swings in insurer profits can threaten solvency and reduce the number of insurers willing to write in the California market.

CHAPTER THREE

Inaccurate Cost Projections

Delayed recognition of the rapid increase in claim costs following the move to open rating was an important factor behind the insolvencies.[1] Without accurate estimates of expected future claim costs, insurers tended to price policies too low and thus collect insufficient revenue to cover future claim payments.

Most workers' compensation insurers base the rates they file with the CDI at least in part on the advisory pure premium rates approved by the CDI. The WCIRB files a set of proposed pure premium rates with the CDI every 6 or 12 months. Based on these rates, public hearings, and staff review, the CDI then adopts a set of advisory rates.

This chapter compares the proposed and approved pure premium rates with recent estimates of what the claim costs will actually turn out to be.[2] It then discusses some of the reasons that the projections were so far off and how the WCIRB has responded. Based on the findings, recommendations are made for how the accuracy of cost projections might be improved.

This chapter focuses on the WCIRB and the CDI, but our interviews underscored how difficult it was for all parties involved in the workers' compensation system to project the significant changes in claim costs that occurred during this period.

The Problem

Figure 3.1 compares the projected loss ratio with the actual loss ratio from 1980 through 2006.[3] A ratio higher than 1.0 means that the projected loss ratio is greater than what the actual loss ratio turned out to be. For example, the ratio of 1.2 in

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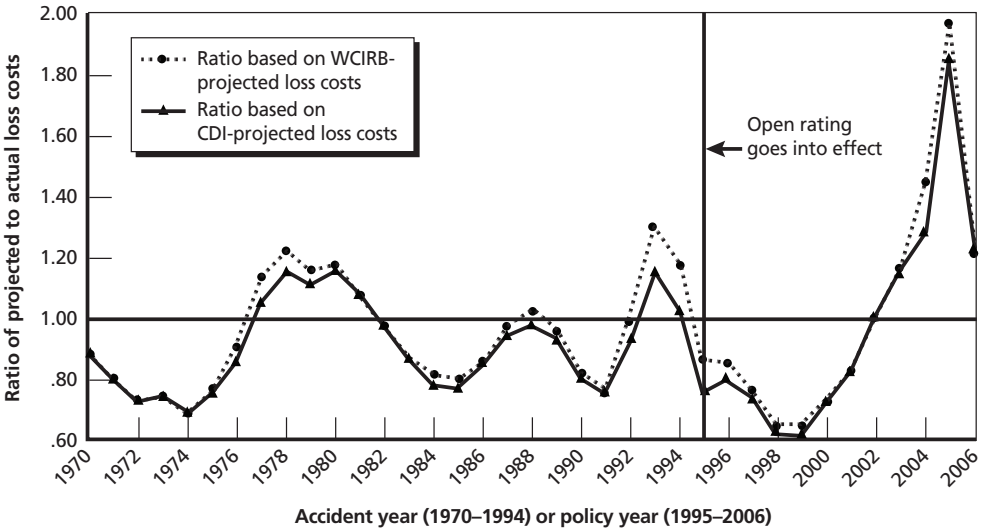
1 It should be noted that the increase in claim costs had little to do with price deregulation.

2 Payments for some workers' compensation claims are spread out over decades, so it is not yet known with certainty what the costs of the claims filed during this period will turn out to be. Proposed and approved pure premium rates are thus compared with recent estimates of ultimate claim costs.

3 Loss ratio = (medical costs + indemnity costs + loss adjustment expenses)/premium written.

Figure 3.1
Comparison of Losses Projected by the Workers' Compensation Insurance Rating Bureau and the California Department of Insurance to Actual Losses



SOURCE: Bellusci (2009c).
NOTE: Data for 1970–2004 are based on loss experience through December 2006; data for 2005 and 2006 are based on loss experience through June 2009.
RAND *MG949-3.1*

1980 means that the loss ratio projected in 1980 turned out to be 20 percent higher than the actual loss ratio for that accident year. Results are reported both for the loss ratios proposed by the WCIRB (when available) as well as for the loss ratios adopted by the CDI.

In the years following open rating, projections swung from being roughly 35 percent too low to nearly 100 percent too high. The projection errors following the move to open rating were somewhat larger than the largest underpredictions between 1970 and 1995 and substantially greater than the largest overprojections for the same period. With few exceptions, there is not a great deal of difference in the accuracy of the WCIRB projections and the CDI projections. The CDI projections tend to be somewhat below those of the WCIRB, which compounds the inaccuracy of the CDI projection when the WCIRB projection is already low. Overall, however, the organizations had similar difficulties in projecting claim costs following open rating.

The overpredictions in 2004, 2005, and 2006 were driven in part by the failure to anticipate a substantial drop in claims involving indemnity payments during these years.[4] As shown in Table 3.1, the WCIRB projected modest changes in

[4] Claim frequency is measured in terms of claims per 100 covered employees.

Table 3.1
Comparison of the Change in the Frequency of Indemnity Claims Predicted by the Workers' Compensation Insurance Rating Bureau and the Actual Change in Claim Frequency

Accident Year	Predicted Change (%)	Actual Change (%)	Difference (actual – predicted) (percentage points)
2001		–8.4	
2002		0.8	
2003	–1.4	–8.9	–7.5
2004	0.7	–16.0	–16.7
2005	1.4	–17.7	–19.1
2006	–2.8	–8.4	–5.6
2007	–3.0	–5.6	–2.6

SOURCE: Neuhauser (2008, p. 6).

claim frequency between 2004 and 2006, even though the actual declines turned out to be considerable.

Causes of the Poor Loss-Cost Projections

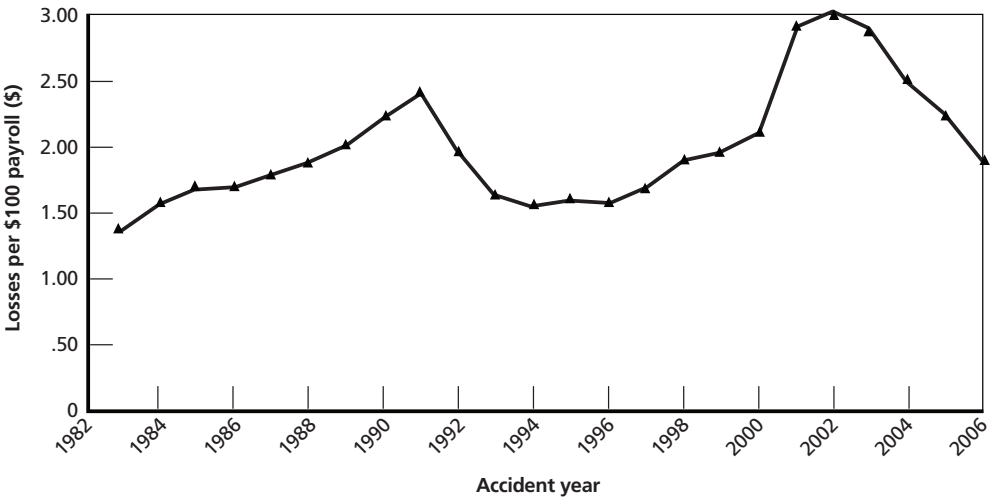
Repeated major change in the workers' compensation system was a primary driver of the under- and overprediction of workers' compensation loss costs. A slowdown in claim payouts and gaps in the data available to the WCIRB were also factors.

Volatility in Workers' Compensation Benefit Costs

Figure 3.2 illustrates the change in incurred medical and indemnity losses per $100 of payroll between 1983 and 2006. Through the 1980s, accident-year losses increased steadily, a pattern conducive to more-accurate projections. As shown in Figure 3.1, WCIRB and CDI projections varied gradually between 20 percent too high and too low during this period. Beginning in 1991, however, losses began a roller-coaster pattern. Losses dropped rapidly from the 1991 high, remained at about $1.50 per $100 payroll through 1996, and then rose gradually during the rest of the 1990s. In 2001, losses soared dramatically and then rapidly declined, returning to mid-1980s levels.

The substantial increase in claim costs between 1998 and 2002 followed the *Minniear* decision in September 1996 (*Minniear v. Mt. San Antonio Community College District*, 61 CCC 1055, 24 CWCR 261). In that decision, the Workers' Compensation Appeals Board expanded the presumption of correctness provided

Figure 3.2
Incurred Medical and Indemnity Losses per $100 Payroll, by Accident Year



SOURCES: WCIRB (2008d, Part A, Section B, Appendix A, Exhibit 1; 2009c).
RAND *MG949-3.2*

to the primary treating physician for medical treatment decisions. Legislation had been passed in 1993 that provided a rebuttable presumption of correctness to the treating physician in matters concerning the degree of permanent disability. The *Minniear* decision held that the presumption applied to disputes over medical treatment decisions as well as to permanent disability. As a result, it became very difficult for employers and insurers to contest medical decisions made by the primary treating physician. As Neuhauser reported in 2002,

> Numerous stakeholders, particularly employers and insurers, . . . contend that the statute and case laws have severely restricted their ability to control inappropriate and excessive treatment by making the application of reasonable utilization review impractical for service dates after *Minniear*. (Neuhauser, 2002, p. 9)

The *Minniear* decision reversed what many analysts thought would be a continuing decline in claim costs. Many expected the 1993 reforms related to the rebuttable presumption to reduce costs, not eventually to increase them. Further, claim frequency was falling rapidly in the early part of the 1990s in part due to antifraud efforts during that time and the elimination of stress claims brought by former employees.[5]

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[5] Claim frequency declined 12.1 percent in 1992 (from the previous year), 21.2 percent in 1993, 6.7 percent in 1994, and 2.8 percent in 1995 (WCIRB, 2009a, Exhibit 7). See Neumark (2005) for additional discussion of the reasons behind the run-up in costs.

The substantial decline in costs after 2002 followed a series of bills that the legislature enacted, partly in response to the run-up in costs following *Minniear*, between 2002 and 2004.[6] The series of reforms repealed the treating-physician presumption, adopted a medical-fee schedule, required use of medical utilization guidelines consistent with nationally recognized standards for medical care, and expanded the authority of medical-provider networks by extending a network's ability to control medical care from the first 30 days following an injury through the life of the claim (Swedlow, 2008).[7]

While some types of changes in the workers' compensation system are relatively straightforward to project, such as changes in weekly benefit rates, others are extremely difficult to evaluate. According to many of those interviewed, it was several years before the impact of the *Minniear* decision became apparent. It took time for attorneys and doctors to understand the implications of the decision and to adjust their behavior accordingly. It then took time for the consequences of behavioral changes to show up in loss-cost data. Similarly, following the 2002 to 2004 reforms, it took time to understand how the changes were going to be implemented through regulations issued by the DIR Division of Workers' Compensation; how courts were going to interpret the statutes and regulations; and how attorneys, doctors, and other system participants were going to respond.

Slowdown in Claim Payouts

Compounding the problem was a slowdown in claim payment patterns. According to the WCIRB, 34 percent of ultimate medical losses were paid within 15 months of the date the policy was issued for accidents occurring in 1994. The percentage dropped to 23 percent for accident year 1997 and to only 16 percent for 2001 (Bellusci, 2009d). The stretching out of an already-long payment pattern was likely due to a number of factors, including the *Minniear* decision. After *Minniear*, treating physicians were able to prescribe more treatment extending over longer periods of time. Other factors, such as more-frequent disputes between insurers and applicants over appropriate care and increase in case loads among claim managers due to the longer treatment periods, may also have been to blame.

The slowdown in claim-payment patterns created challenges for claim cost–projection methodologies. Costs are projected based in part on payments observed during various periods following claim filing and then extrapolating to the ultimate claim costs.[8] Because the extrapolations are based on the percentage

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6 Assembly Bill (AB) 749 in 2002, AB 227 and SB 228 in 2003, and SB 899 in 2004.

7 For a detailed description of the provisions of these bills, see Bickmore Risk Services (2006, pp. I-13–I-25).

8 There are a number of different actuarial techniques for estimating ultimate loss costs and expenses. These techniques include those based on paid losses and incurred losses. Incurred losses include both the

of ultimate payments that occur in the various time periods, an unanticipated slowdown in claim payments can cause an underprojection of ultimate costs.

Gaps in Data Available to the Workers' Compensation Insurance Rating Bureau

Gaps in the data available to the WCIRB likely hampered its ability to anticipate the substantial cost increases following open rating.

First, while the WCIRB receives extensive policy-level data from workers' compensation insurers, it does not receive transaction-level data. Policy-level data include detailed information on the payments and incurred losses for each policy written by the insurer. However, they do not include data on individual medical payments that would, for example, allow the bureau to track changes in the number and type of visits. In 1997, many insurers did begin to provide such transaction-level data to the California Workers' Compensation Institute's (CWCI's) Industry Claims Information System (ICIS). CWCI is an insurance-industry association that does research on trends in workers' compensation utilization and costs, and it estimates that ICIS captures between 65 and 70 percent of the workers' compensation insurance market (excluding self-insured employers) (Nolan, 2009). CWCI analyzes changes in medical utilization using these data and, in the early 2000s, began examining particular issues using transaction-level data at the request of the WCIRB. According to accounts of senior staff at both the WCIRB and CWCI, this relationship works well and allows the WCIRB to look for early signs in changes in medical utilization and costs. However, these transaction-level analyses were not available to the WCIRB in the early years after the *Minniear* decision. While review of analyses based on transaction-level data would likely not have enabled the WCIRB to fully anticipate the rise in costs due to the *Minniear* decision, it may have helped it understand the implications of the decision for claim costs more quickly. What is more, the quality of WCIRB projections would likely be improved if WCIRB staff were able to direct assess the strengths and weaknesses of the transaction-level data, rather than review analyses done by CWCI.[9]

Second, large-deductible policies became increasingly popular during this period, compromising to some degree the quality and completeness of claim information reported to the WCIRB.[10] According to several of those interviewed for

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amounts paid on claims to date as well as the reserves that insurers have set aside for future medical, indemnity, and loss-adjustment costs. A payment slowdown can affect projections based on either method.

[9] When analyzing almost any large data set, the analyst needs to make many decisions about such issues as missing values, outliers, and inconsistencies across data fields. Working directly with the data allows the analyst to better understand the implications of different decisions and to make the ones most appropriate for the research question at hand. We are not making any comparison between the analytic prowess of the WCIRB and CWCI.

[10] Under a large-deductible policy, the policyholder is responsible for all claim costs until the cost of a claim reaches a certain level (typically $100,000). In principle, the insurer still makes all claim payments

this study, it was not uncommon for an employer with a large-deductible policy to deal directly with the TPA paying claims that came below the large-deductible threshold and for the employer to fail to report the claim promptly to the insurer. In such cases, the TPA might provide only incomplete data on the claim or report the data to the insurer with a considerable lag.[11] However, we were not able to find quantitative data on the magnitude of this problem. The WCIRB has generally not thought that data problems related to large-deductible policies are a big issue, although it recently noted significant differences in claim-reporting patterns, incurred loss-development patterns, and injury severity between large-deductible and non–large-deductible policies.[12] Incomplete data on claims brought under large-deductible policies may have had some negative impact on the accuracy of the WCIRB loss-cost projections in the years following the move to open rating, but more analysis is needed on this issue.

Finally, the WCIRB did not receive data from the CLO or CIGA regarding claim payments and incurred losses for insolvent insurers. The CLO is the state-

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under a large-deductible policy but then bills the policyholder for payments below the deductible. California allowed large-deductible policies starting in 1995. The prevalence of large-deductible policies in California rose gradually between 1995 and 1999, jumped in 2000, and has remained fairly constant since then. In 1995, large-deductible policies reduced insurer premium from what it would have been absent large-deductible policies by about 11 percent. The impact was significantly greater for those national insurers specializing in large, multistate accounts. The reduction had increased to 30 percent by 2000 (WCIRB, 2008b, Exhibit 1).

[11] An employer must report workplace injuries, other than those requiring only first aid, to the DIR Division of Labor Statistics and Research (California Labor Code §6409.1). Legislation was recently passed that requires the information to be sent to the Division of Workers' Compensation, but the regulations implementing the legislation have yet to be issued. In principle, the WCIRB could use this information to assess the extent of the reporting problem. However, according to WCIRB staff, such a cross-check has not been done, in part because the data have not been comprehensively entered into an accessible database. It should also be recognized that such a comparison would not be meaningful if employers, or the TPA working on their behalf, do not substantially comply with the requirements to report to the Department of Labor Statistics and Research. For more discussion of issues raised by large-deductible policies, see NAIC and the International Association of Industrial Accident Boards and Commissions (IAIABC) (2005) and IRMI (2002, pp. XI.P.1–XI.P.12).

[12] In a 2009 discussion of large-deductible policy issues, the WCIRB noted that annual reviews by its Actuarial Committee had

> generally found that . . . (b) claim patterns for experience written on a large deductible basis were generally fairly similar to the patterns of non-large deductible experience; and (c) the impact of excluding large deductible experience from the rate level calculation was not overly significant.

But based on the review of data through December 21, 2007, the WCIRB also found that "claim reporting patterns, incurred loss development patterns and incurred severities were significantly different for large deductible policies from those of other types of policies." Although the WCIRB noted that excluding the impact of excluding the large-deductible experience was very small, some members of the Actuarial Committee suggested that it might be appropriate to exclude the large-deductible data from the pure premium projections and to augment reporting requirements on large-deductible policies (Bellusci, 2009a).

chartered organization responsible for liquidating the estates of insolvent insurers, and CIGA is the state-chartered organization responsible for paying the claims on policies written by insurers that become insolvent. As discussed in Chapter Two, the insurers that ultimately became insolvent wrote more than one-quarter of premium during the years following open rating. The absence of information on such a substantial number of claims may also have had negative repercussions on the accuracy of WCIRB loss-cost projections following the 2002–2004 reforms.

Workers' Compensation Insurance Review Board Response to Substantial Projection Errors

Subsequent to the 2002–2004 reforms, WCIRB took a number of steps to review and improve its cost-projection and rate-making methodologies. In 2007, it formed a Claims Subcommittee under its Actuarial Committee. The Claims Subcommittee brings together claim experts from different insurers as well as others who are very familiar with recent changes in claim patterns. It is hoped that this subcommittee can help identify changes in medical and indemnity costs early on, without having to wait until the changes show up in the data that insurers submit to the WCIRB. In response to CDI concerns about the accuracy of its pure premium rate filings, the WCIRB also conducted an analysis of the accuracy of its filing. The evaluation period ran from 1995 through 2007, and the findings were submitted to the CDI in December 2007 (WCIRB, 2008a). In addition, the WCIRB retained Towers Perrin to conduct a thorough review of its rate-making methodologies in the fall of 2007, and the report was completed in July 2008. Towers Perrin found that, in many ways, the WCIRB was ahead of other organizations in its rate-making methodologies, but suggested a number of ways to make WCIRB methodologies more flexible and better able to respond to changing conditions. The WCIRB augmented its January 1, 2009, rate filing to reflect a number of the recommendations and has developed plans to address the longer-term recommendations (WCIRB, 2008e).

Finally, the WCIRB is developing plans to collect transaction-level data directly from insurers (Bellusci, 2009b). The envisioned database will cover a larger share of the workers' compensation market than the data collected by CWCI and will be collected in a more standardized format. It will also allow the WCIRB to evaluate for itself the capabilities and limitations of the data.

Recommendations for Improving the Reliability of Cost Projections

The delayed recognition of the increase in workers' compensation claim costs following open rating was one factor that led to turmoil in the workers' compensation insurance market and the subsequent failures of a substantial number of insurers. While cost projections will always be subject to error, in this section, we make recommendations that may help reduce the magnitude of such errors moving forward. First, we present recommendations aimed at making the system more predictable. Second, we offer recommendations that may help the WCIRB, the CDI, and insurers do a better job of projecting costs.

Making the Workers' Compensation System More Predictable

It is inherently difficult to project claim costs when the workers' compensation system is changing rapidly. It takes time to understand the impact of major changes on the behavior of the many players that participate in the system, and cost projections are prone to major error while these behavioral responses are only partially understood. The lack of predictability was repeatedly emphasized during our interviews as a key driver of the volatility in the workers' compensation insurance market following open rating. In the view of many, had the cost of providing coverage been better understood by insurers following open rating, there would have been less market instability and fewer insurer insolvencies.

Unfortunately, the potential for tremendous uncertainty in projecting claim costs remains. A new round of major change is facing the workers' compensation system today. The recent *Almaraz/Guzman* and *Ogilvie* decisions by the Workers' Compensation Appeals Board (*Ogilvie v. City and County of San Francisco*, 11 WCAB Rptr. 11,071, 2009); *Mario Almaraz v. Enviroserve/Joyce Guzman v. Milpitas Unified School District*, 11 WCAB Rptr. 11,067, 2009) may fundamentally change the impact of the 2002–2004 round of reforms.

It is not possible or even desirable to have a system in which there is little or no change. The legislature's authority to make changes in benefits and how the system operates cannot be restricted, and it is important for the legislature to make changes in response to poor system performance or feedback on the impact of previous reforms. However, there are a number of steps that might be taken to reduce the volatility in benefits.

Recommendation 1: Increase Clarity of Legislative Intent. For the issues addressed by the *Minniear* decision to even arise, there must have been some uncertainty about what the legislature intended when it passed the 1993 reforms pertaining to the presumption of the primary treating physician. The legislature can help reduce uncertainty about the impact of reforms by using unambiguous language when writing legislation and making clear statements about the intent and scope of the legislation. In crafting reforms, the legislature should also recognize that

changes that affect the more subjective aspects of the system, such as standard of proof, are much more difficult to evaluate than more-objective changes, such as limitations on the number of chiropractic visits. While it may be necessary to craft reforms that address the more subjective aspects of the system, the legislature should keep in mind the potential costs of such changes in terms of time needed for the courts and stakeholders to interpret the changes and the chance that changes will have consequences not envisioned by the legislature. Similarly, while the language that ultimately ends up in a bill is often the result of lengthy negotiations between different interest groups, the legislature should appreciate the potential for the potentially vague nature of compromise language to cause trouble down the road.

Recommendation 2: Expeditiously Release Guidance and Regulations on Issues When There Are Important Disagreements Among Stakeholders. A number of insurers interviewed believed that DIR could reduce uncertainty over the interpretation and impact of legislative reform by more expeditiously issuing regulations and guidance. For example, the 2004 reforms provided for the use of qualified medical evaluators (QMEs) and agreed medical evaluators (AMEs) in disputes over medical care, but the legislation did not specify what medical practice guidelines that AMEs and QMEs should follow.[13] It took five years for DIR to issue guidance on what guidelines should be followed, and, in the interim, there was a great deal of debate and controversy among insurers and the applicant bar about what guidelines were appropriate, creating ongoing uncertainty about the impact of the legislation. Prompt guidance or regulation can prevent disagreements from festering and disputes from going to court.[14]

Recommendation 3: Review the Performance of the Workers' Compensation Appeals Board System. A common complaint among insurers interviewed for the study was the inconsistency of decisions made by workers' compensation judges. Some claimed that plaintiffs' attorneys shop jurisdictions for the most sympathetic judge and that decisions are inconsistent across judges. There was also concern that workers' compensation judges did not carefully follow the law. Evaluating these allegations is beyond the scope of this study, but, given the role that the Workers' Compensation Appeals Board (WCAB) has played in introducing fundamental changes into the system, it is advisable to evaluate WCAB's performance. The evaluation should focus on the consistency of decisions across judges, as well as how closely judges follow the law.

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[13] See Bickmore Risk Services (2006, pp. I-22, III-31) for discussion of QMEs and AMEs.

[14] The federal Terrorism Risk Insurance Program provides a good example of an organization that regularly issues program guidance. See U.S. Department of the Treasury (2008).

Improving the Ability of the Workers' Compensation Insurance Rating Bureau and the California Department of Insurance to Project Costs

Even given success in making the workers' compensation system more predictable, uncertainty about the effects of legislation and court decisions will remain. The following recommendations attempt to improve the WCIRB's and the CDI's ability to project the changes in benefit costs.

Recommendation 4: Explore the Most Appropriate Way for the WCIRB to Take Advantage of Transaction-Level Data. There are a number of ways that the WCIRB might be able to access transaction-level data. For example, the WCIRB might proceed with current efforts to collect such data directly from insurers. Alternatively, it might be able to access the transaction-level information assembled by CWCI or to draw on the relatively new Workers' Compensation Information System (WCIS) being managed by DIR. Reliance on WCIS data would eliminate some duplicative reporting burdens. The advantages of alternative approaches should be evaluated.

Recommendation 5: Increase the Comprehensiveness of the Data Provided to the WCIRB. The cost and practicality of providing or improving the data available to the WCIRB should be examined for three types of claim payments: payments by CIGA on the claims of insolvent insurers, payments on claims by self-insured employers, and payments on claims brought under large-deductible policies. When a substantial number of claims remain outstanding following insolvency, as was the case for the insolvencies examined in this study, then information on CIGA claim payments would fill a sizable data gap. Roughly 25 percent of workplace injuries occur to employees of self-insured employers (CHSWC, 2008, p. 41). Access to the loss experience of these self-insured employers may also help the WCIRB improve the accuracy of its forecasts and should be explored. Given that large-deductible policies now account for a substantial share of the market, it is important to assess the quality of information provided to the WCIRB on these policies.

Recommendation 6: Fast-Track Analyses of the Impact of Important Legislation and Judicial Opinions. CHSWC and other groups have conducted analyses of important legislation and court decisions (see, for example, Neuhauser, 2002). Promptly commissioning such studies can help the WCIRB and the CDI better anticipate the effects of important changes in the system. WCAB decisions may be appealed and the ultimate outcome of a case uncertain. In such circumstances, it would be valuable to evaluate multiple scenarios that reflect the various plausible resolutions.

CHAPTER FOUR

Pricing Below Projected Costs

The pricing practices of workers' compensation insurers during the second half of the 1990s contributed to the rash of insolvencies that began in 2000. Insurers charged prices that were below the already low projections of loss costs, resulting in revenue that was not adequate to cover the ultimate cost of the claims.

This chapter reviews insurer pricing practices following open rating and then examines reasons for the practices. Because the State Fund became such a large player in the market, particular attention is paid to the State Fund's pricing and competitive practices during this period. The response of the CDI is then reviewed. The chapter concludes with recommendations for reducing the likelihood that insurers will again engage in destructive pricing competition that threatens insurer solvency.

The Problem

During the policy debates leading up to open rating, the potential for price deregulation to result in destructive price competition was noted but was not viewed as an issue of great concern.[1] However, severe price competition occurred following

[1] The Workers' Compensation Rate Study Commission reported in 1992 that

> Experience in other states (for example, Michigan and Illinois) which have moved toward a more competitive market environment indicates that employer costs usually fall when regulatory constraints are eased; cutthroat competition resulting in widespread insurer insolvency and lack of availability have not occurred.

Referring to California's then existing minimum-rate law, the commission went on to conclude that

> market stability, insurer insolvency and profitability have been overemphasized to the point of regulatory paternalism. Stable markets are not necessarily static, and insurance company managers are rational, profit maximizing individuals. Reasonable assurances of insurer solvency can be accomplished by less obtrusive means. (Workers' Compensation Rate Study Commission, 1992, p. I-1.0-6)

open rating, with insurers pricing below already low projections of cost.[2] Figure 4.1 shows the ratio of the premium charged by private insurers to the CDI-approved modified pure premium rate for that year.[3] The modified pure premium rate captures the expected ultimate medical, indemnity, and loss-adjustment costs and factors in the policyholder's experience modifier, but it does not include marketing costs, broker commissions, and other insurer expenses. Between 1996 and 2007, these expenses averaged 20 percent of loss and loss-adjustment costs (WCIRB, 2008c, Exhibit 18.1). A ratio below 1.2 thus roughly indicates that an insurer is not charging enough to cover the ultimate costs of providing the coverage.[4]

As shown in Figure 4.1, the premium charged by California's private insurers as a whole was near or below expected loss and loss-adjustment costs (ratio less than 1.0) between 1995 and 2000.[5] It was not until 2001 that the ratio of charged to pure premium rose appreciably above 1.0 and not until 2002 that it exceeded 1.2. Also shown are the pricing ratios for the insurance groups selected for detailed analysis in this study. As might be expected, the figure suggests that the groups that ultimately became insolvent priced more aggressively than those that did not. The sample sizes are small, however, and the differences may not be statistically significant.

The more-aggressive pricing by companies that eventually became insolvent is reflected in higher growth rates for these companies. Figure 4.2 shows that the average percentage change in direct written premium in 1997, 1998, and 1999 was much higher for the selected companies that became insolvent than for the selected companies that remained solvent.

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[2] An authoritative study on the effects of price deregulation completed in 2001 concluded that

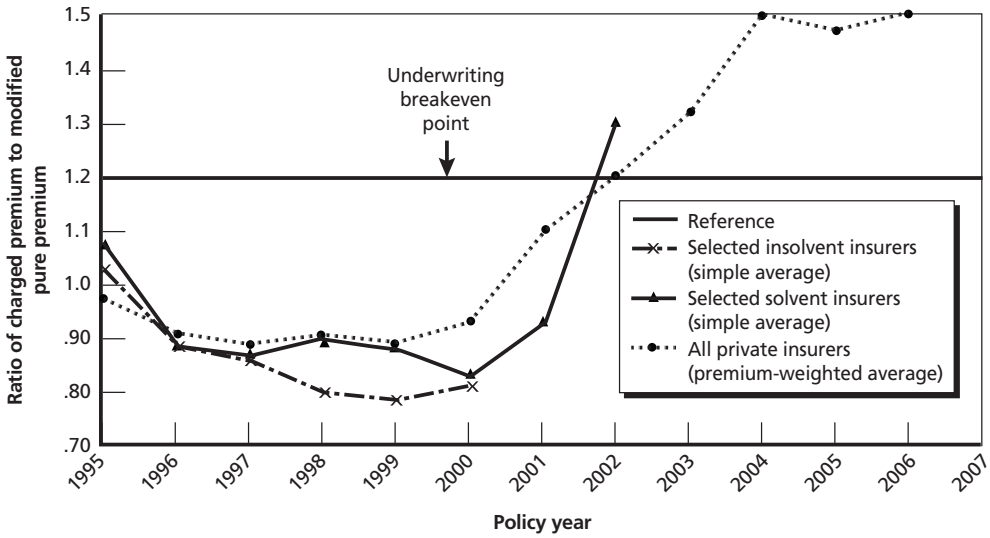
> The evidence suggests that comprehensive deregulation has led to a price war in the workers' compensation insurance market in some states. If so, it is possible that the substantial rate reductions found in those states will be short lived; as the war for market share is resolved, prices may rise once again. (Thomason, Schmidle, and Burton, 2001, p. 246)

[3] All insurers that write workers' compensation coverage in California, except the State Fund, are considered private insurers.

[4] Insurers earn a rate of return on their investment portfolios, and these returns can allow an insurer to earn a profit on its overall business even if it is losing money on its underwriting operations. For long-tailed lines like workers' compensation, the interest income that insurers earn on the reserves set up to pay claims can be substantial. The data provided in Burton (2008, p. 25) show that the ratio of investment return to losses and loss-adjustment expenses for workers' compensation insurance nationwide varied between 0.12 and 0.26 between 1995 and 2007, with an average of 0.20. Thus, one might expect that, over time, investment returns roughly offset the insurer expenses not included in the pure premium rate and, consequently, that an insurer may still be making money on its workers' compensation operation if the ratio of charged premium to modified pure premium were 1.0 or above. Other factors that would need to be considered in determining overall insurer profitability include federal taxes and the cost of capital.

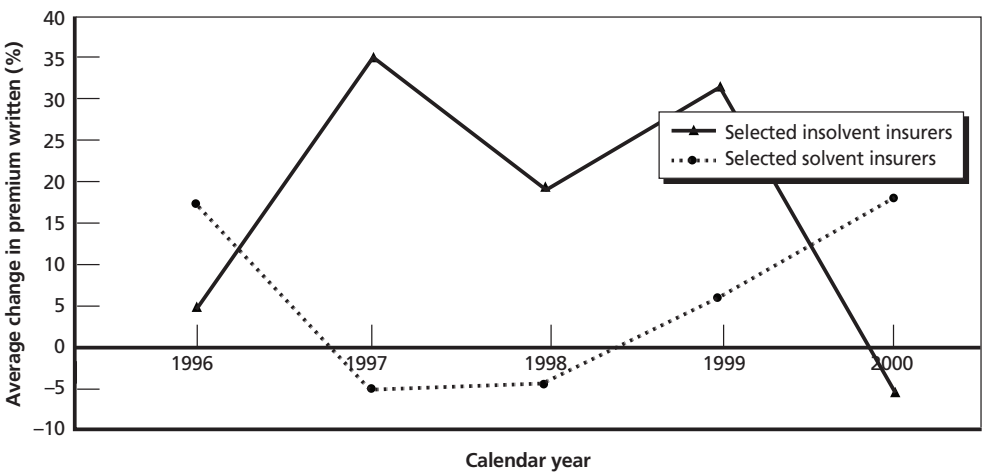
[5] Note that the ratio is calculated using the CDI-approved premium rate. If the WCIRB-recommended rates were used, the ratios would be noticeably lower for some years, although the overall message would remain the same.

Figure 4.1
Ratio of Charged Premium to Modified Pure Premium, Calculated Using CDI-Approved Pure Premium



SOURCE: WCIRB (2009b).
NOTE: This figure shows simple averages for the selected insurers for each year. The averages are based on data from the seven solvent insurers for which data were available for all years between 1995 and 2002 and the five insolvent insurers for which data were available for all years between 1995 and 2000.
RAND *MG949-4.1*

Figure 4.2
Average Change in California Workers' Compensation Direct Written Premium



SOURCE: CDI (1996a, 1997, 1998, 1999, 2000a, 2001a).
NOTE: The simple averages for each year in this figure are based on data for the seven insolvent companies and the five solvent companies for which data on premium written are available from 1995 though 2000.
RAND *MG949-4.2*

When describing the pricing practices following open rating, the insurers, regulators, and other parties interviewed for this study did not focus on the inadequacy of the rates that insurers filed with the CDI. Rather, they focused on how the rates were actually applied in the field. When pricing a policy, insurers typically start with a filed rate and then apply several modifiers that can increase or decrease the final premium charged. The two most important are called the *experience modifier* (or *X-Mod*) and the insurer's *schedule rating plan*. The former considers the employer's past loss experience and compares it to what losses would have been expected to be on average, with a credibility factor adjusting the final modifier. This process is tightly regulated by state insurance-rating bureaus, and insurers have no discretion on the modifier that needs to be used on each policy.

Schedule rating plans differ from experience rating in that the credit or debit is prospective in nature and is highly discretionary on the part of insurers. In theory, schedule credits and debits provide a way for the insurer to reward or penalize employers for documentable workplace-safety practices or the lack thereof.[6] Interviewees reported that schedule credits as high as 75 percent were not uncommon in California in the late 1990s. CDI staff familiar with the field rating and examinations conducted during this period (described later in this chapter) reported that it was not unusual for documentation supporting schedule credits to be missing. For example, the 1999 market conduct exam for the Fremont Insurance Group, which soon became insolvent, concluded that "There was no documentation found in the files to factually support the underwriters determinations in allowing schedule rating credits and debits" (Lawrence, 1999). There were also reports of insurers ignoring their underwriting guidelines and placing a policy with the insurance company with the lowest rate rather than the company consistent with the guidelines.[7] A number of those interviewed also recalled that, during this period, insurers selectively applied loss rating to risks that were previously thought too small for loss rating to be appropriate. The result was that risks too small to qualify for loss rating received reduced rates even though the absence of a recent loss was not reflective of reduction in the underlying probability of loss.[8]

Insurers used a number of different strategies to reduce rates in the second half of the 1990s. The bottom line, however, was that rates were low compared

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[6] Because schedule credits or debits are inherently subjective and have been reportedly a main source of underpricing practices nationally, some states (such as Virginia) have historically not permitted schedule rating at all. See NCCI (2009, slide 35).

[7] An insurance group can set up multiple companies that offer different rates. How risks (employers) are then assigned to different companies is then, in principle, determined by underwriting guidelines.

[8] Workers' compensation losses for small employers are more variable than those of larger employers, and, in any given year, a large fraction of small employers experience no losses. Thus, a small employer's absence of losses for the past several years does not mean that there has been a reduction in the probability of loss. Actuarially credible data on loss frequency for an employer are required before loss rating is justified.

with the then existing expectations of claim costs—and considerably below what claim costs ultimately turned out to be (as illustrated by the underwriting losses in Figure 1.1 in Chapter One).

Reasons for the Low Pricing

The low pricing by insurers in the five or so years following open rating was driven by a number of different factors. The effect of some of these factors on pricing is clear, but the effect of others remains somewhat murky. We now review six factors that came up most regularly in the interviews.

Concern That the Large, National Insurance Companies Would Gain Market Share

As shown in Figure 2.1 in Chapter Two, companies that specialized in California workers' compensation accounted for 23 percent of the premium written in 1990. According to some of those interviewed, these firms feared that large, national firms would make a move to increase their market share following open rating and saw indications that the national insurers were preparing to make such a move after the open-rate law was passed in 1993.[9] In response, some paid higher broker commissions and locked customers into multiyear policies at favorable rates. The market share of the California specialty companies rose from 23 to 31 percent between 1990 and 1995. Following the switch to open rating, underwriters at these firms, concerned about the prospect of losing market share and their jobs, continued to aggressively price policies.

The general sense among those interviewed was that the competition from the large nationals never materialized. The predominant view was that the nationals were writing California workers' compensation primarily to fill out (or "wrap up") coverage for the large policyholders that they were already covering in other lines or other states. That said, the expectation that the nationals would aggressively compete in the California workers' compensation market could still have motivated preemptive behavior by the specialty companies.

Some of those interviewed agreed that that the specialty companies led the aggressive pricing, but discounted the view that their actions were motivated by concern about the large, national companies. In their view, the specialty companies

[9] Price competition under the minimum-rate law occurred primarily through paying dividends to policyholders after the policy had terminated, typically 18 months after policy inception. Dividends could be paid only from profit generated on California workers' compensation coverage, limiting the ability of large, diverse insurers to subsidize California workers' compensation prices from other lines of business. Following open rating, large, diverse companies could, in principle, use their whole book of business to subsidize prices with the goal of increasing market share and raising prices later.

saw an opportunity to increase market share, and, while they might lose money in the short run, they expected the prices to rise soon and substantial profits to follow.[10]

Lack of Experience with Pricing in an Open-Rating Setting

Underwriters at California specialty companies had little experience pricing in a competitive-pricing setting, and specialty companies never had reason under the minimum-rate regime to establish procedures to oversee the pricing decisions of its underwriters. These factors, combined with underwriter concerns that their jobs might be at risk if volumes did not stay up, likely contributed to the unsustainable pricing following open rating.

Unrealistically Inexpensive Reinsurance

The availability of unrealistically inexpensive reinsurance contributed to the low pricing. Insurers were starting to see the need to increase rates in 1997 and 1998, but the Unicover program and other very attractive reinsurance programs became available just at that time. The availability of low-cost reinsurance extended the underpricing for several years. Reinsurance issues are discussed in Chapter Five.

Entry of Group Health Insurers

A number of group health insurers became interested in the workers' compensation market in the second half of the 1990s. These insurers believed that they could treat injured workers more cheaply in part by applying utilization-review protocols that had been developed outside the workers' compensation setting. They thus partnered with workers' compensation insurers, urging the insurers to relax rates and grow their business. Aggressive pricing by these insurers put downward pressure on prices throughout the industry. It was not until later that the group health insurers realized how little control they had over medical treatment under California's workers' compensation system.

Overly Narrow Focus of Employers on Price

The guarantee that the claims of insolvent workers' compensation insurers will be paid reduces incentives for employers to consider an insurer's financial stability when purchasing insurance. CIGA pays the claims of insolvent property-casualty insurers, and all employers, regardless whether they bought insurance from insurers that eventually became insolvent, are subject to surcharges to cover CIGA's payments. As discussed in Chapter Two, CIGA pays workers' claims without limit. As

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[10] As shown in Figure 1.1 in Chapter One, underwriting profit on workers' compensation nationwide has followed a cyclical pattern. In a soft market, prices fall; they rise in a hard market. The workers' compensation market nationwide was in the soft phase of the cycle in the second half the 1990s. The market did eventually turn, but not soon enough for some insurers.

a consequence, employers can shop for insurance based on price, without concern for whether claims will be paid.[11] This overly narrow concern about price, while completely rational from an employer's point of view, can contribute to the downward pressure on price.

While CIGA reduces the cost of insolvency to the workers' compensation policyholder, the cost is probably not eliminated. According to some of those interviewed, transferring claims to CIGA can cause interruptions in benefit payments, and statute prohibits CIGA from providing many of the services that private insurers often do.[12] Empirical work is not available to assess the extent to which payment guarantees contributed to low pricing following open rating. However, it is reasonable to expect that they played some role.

Aggressive Competition from the State Fund

The State Fund is a major player in the market, and it is logical to inquire about its role in the low pricing following open rating. In 1999, the State Fund accounted for 41 percent of the policies written in the state and 22 percent of the booked premium (excluding self-insured employers). By 2001, these percentages had increased to 50 and 43 percent, respectively, raising concern that the State Fund contributed to keeping prices low.

According to a number of those interviewed, the State Fund was not aggressively competing for business through 1997. Then, starting in 1998 or 1999, the State Fund began to actively compete on price. A number of insurers recalled multiple instances of losing existing policyholders to the State Fund because they could not come close enough to the State Fund's price. The timing of this increased aggressiveness does not suggest that the State Fund led the reduction in pricing, but rather that it responded to it. Previous work on this subject came to a similar conclusion. For example, the 2003 Hays Companies study of the workers' compensation market concluded that

> [t]he nexus for the solvency crisis began with the domestic carriers and moved to the State Fund as they attempted to compete with the irrational pricing practices of the domestics. (Hays Companies, 2003, p. 6)

Some of those interviewed attributed the State Fund's increasing aggressiveness in part to a downward trend in its market share in the first several years following open rating. Figure 4.3 shows two measures of the State Fund's market share between 1995 and 2002. The curve labeled "Booked premium" shows the State Fund's market share as a percentage of total premium collected or booked by insur-

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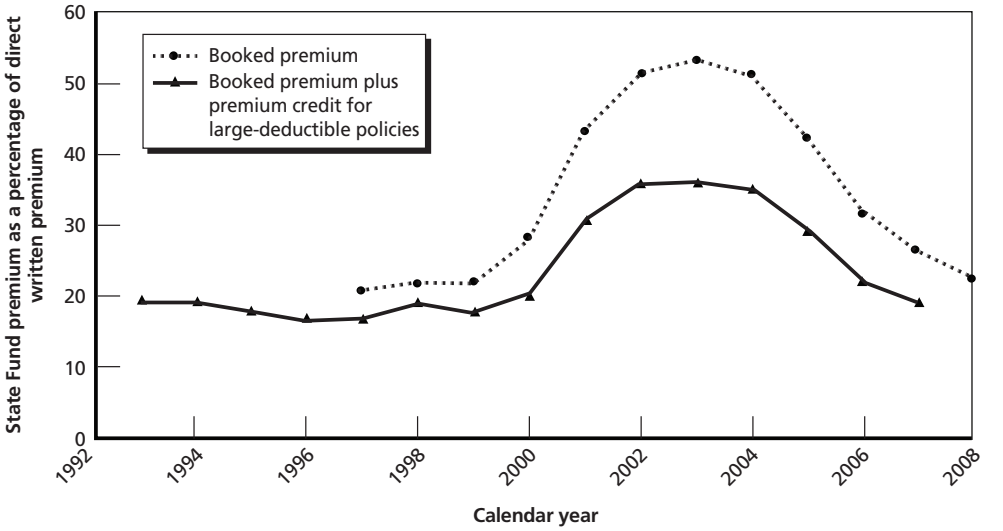
[11] See Hall (1998) for further discussion of the incentive problems created by guarantee associations.

[12] CIGA, for example, does not offer back-to-work programs, ergonomic studies, safety programs, other loss-control programs.

Figure 4.3
State Fund Market Share



SOURCES: CHSWC (2008, p. 177); CDI (1998, 1999, 2000a, 2001a, 2002, 2003a, 2004a, 2005, 2006, 2007a, 2008, 2009b).

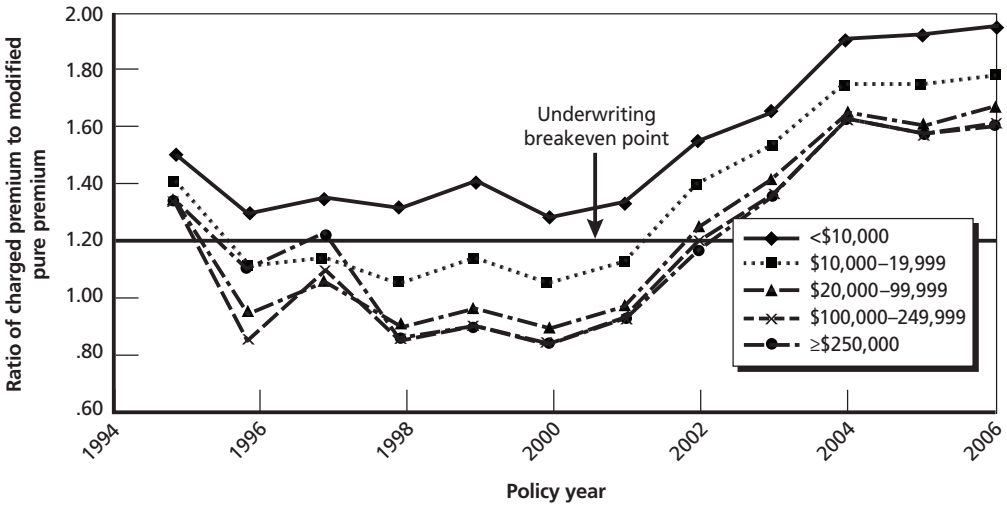
RAND *MG949-4.3*

ers. The second curve shows the percentage after including the premium reductions that are credited to employers with large-deductible policies.[13] As can be seen, there was a slight decline in the State Fund's market share in the first few years following the passage of the open-rating law in 1993. This decline, combined with feedback from the field about competitors' pricing behavior, may have convinced State Fund management that the State Fund needed to become more aggressive if it wanted to maintain a healthy book of business in an open-rating environment.

Data on the State Fund pricing suggest that the State Fund was competing aggressively for larger accounts. Figure 4.4 reports the ratio of charged premium to modified pure premium for five policy-size categories. As can be seen, the ratios all cluster between 1.35 and 1.5 in 1995. The ratio for policies with annual premium less than $10,000 did not decline a great deal through 2001 and remained above 1.25 during this period. The State Fund already wrote a very high percentage of the policies in this market segment and, during this period, faced little competition from private insurers for this business. In contrast, the ratio fell sharply for the other size categories, with the ratios below 1.0 between 1998 and 2001 for policies generating $20,000 or more in annual premium. The State Fund was therefore pricing these policies below their expected loss and loss-adjustment expense costs.

[13] The State Fund writes few large-deductible policies, whereas, as discussed in Chapter Three, large-deductible policies are common for other carriers. Thus, the State Fund's market share is lower when the premium that would have been generated by the deductible portion of large-deductible policies is included.

Figure 4.4
State Fund Pricing, by Policy Size

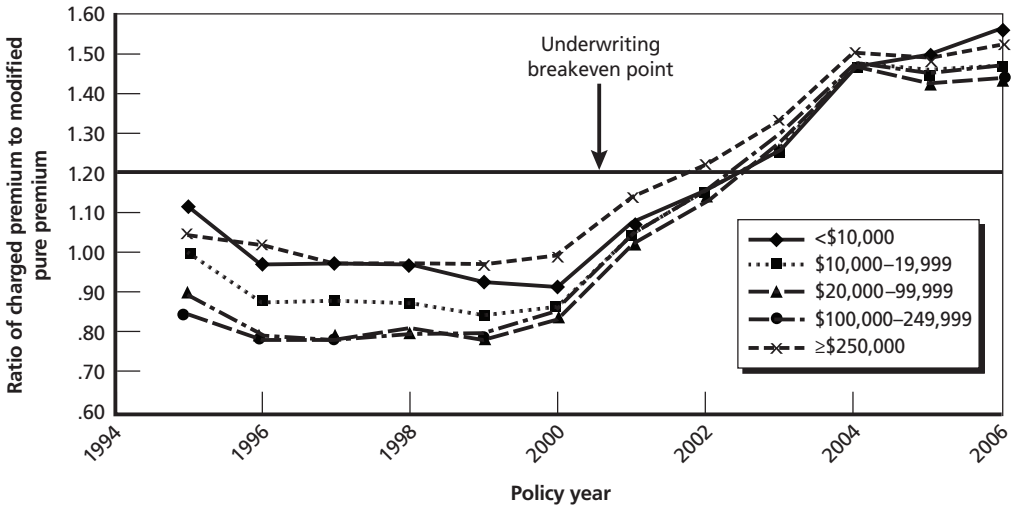


SOURCE: WCIRB (2009f).
RAND *MG949-4.4*

Figure 4.5 shows comparable pricing ratios for the private insurers writing workers' compensation insurance, and Figure 4.6 shows the difference between the State Fund's pricing ratios and those of the private sector. The State Fund was pricing consistently above the private sector for policies generating less than $10,000 in annual premium and policies generating between $10,000 and $19,999. In contrast, the data suggest that the State Fund priced below the private sector for policies generating more than $250,000 in annual premium between 1998 and 2002. The gaps were particularly large in 2000 and 2001, with the State Fund ratio of final to modified pure premium below the private-insurer ratio by 0.16 and 0.21, respectively. For policies between $20,000 and $99,999 and between $100,000 and $249,999, the gap between State Fund and private insurer pricing narrowed considerably between 1998 and 2000 and was negative in 2001.[14] The low price ratios during this period are consistent with insurer perceptions that the State Fund was competing aggressively in the market starting in 1998.

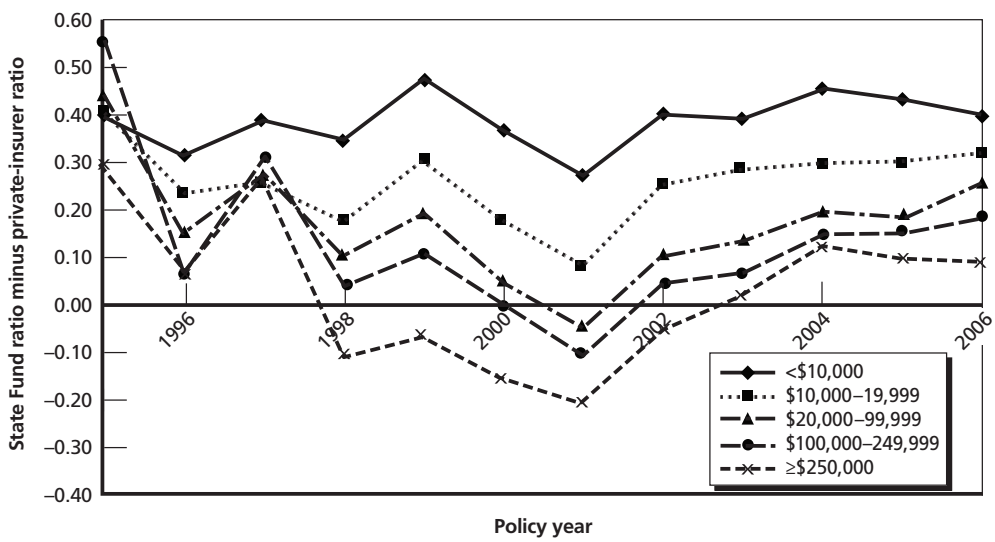
[14] Comparison of State Fund and private-sector pricing for policies greater than $250,000 in annual premium should be interpreted with care. The State Fund writes few if any large-deductible policies, but large deductibles are common in the policies that private insurers write for large employers. When reporting data on premium to the WCIRB, private insurers adjust the premium on large-deductible policies to reflect what the premium would have been had there not been a large deductible. If private insurers systematically overstate how much higher the premium would have been had there been no large deductible, State Fund pricing would appear lower relative to the private insurers than it actually is. We are not aware of analyses on the existence of size of any such bias.

Figure 4.5
Private Insurer Pricing, by Policy Size



SOURCE: WCIRB (2009g).
RAND *MG949-4.5*

Figure 4.6
Difference Between the State Fund's and Private Insurers' Ratios of Charged to Modified Pure Premium, by Policy Size



RAND *MG949-4.6*

Table 4.1 shows the associated growth in the number of State Fund policies by policy-size category. Between 1999 and 2001, when the prices for the large policies

Table 4.1
Number and Growth Rates of State Fund Policies, by Policy-Size Category

Policy-Size Category ($)	Number of Policies			Percentage Change	
	1999	2001	2003	1999 to 2001	2001 to 2003
<10,000	202,015	206,195	180,911	2	–12
10,000–19,999	17,094	33,799	40,435	98	20
20,000–99,999	11,264	34,074	50,673	203	49
100,000–249,999	1,049	5,864	11,390	459	94
≥250,000	206	2,248	5,793	991	157
All policy sizes	231,628	282,180	289,202	22	2

SOURCE: CDI (2004b, p. 13).

were at their lowest levels relative to pure premium, the number of large policies grew rapidly. For example, the number of policies generating between $100,000 and $249,999 in premium more than quintupled. The number of large policies continued to grow between 2001 and 2003, but at slower rates. The tremendous jump in State Fund market share shown in Figure 4.3 was due to the growth in the number of larger policies.

There are several other reasons to believe that the State Fund began competing more aggressively for the large accounts toward the end of the 1990s:

- In 1996, the State Fund introduced a bonus credit plan "in order to increase our competitive position in the large account segment of the market" (State Fund, 1995, p. 17).
- State Fund rate filings between 1995 and 1998 reduced the minimum premium to qualify for a "merit rating plan" credit or debit from $100,000 in 1995 to $25,000 in 1998 (CDI, 2004b, p. 15).[15]
- Based on our interviews with State Fund management, it appears that this substantial increase in large accounts was achieved with almost no large-deductible policies being written. Many of these large accounts undoubtedly had previously been written with large deductibles. According to private insurers, the State Fund did not win these accounts based on superior service. Rather, it needed to offer very attractive rates relative to the rest of the industry.
- Between 1994 and 2009, the State Fund expanded its production strategy to include unaffiliated agents and brokers. The commission paid to producers rose from zero in 1994 to 1 percent of direct written premium in 1997,

[15] The merit plan is called a schedule rating adjustment in most filings.

to 3.2 percent in 1999, and to 6.9 percent in 2007 (State Fund, 1995, 1998, 2000, 2008).

- The State Fund started to more aggressively advertise. Television and print advertising increased, as did direct communication to brokers. For example, a number of interviewees recalled a State Fund blast fax to insurance brokers at the time of the Superior National conservation, offering to take on Superior's customers and to match Superior's pricing.[16] Superior's pricing at that time was far below Superior's pure premium rates.
- According to a knowledgeable source, a major insurer that was considering taking over Superior after it was conserved by the CDI in March 2000 was "scared off" by the State Fund pricing.

Taken together, all these actions make a compelling argument that the State Fund was aggressively competing for large accounts starting around 1998. It therefore seems reasonable to conclude that the State Fund contributed to the low pricing during this period and helped extend the low pricing for longer than would have been the case otherwise. In the view of some of those interviewed, the State Fund extended the soft insurance market for 18 to 24 months.

One might argue that the very large increase in State Fund market share between 1999 and 2003 can be justified by the State Fund picking up the market share of insurers that that went insolvent. It was beyond the scope of this study to confirm whether a substantial portion of the increase in State Fund market share was due to the transfer of policyholders from insurers that went insolvent to the State Fund. However, if it is assumed that all such policyholders moved to the State Fund, then the increase in State Fund market share can be accounted for (see Appendix B). Nevertheless, even if the increase in State Fund market share was largely due to the transfer of policyholders from the insolvent insurers, it should not be concluded that the State Fund needed to or should have picked up these policies. A number of insurers interviewed said they were willing and able to write the policies that the State Fund ultimately won. They were not willing, however, to write them at the prices offered by the State Fund. As shown in Figure 4.4, the State Fund, on average, charged prices below the pure premium for accounts generating $20,000 or more in premium through 2001.

While the State Fund's aggressive competition for larger accounts was likely driven in part by conscious management decisions, it may not have been entirely intentional. According to some of those interviewed who were familiar with the State Fund's operations during that time, the State Fund's sales operations were very decentralized, and the independent offices had little understanding of where

[16] We have not been able to obtain a copy of the blast fax. However, there were enough independent mentions of its existence to provide confidence that it was indeed sent.

the State Fund's overall pricing was relative to the market. What is more, the State Fund started paying larger broker commissions during this period, giving brokers larger incentives to go out and market State Fund policies. The use of brokers was still relatively new to the State Fund, and it is reasonable to believe that the State Fund was not prepared to manage broker activity in an open-rating setting. While State Fund management may have wanted to see some growth in large accounts, the explosion in growth may not have been intended.

California Department of Insurance Pricing Oversight

The factors were many that led insurers to charge rates substantially below the claim costs projected in the second half of the 1990s. But the fact remains that rates were substantially below costs. As described in this section, the CDI was aware that rates were unsustainably low and made efforts to increase them. However, these efforts were too little and too late to prevent the subsequent insolvencies. The conclusion that the CDI did not intervene aggressively enough to reverse the low rates is not meant to imply that it should have, but is merely meant as a statement of fact. In this section, we examine how the CDI did respond to the low pricing, why it did not do anything more, and how its approach to rate regulation has changed since the insolvencies.

California Department of Insurance Response to Low Rates Following the Move to Open Rating

According to senior staff at the CDI, the CDI became aware in 1999 that rates were too low. Data on the timing of CDI field rating and underwriting examinations are consistent with this date. Field rating and underwriting exams assess whether the rate schedule filed with the CDI has been appropriately applied.[17] As shown in Table 4.2, field rating and underwriting exams were conducted for both Superior and Fremont in 1999. Exams were also conducted for five of the six other selected insolvent groups in the year of or within two or three years of conservation. This flurry of field rating and underwriting exams suggests that the CDI was concerned about the pricing practices of the companies that would eventually become insolvent.

Even though the CDI did become aware that pricing by private insurers was unsustainably low, little was done about it. CDI staff in the Rate Regulation Branch could not recall ever challenging insurer-filed rates for being too low. Insur-

[17] Field rating and underwriting examinations are periodically conducted for all insurers that do business in California, whether or not they are domiciled in California. They evaluate, among other things, whether the insurer has filed rates with the CDI, whether the company is using the rates that have been filed, and whether schedule credits have been applied reasonably.

Table 4.2
California Department of Insurance Examinations of the Selected Insolvent Insurers

Company Name	Group	State of Domicile	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Golden Eagle	—	Calif.		F1295										
California Compensation Insurance Co.	Superior	Calif.	M1195		F1295		M1199	F1299						
Combined Benefits Insurance Co.	Superior	Calif.					M1199	F1299						
Commercial Compensation Casualty	Superior	Calif.	M1195				M1199	F1299						
Superior National Insurance Co.	Superior	Calif.		M0196			M1199	F1299						
Superior Pacific Insurance Co.	Superior	Calif.	M1195				M1199	F1299						
Employers First Insurance Co.	Fremont	Calif.					M0499	R2000	F1299[a]					
Fremont Compensation Insurance Co.	Fremont	Calif.	M0895				M0499	R2000	F1299[a]					
Fremont Indemnity Co.	Fremont	Calif.					M0499	R2000	F1299[a]					
Fremont Indemnity Co. of the Northwest	Fremont	Wash.												
Fremont Industrial Indemnity Co.	Fremont	Calif.	M1295					R2000	F1299[a]					

Table 4.2—Continued

Company Name	Group	State of Domicile	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Fremont Pacific Co.	Fremont	Calif.					M0499	R2000	F1299[a]					
Casualty Reciprocal Exchange	Dodson	Mo.							M0101	F1201				
Legion Insurance Co.	Legion	Pa.			M1297			F1299		M0402				
Villanova Insurance Co.	Legion	Pa.						F1299		M0402				
PAULA Insurance Co.	—	Calif.	M0995		F1296		M1099		F1299					
Western Growers Insurance Co.	—	Calif.		M1296	F1295			M0100		F0602				
Municipal Mutual Insurance Co.	—	Calif.			M0897			F1298						F0606

NOTE: FMMYY = financial examination as of month (MM) and year (YY) by the CDI Financial Examination Division. RYYYY = reserve study by the CDI Financial Examination Division as of year (YYYY). MMMYY = field rating and underwriting examination by the CDI Market Conduct Division as of month (MM) and year (YY). Shading denotes the year in which that insurer was conserved. In the case of Fremont, shading denotes the year in which the letter of oversight was signed with the CDI.

[a] The exam was originally planned to be through December 1998, but, because of significant findings during the exam, the review period was extended through December 1999.

ers interviewed for this study alerted the CDI to examples of egregiously low pricing, but, as far as they were concerned, the CDI did little about them.[18]

Field rating and underwriting examinations uncovered numerous deficiencies in insurer underwriting practices and required insurer management to address them. For example, the management of the Fremont Insurance Group instructed its underwriters to provide proper documentation for schedule credits after the lack of such documentation was uncovered in the 1999 field rating and underwriting exam (Lawrence, 1999). We have not been able to ascertain whether the department followed up to determine whether Fremont's underwriting practices changed; however, it may have well been that any changes were too late to prevent Fremont's insolvency.

The CDI appears to have been more aggressive in its oversight of State Fund pricing. According to CDI staff, the CDI urged the State Fund to increase its rates in 2001 and 2002 and sent a letter to the State Fund in 2002 that expressed concern about the State Fund's financial situation and recommended that the fund increase rates and make a number of other changes in its operations. The State Fund did increase rates substantially in 2002, 2003, and 2004, and, effective May 1, 2003, it agreed to stop bidding for any new business except for accounts that generated less than $25,000 in annual premium and had been declined coverage by three other carriers (State Fund, 2003, p. 7). Thus, while the CDI did make efforts to increase State Fund rates and limit its market share, those efforts came only after the State Fund's rates for larger policies had remained very low for several years (see Figure 4.4) and put downward pressure on the prices that private insurers were able to charge.

Reasons That the California Department of Insurance Did Not Intervene When Rates Were Low

The CDI did not act aggressively to force insurers to raise rates that it knew were too low, because of both a limited ability and a limited willingness to act.

In terms of its ability to act, senior CDI staff indicated that up through 2002, when new legislation was passed, the department was required to show, before it could require rates to be increased, that an insurer was operating in a way that would impair or threaten its solvency.[19] For large, multiline companies, this meant

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[18] Others who have reviewed CDI regulatory response during this period have concluded that the CDI did little to prevent low pricing. For example, in its 2006 study, Bickmore Risk Services (2006, p. IX-4) concluded that "Insurers were required to file rating plans and the range of rate deviations that they intended to use, but then were free to set the price of individual policies with little or no oversight or control by CDI."

[19] Between 1995 and 2002, the CDI had to rely on California Insurance Code §1065.1 and the then applicable version of §11732 for authority to regulate rates. Section 1065.1 states, in part,

> Whenever the commissioner has reasonable cause to believe, and determines, after a public hearing, that any person specified in Section 1010 is conducting its business and affairs in such a manner as to threaten

that the rates had to threaten the solvency of the entire company and not just result in losses on its California workers' compensation coverage. Even for California specialty companies, the CDI viewed its power to act quickly as limited. Companies are entitled to a public hearing before the CDI can issue an order to raise rates, and in the view of CDI senior staff, the hearings were expensive and the probability of success low. Their assessment was that it would be difficult to convince a hearing officer to approve an order if, as was the case in 1997, 1998, and 1999, insurers that were pricing low were often still in reasonable financial health. The consequences of low rates may not become manifest for three or four years, with the company appearing financially stable in the interim.

The CDI's willingness to act on low rates during the period leading up to the insolvencies was also limited. According to CDI staff, Commissioner Charles Quackenbush had a strong philosophical commitment to deregulation and was very reluctant to intervene in the market.[20] In addition, according to those both inside and outside the department, the top levels of the department were very sensitive to the needs of employers. Low workers' compensation rates were viewed as important to maintaining a vibrant state economy. Consequently, the focus of the department was singularly on rates that were too high, not too low.

How the California Department of Insurance Has Responded

There have been a number of changes in the CDI's rate-making authority and rate oversight procedures since the rash of insolvencies. In 2002, legislation was passed that allowed the CDI to require that workers' compensation rates be adequate to cover an insurer's losses and expenses. The new authority provides that

> The commissioner may disapprove rates if the commissioner determines that premiums charged, in the aggregate, resulting from the use of the rates . . . would be inadequate to cover an insurer's losses and expenses, unfairly discriminatory, or tend to create a monopoly in the market. (California Insurance Code §11737[b])

and

> to render it insolvent, or that it is in a hazardous condition . . . he may make and serve upon the person such order or orders as shall be reasonably necessary to correct, eliminate or remedy such conduct, condition or ground.

At that time, Section 11732 stated, "Rates shall not, if continued in use, tend to impair or threaten the solvency of an insurer or tend to create a monopoly in the market" (SB 223, signed by the governor October 11, 1993).

[20] Charles Quackenbush was insurance commissioner from January 1995 to July 2000.

> The commissioner shall disapprove rates if the commissioner determines that premiums charged, in the aggregate, resulting from the use of the rates . . . , would, if continued in use, tend to impair or threaten the solvency of a[n] insurer. (California Insurance Code §11737[c])

Now the commissioner *may* intervene if workers' compensation rates are below the cost of providing the coverage and *must* intervene if the rates threaten the solvency of the insurer. Note, however, that the commissioner still has discretion on whether to intervene when rates are below costs and that the commissioner is *required* to intervene only when the workers' compensation rates would put the entire company at risk of insolvency.

The CDI has increased the attention paid to pricing in financial examinations. The CDI periodically conducts financial examinations of insurers domiciled or commercially domiciled in California.[21] The examinations review the company's practices and procedures, examine management records and detailed transactions, and evaluate the insurer's assets, reserves, and other liabilities. Between 1995 and 2000, financial examinations did not address company pricing and underwriting practices. According to staff in the CDI Field Examination Division, financial examiners now interview the company underwriting officer and review company underwriting policies. They also assess the lines of communication between company management and internal auditors and actuaries and review audits the company has commissioned of its underwriting practices.

In spite of the enhanced authority over workers' compensation rates, the CDI Rate Regulation Branch still does not place a priority on workers' compensation rate adequacy. According to CDI Rate Regulation staff, the current approach is to closely watch companies whose rates appear too low and to intervene at the first sign that the company is in financial trouble. A widespread perception also remains among CDI staff that actions to raise rates are not encouraged.

There appears to have been little fundamental change in the CDI approach to rate regulation since the insurer insolvencies following open rating. The result is that there seems little reason to believe that the CDI will take actions to prevent a new round of underpricing.[22] Even if the CDI does eventually act once an insurer

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[21] A commercially domiciled insurer is, with some exceptions, an insurer domiciled in another state (a *foreign insurer*) that,

> during its three preceding fiscal years taken together, or during any lesser period of time if it has been licensed to transact its business in California only for such a lesser period of time, has written an average of more direct premiums in the State of California than it has written in its state of domicile during the same period, and those direct premiums written constitute 33 percent or more of its total direct premiums written everywhere in the United States for that three-year or less period. . . . (California Insurance Code §1215.13[a])

[22] Bickmore Risk Services (2006, p. IX-6) similarly concluded that "[t]he open rating system that was enacted did not include the protective features of 'floor rates'. Consequently, the same basic rate regulatory

is in financial trouble, one of the lessons learned from the past ten years is that it is usually too late for the company to avoid bankruptcy. In the meantime, the low pricing may have induced other companies to cut rates, creating financial strain throughout the industry.

Recommendations for Increasing the Likelihood That Insurers Charge Adequate Prices

The intense price competition that emerged following open rating resulted in prices below the costs of the coverage expected at that time. The extent and duration of the low pricing were due to the compound effects of a number of factors, not the least of which was the lack of experience of some insurers with a deregulated rate environment. It is unlikely that these factors will line up in the same way again. For example, the insurers that survived the difficult market were probably the more prudent insurers in the first place and now have a heightened appreciation of the dangers of loose underwriting and unrealistically low reinsurance rates. Nevertheless, as time passes, memories of the difficult market and insolvencies will undoubtedly fade, and a new constellation of factors may arise that creates strong incentives to price below product costs. The following recommendations strive to reduce the likelihood that insurers will engage in destructive pricing behavior and address, in turn, CDI regulatory strategy, buyer incentives, and State Fund pricing practices.

Recommendations for California Department of Insurance Regulatory Strategy

It is very difficult to regulate workers' compensation rates in an open-rating setting. Insurer pricing schedules are complex, and insurers will likely be able to elude CDI efforts to maintain adequate rates. Take schedule credits, for example. It is very hard to evaluate whether the schedule credit offered to an employer is appropriate. The CDI might be able to verify whether an insurer has documented the basis for the credit, but it is difficult to determine whether the magnitude of the credit is appropriate. The CDI might preemptively set a maximum on schedule credits, but insurers may respond by changing the base rates on which schedule credits are applied.[23] Similarly, it may also be difficult to show that insurers are inappropriately moving risks to insurance companies with the lowest rate schedules. According to some of the insurers interviewed for this study, CDI examiners do not fully understand underwriting and rarely have actually underwritten the business themselves.

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structure remains in place, which could possibly allow a new round of cut throat pricing."

[23] The CDI did issue guidance in 2002 that schedule credits should not exceed 25 percent. Starting in 2006, however, some insurers we interviewed began filing higher maximums for schedule credits, and the CDI did not object.

This increases the difficulty of regulating insurer pricing practices. Compounding the problem is the ongoing pressure on CDI staff to intervene only when rates are high or underwriting practices are unfair or discriminatory.

Some of our interviewees believed that California should return to some form of minimum-rate regime. However, support for such a change was not widespread. Others we interviewed supported requiring prior approval of workers' compensation insurance rates, as is done for many other insurance lines in California. However, given the pressure on the CDI to protect employers from high rates rather than from inadequate ones, prior approval does not seem to be a dependable solution to underpricing. In our view, a better approach is to retain competitive pricing but enhance solvency regulation (recommendations in this area are discussed in Chapter Eight). Doing so would allow California to realize some of the benefits of open rating.[24] Nevertheless, there are a number of changes that the CDI could make that we believe would increase pricing discipline in an open-rating setting. The focus of these recommendations is to increase information available to rating agencies, investors, and the market more generally, as well as to make sure that insurers provide solid basis for the pricing decisions that they make.

Recommendation 7: Make WCIRB Pricing Reports Public. Currently, rate filings with the CDI are public information, but, as discussed above, the final rate charged by an insurer can differ dramatically from the filed rates. Every quarter, the WCIRB provides the CDI with a confidential report comparing the premium charged to pure premium for each insurer. Making these reports public would increase scrutiny of insurer pricing practices.[25] Rates that were too low would presumably induce a negative reaction by investors, rating agencies, insurance brokers, and other market observers.

Recommendation 8: Post Insurers' Annual and Quarterly Financial Statements on the CDI Web Site. Insurers are required to submit annual and quarterly financial statements to the CDI. These statements include a wealth of information on the insurer's operations and on its financial health. The statements are currently publicly available but difficult to obtain. Posting them on the CDI Web site would facilitate broader access to this information. Some insurers already do post such statements on their own Web sites.

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[24] Thomason, Schmidle, and Burton (2001, pp. 244–245) find that the more comprehensive forms of rate deregulation are associated with lower employer costs. Based on an extensive review of the experience with deregulation across many states, they conclude that "a completely deregulated market is a more efficient delivery system and is, therefore, preferable to either partial deregulation or administered pricing."

[25] The quarterly data on which the WCIRB bases its reports are submitted by insurers within two months of the end of each reporting quarter. They are thus available on a very timely basis but have not been audited. Insurers report audited data to the WCIRB (via the unit statistical reports) with a two-year lag. How best to balance timeliness with accuracy in the release of pricing data should be investigated. For example, the quarterly reports released by the WCIRB might present data from both sources in a way that allows users to assess for themselves the reliability of the unaudited data.

Recommendation 9: Consider Publicly Releasing the Results of CDI Field Rating and Underwriting Exams. Currently, the results of field rating and underwriting examinations are not public. Releasing these reports would provide valuable information on whether the insurer has provided documentation and support for schedule credits and whether it is adhering to the rate plan and underwriting guidelines filed with the CDI. In evaluating whether to make these reports public, consideration should be given to whether the prospect of public release would lead examiners and CDI management to water down the findings. Practices in other states regarding the release of field rating and underwriting exams should also be reviewed.

Recommendation 10: Impose Penalties for Violations in Field Rating and Underwriting Examinations. There are no penalties in the insurance code specifically for violations uncovered in the field rating and underwriting examinations. In a very serious case, the CDI could, in principle, revoke the insurer's authority to do business in the state, but the CDI is left with a penalty that is, in effect, all or nothing. Consideration should be given to imposing penalties sufficient to deter violations.

Recommendation 11: Improve Training and Professional Standards for Workers' Compensation Underwriters. Currently, there are no licensing requirements or minimum certification requirements for insurer personnel who negotiate rates and terms with potential policyholders. Insurers may have their own training programs for personnel who negotiate rates and terms with potential policyholders, but there are no requirements on what material should be covered. The CDI could work with insurers and professional organizations, such as the International Risk Management Institute (IRMI) or the American Institute for Chartered Property Casualty Underwriters (AICPCU), to develop an appropriate training program that would help increase professionalism and underwriting discipline. The program could cover such topics as schedule rating and loss-rating principles, pricing cycles in the insurance industry, and the factors that led to the insolvencies following the switch to open rating. The training might be run by insurers themselves or contracted out to third-party organizations. The CDI might also offer introductory training programs to help underwriters better understand the limits of their discretion in the market.[26]

Recommendation 12: Create a Whistle-Blower Program to Report Excessively Low Rates. The quarterly WCIRB pricing reports provide the CDI with valuable information on insurer pricing practices, but the CDI would also benefit from information on pricing practices from the people in the field. Currently, there are no formal procedures for making such complaints. The CDI might set up a

[26] The Hays Companies report (2003, p. 63), for example, recommended that the CDI work to develop a training program for newly hired claim adjusters.

whistle-blower program and then pay particularly close attention to the surplus or RBC ratios of insurers consistently identified by whistle-blowers. To deter insurers from using the program to harass competitors, a high-level manager at each insurer might be designated as the only person authorized to make complaints. The CDI might also consider making the list of complaints public, redacting the names of the whistle-blowers.

Recommendations Pertaining to Buyer Incentives

Increasing incentives for employers, brokers, and other intermediaries to pay attention to the financial stability of their workers' compensation providers may reduce an overly narrow buyer focus on price. We do not think it appropriate to threaten payments of state-mandated benefits by relaxing CIGA's charge to pay the workers' compensation benefits of an insolvent insurer without limit. Rather, we think it advisable to modify incentives on the demand side of the market.

Recommendation 13: Explore Ways to Give Insurance Brokers and Other Intermediaries a Greater Stake in the Financial Soundness of the Insurers with Which They Place Policies. One option that might be considered is to adjust the way in which CIGA payments are financed. Currently, CIGA funds its claim payments with assessments on insurers that are then passed on to employers through premium surcharge (the surcharge can be up to 2 percent of the premium). This financing approach might be changed to include surcharges on insurance brokers and other intermediaries who placed policies with insurers that subsequently become insolvent. The assessment might be based on the amount of premium placed with the insolvent insurers during a specified number of years prior to insolvency. Other approaches for increasing the stake that brokers and other intermediaries have in an insurer's financial soundness should also be identified and the disadvantages of various options considered. In addition to increasing the attention that brokers and other intermediaries pay to insurer soundness, such reforms would likely increase the demand for high-quality analyses from the rating agencies.

Recommendations for Pricing Practices of the State Fund

The State Fund was created by the state, and the State Fund's mission, as provided in its charter, is to

- provide a "market of last resort" for employers in the state. The State Fund "shall not refuse to insure any workers' compensation risk under state law, tendered with the premium therefor" (California Insurance Code §11784[c]).[27]

[27] The State Fund may decline to offer insurance to any employer that has not complied with required safety practices and may decline to insure any risk that "is beyond the safe carrying of the fund" (California Insurance Code §11784[c]).

- be "fairly competitive with other insurers" (California Insurance Code §11775).

The enabling legislation further states,

> [I]t is the intent of the Legislature that the fund shall ultimately become neither more nor less than self-supporting. For that purpose, loss experience and expense shall be ascertained and dividends or credits may be made as provided in this article.

The State Fund thus differs from private-sector insurers in that it has no expectation to produce a profit. The State Fund is also exempt from federal taxes.

The State Fund helps achieve several of the goals specified in Chapter Two for a well-functioning workers' compensation market. It provides insurance to employers that are unable to find coverage in the private market and, thus, is an alternative to the "assigned risk pools" found for other lines of insurance in California. By competing with the private sector, it also provides a form of rate regulation, by helping ensure that the private market does not charge unreasonably high rates for a state-mandated employee-benefit program.[28] The State Fund integrates these two aspects of its mission by making no distinction between employers that come to the State Fund because they are having difficulty finding coverage in the private sector and those that are looking for the most attractive rate. It thus does not attempt to categorize or report financial results separately for employers in the market of last resort and those in the competitive market.[29]

The State Fund's charge to be "fairly competitive with other insurers" can be interpreted in a number of different ways, but we think it important to interpret it as implying that the State Fund should facilitate a competitive market for workers' compensation in the state. Doing so will help encourage innovation in terms of efficiency and service (goal 3 in "Approach to Developing Recommendations" in Chapter Two), including pushing the State Fund to improve its own efficiency and level of service.

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[28] The State Fund is the largest of the 14 "competitive state funds" operating nationally. Other large states with competitive state funds include Texas, New York, and Pennsylvania. Of the remaining 32 jurisdictions (including the District of Columbia), 31 operate what are normally called *assigned risk plans*. (For more detail, see IRMI, 2007.) Figures on the number of competitive state funds vary across sources. Sengupta, Reno, and Burton (2009, p. 17) report that there are 21 competitive state funds. The discrepancies may be due to differences in how *competitive state fund* is defined, but further work is needed to better understand the reason for these discrepancies.

[29] The 2003 Hays Companies report recommended the creation of "a separate and distinguishable account within the State Fund for the purposes of monitoring and pricing those risks written as a residual market" (p. 81). We view this recommendation as unnecessary and not particularly feasible in an open-rating setting. In an open-rating setting, it is not obvious how to define the market of last resort, because employers presumably should be able to obtain coverage at some (perhaps very high) price.

A healthy, financially solvent State Fund is an important part of a well-functioning workers' compensation market in California. However, it is also critical that the State Fund further the goals described in Chapter Two. It is hard to argue that the State Fund did not veer from the goal of maintaining a competitive market when it allowed the prices of its larger policies to fall below the expected loss and loss-adjustment costs during the years following the move to open rating.[30] In the past several years, there has been substantial improvement at the State Fund. There is now a better governing structure and a better management team. As shown in Figure 4.3, the State Fund market share has returned to roughly 20 percent. We thus do not think it necessary to suggest major reforms in State Fund operations. However, we do suggest a few changes that might increase discipline in the State Fund's pricing practices.

Recommendation 14: Publicly Release the State Fund's Ratio of Charged Premium to Modified Pure Premium, by Size of Account. Reporting these ratios would allow better oversight of the State Fund's pricing practices for different-sized accounts. State Fund prices for different business segments should reflect the cost of providing coverage to those segments. Data on the ratio for different account sizes would allow regulators and policymakers to assess whether there are cross-subsidies across different account-size categories and whether the rates are adequate to cover costs.[31]

Recommendation 15: Increase State Fund Staffing Flexibility. As a state agency, the State Fund is subject to civil-service requirements, and it can be difficult to adjust staffing to changing market conditions. As discussed earlier in this chapter, concern about losing market share may have been a factor in the State Fund becoming more aggressive in a soft market. It is important to remove incentives for the State Fund to price more aggressively in a soft market; such incentives may be created by the desire to maintain enough premium volume to support a fairly inflexible staffing level. The State Fund might consider setting a permanent staffing level required for a relatively low market share—say, 10 percent—and then meet additional needs using temporary staff and contracts.

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[30] The California Insurance Code states that rates for private insurers "shall not tend to create a monopoly in the market." Rates are

> presumed to create a monopoly in the market if the insurer has a market share, based on a percentage of statewide workers' compensation premium, equivalent to 20 percent or more of the premium written by all insurers other than the State Compensation Insurance Fund. (§11732)

[31] We do not make a similar recommendation for the private insurers writing workers' compensation in the state. Some might argue for a level playing field, but, as a government organization that is exempt from federal taxes, not required to make a normal profit for its investors, and, by far, the largest player in the California market, it does not seem inappropriate to make special requests of the State Fund.

CHAPTER FIVE

Problems with Reinsurance

A financially sound but competitive reinsurance market is particularly important for workers' compensation insurers. It is of particular importance because, unlike almost most other forms of insurance, there is no policy limit on a primary workers' compensation policy.[1] During the period following open rating, workers' compensation insurers significantly increased their reliance on reinsurance. While reinsurance is a critical part of a well-functioning, competitive workers' compensation market, the particular reinsurance arrangements that arose during this period contributed to at least some of the insolvencies.

This chapter explores the ways in which reinsurance contributed to the insolvencies and provides some recommendations that may help mitigate the downsides of reinsurance while maintaining its benefits.

The Problem

The workers' compensation reinsurance market changed importantly in the mid-1990s with the entry of several large life insurers that wrote reinsurance treaties that provided reimbursement for the health and disability losses resulting from workers' compensation accidents.[2] With the assistance of innovative reinsurance brokers, the life underwriters offered workers' compensation insurers very low retentions—in many cases, equaling a small fraction of what they previously retained.[3] The pricing offered for this protection was recognized to be far below normal. Accord-

[1] Insurers purchase reinsurance to spread risks and reduce their exposure to large or catastrophic losses. Insurers also purchase reinsurance to increase the policy limits they can provide and the amount of direct premium that can be written. The availability of reinsurance enhances competition by allowing smaller insurers to compete with larger ones. Appendix C provides some background on the reinsurance industry.

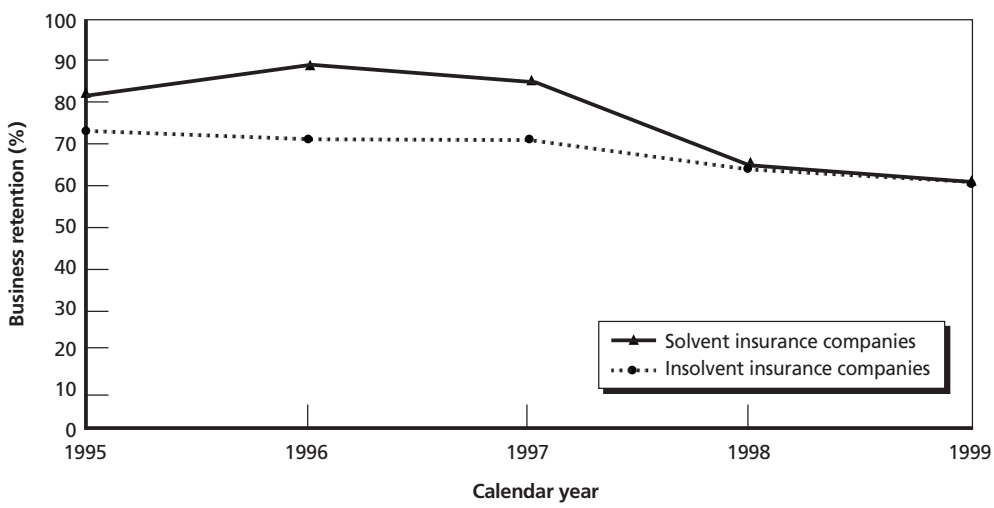
[2] These policies were often referred to as *carve-out* policies because they did not cover other employer casualty losses that are typically covered by standard workers' compensation policies.

[3] In some cases, reinsurance could be purchased above a retention of only $25,000 per accident. The workers' compensation insurers we reviewed had previously retained at least ten times this amount. Retentions of $350,000 and higher per accident were not uncommon.

ing to one study, the prices were often 50 percent or less of what would be charged in the traditional market (Hays Companies, 2003, p. 100), and, in the experience of one insurer interviewed for this study, prices were discounted 90 percent from typical levels. According to some of those interviewed, the life insurers were willing to accept such low rates in part because they did not understand the workers' compensation market and in part because the poor loss experience following open rating had not yet emerged when the decisions were made to enter the market. In addition, some of those interviewed also commented that reinsurers were told that they were covering only a small part of the risk even when the contract indicated otherwise.

Many (but not all) of the state's workers' compensation insurers decided that the low rates were an offer that they could not refuse and increasingly took advantage of the low-cost reinsurance. Figure 5.1 shows the business-retention percentage for our sample of solvent and insolvent insurers. The business-retention percentage is the percentage of the premium retained by the primary insurer and not ceded to reinsurers. It is thus a measure of the risk retained by the primary insurer. The average retention for the selected insolvent groups for which data were available between 1995 and 1999 fell from 73 percent in 1995 to 61 percent in 1999 and is lower than that for the eight selected solvent groups through 1997.[4] Figure 5.1 suggests that the solvent insurers also took advantage of the attractive reinsurance

Figure 5.1
Business Retention of Selected Solvent and Insolvent Insurers



SOURCE: A. M. Best Company (2000a).

RAND *MG949-5.1*

[4] The number is based on data for six insolvent groups and eight of the solvent groups.

deals during this period, with the average retention matching that of the insolvent groups in 1998 and 1999. The reader should note that changes over time and the differences between solvent and insolvent insurers are only suggestive. Analysis of statistical significance has not been done, and the number of observations on which Figure 5.1 is based is not large.

The increased use of reinsurance following the advent of open rating does not necessarily imply that it contributed to the subsequent insolvencies. In this section, we review the experiences of two large insurers that relied extensively on reinsurance to illustrate the problems that reinsurance can create: the Fremont Compensation Insurance Group (Fremont) and the Superior National Insurance Group (Superior).

Fremont Compensation Insurance Group

Fremont relied increasingly on reinsurance following open rating. The amount of workers' compensation business retained dropped from 99 percent in 1995 to 76 percent in 1998 and 78 percent in 1999. During this interval, reinsurance recoverables as a percentage of policyholder surplus more than tripled, from 64 percent to 201 percent (A. M. Best Company, 2000a, p. 1902).

Fremont was able to reduce its exposure to the losses with the reinsurance it bought during this period. In 1998 and 1999, the attachment point dropped to $50,000 per occurrence from the $1 million that had previously been in place (CDI, 2001b, p. 20). Thus, Fremont retained only the first $50,000 in losses per occurrence, with reinsurers, in principle, reimbursing Fremont for any additional payments.[5]

According to those interviewed who are very familiar with the Fremont insolvency and liquidation, Fremont violated the spirit of the reinsurance treaties. It reportedly began to price its policies as though the maximum loss on the policy were $50,000 (so called *net-line pricing*).[6] Reinsurers receive a percentage of the premium collected, and this net-line pricing reduced the adequacy of the revenue received by the reinsurers. While not specifically prohibited in Fremont's reinsurance contract, some argued that the net-line pricing was at least contrary to the spirit of the contract. Some of our interviewees also stated that Fremont managers intentionally instructed its underwriters to go after higher-severity risks than it had previously written; however, we have not been able to verify the extent to which this actually occurred.

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[5] An insurer with reinsurance retains responsibility for making all claim payments but then collects funds from the reinsurer as prescribed in the reinsurance contract (or, as commonly referred to, *treaty*).

[6] *Net-line pricing* refers to pricing a policy as though payments on the policy were capped at the reinsurance attachment point. So for example, if an insurer were responsible for losses up to $50,000 per occurrence and then were reimbursed for any additional losses by the reinsurer, the insurer would price the policy as though the maximum loss were $50,000.

These reinsurance treaties undoubtedly contributed to the Fremont Group's rapid growth and the low pricing following open rating. In 1998, Fremont's rates averaged 84 percent of pure premium, dropping to 73 percent of pure premium in 1999. Premiums written in the California workers' compensation market fell by 22 percent between 1995 and 1998, before jumping 42 percent between 1998 and 1999 (CDI, 1996a, 1997, 1998, 1999, 2000a). In 1999, the year before it signed a letter agreement of regulatory oversight with the CDI, the Fremont Group collected $517 million in premium from California employers.

Reinsurers became aware of the changes in Fremont's pricing and underwriting and initiated arbitration proceedings. In February 2000, Fremont reached an agreement with Reliance, one of its reinsurance carriers, to rescind the treaty that had been in effect from January 1998 through December 1999 (CDI, 2001b). Fremont received $116 million from Reliance but had to increase the reserves for loss and loss-adjustment expenses by $191 million. The net effect of rescinding the treaty was thus that Fremont's policyholder surplus decreased by $75 million (CDI, 2001b, p. 23). Fremont's financial condition deteriorated rapidly. The letter agreement of regulatory oversight signed in November 2000 substantially restricted Fremont's operations, and the group was formally conserved in June 2003.

Superior National Insurance Group

Superior's major workers' compensation underwriter, California Compensation Insurance Company, demonstrated a similar trend in reinsurance usage, with business retention dropping from 94 percent to 41 percent between 1995 and 1998. During the same period, reinsurance recoverables more than doubled as a percentage of policyholder surplus, from 53 percent to 117 percent.

In May 1998, Superior entered a quota-share reinsurance contract with U.S. Life Insurance Company with low retentions. The treaty, which went into effect May 1, 1998, ceded 100 percent of the premium and liabilities to U.S. Life for the remainder of 1998, 93 percent in 1999, and 87 percent in 2000 (CDI, 2000b, p. 10).[7] The reinsurers provided a 34-percent ceding commission to Superior. This commission was well in excess of the expenses of selling the policies, and it helped to reduce Superior's total expense ratio from 29.7 percent in the prior year to only 14.1 percent in 1998 (A. M. Best Company, 1999b, p. 638).

During this period, Superior's written premium was shrinking modestly, but it was nonetheless pricing low: at 84 percent of pure premium in 1998 and 81 percent of pure premium in 1999. The high ceding commission, combined with the low premiums, guaranteed that U.S. Life would lose a tremendous amount of

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[7] U.S. Life could unilaterally terminate the contract after three years, but the treaty covered five years. In the fourth year, Superior's retention could range anywhere from 0 to 80 percent and, in the fifth year, from 0 to 73 percent. The reinsurance treaty applies to Superior's business policies with an estimated annualized premium volume of $25,000 or greater (CDI, 2000b, p. 9).

money on the contract. By the fall of 1999, losses started to exceed the premium, and U.S. Life began to delay payments. In November 1999, U.S. Life sought an order for arbitration, alleging fraud in the inducement of the contract (in part because Superior allegedly did not provide all relevant documents when the contract was being negotiated). The arbitration remains ongoing, with the CLO standing in the place of Superior.

The disputes with reinsurers and delays in reinsurance payments strained Superior's liquidity. This problem was aggravated by the insurer's aggressive reliance on debt and its high gross leverage. To increase its cash flow, Superior began a process of commuting its reinsurance treaties to generate badly needed cash. Although this resulted in cash returns, it also increased the liabilities and loss reserves on the insurer's revised balance sheet. By late 1999, Superior was in what would quickly prove to be a terminal tailspin.[8] Superior was taken over by the CDI in March 2000.

Problems Highlighted by Fremont and Superior Experiences

The negative repercussions of reinsurance in this setting were a consequence of Fremont and Superior not having enough of a stake in the ultimate profitability of the policies they wrote, or, as is often said in the industry, not enough skin in the game.[9] The very low reinsurance retentions gave Fremont incentives to reduce prices and relax its underwriting standards. Not only did these actions come back to hurt Fremont, but they created downward pressure on the prices in the market as a whole. According to some of those interviewed, insurers were starting to see the need to increase prices around 1998, but the availability of low-cost insurance with low retentions delayed pricing increases.

For both Fremont and Superior, the reinsurance rates that appeared too good to be true indeed turned out to be so. Once reinsurers realized that their exposure to losses was much greater than they had allegedly been led to believe at the time the contracts were negotiated, they began to delay payments and seek arbitration to suspend or modify the contract terms.[10] Both Superior and Fremont wrote policies on the presumption that reinsurance would reimburse a substantial portion of the loss payments and took credit on their balance sheets for funds that they expected to recover from reinsurers. Once the reinsurance contracts were rescinded or modified, the insurers had to remove these credits from their balance sheets—in effect, bearing a greater share of the costs of the policies. Had the insurers' retained more

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8 For a detailed analysis of Superior's road to insolvency, see Feldman (2000).

9 The misalignment of incentives due to insurance arrangements is often referred to as *moral hazard*.

10 Had reinsurers not renegotiated the treaties, they risked becoming insolvent, with perhaps much the same effect on the insurers with which they did business.

skin in the game, they might have taken more care in their pricing and underwriting decisions.

The experiences of Fremont and Superior also illustrate the damage that naïve capital can have on insurance markets. While infusion of such capital can, in the short term, seem appealing, a fundamental imbalance between revenue and costs will lead reinsurers to search for ways to escape from bad deals. When insurers become very dependent on such reinsurance, even delays in payment can have extremely adverse repercussions for their financial health.

California Department of Insurance Regulatory Authority and Actions Regarding Reinsurance

During the second half of the 1990s, the California Insurance Code gave the CDI authority to review and preapprove reinsurance contracts in two different circumstances. According to Section 1011(c), the commissioner can take over (conserve) a company if that company,

> without first obtaining the consent of the commissioner, has . . . entered into any transaction the effect of which is to merge, consolidate, or reinsure substantially its entire property or business in or with the property or business of any other person.

Thus, an insurer must obtain prior approval for reinsurance contracts that reinsure substantially all of its risk.[11] In 2006, "substantially its entire property or business" was defined as equal to or exceeding 75 percent of an insurer's total premium or total liabilities (California Code of Regulations [CCR] §2303.15), but, in the 1990s, there was no precise definition of what was required.

The CDI also has authority to preapprove reinsurance contracts over a certain size between an insurer and its affiliates.[12] According to California Insurance Code §1215.5(b),

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[11] This section of the California Insurance Code is similar to the fronting regulations that have been adopted in many states. These laws seek to prohibit an insurer that is not authorized to do business in a state from using an authorized insurer to generate business and avoid state solvency and other regulation. For example, North Carolina prohibits any insurer from acting as a fronting company for an unauthorized insurer and defines a *fronting company* as a licensed insurer that, by reinsurance or otherwise, transfers a substantial portion of the risk of loss under the insurance agreements it writes in the state (RAA, 2008, p. 9). Section 1011(c) of the California Insurance Code does not make reference to the licensing status of the parties subject to the agreement, but, by requiring approval of any agreement that transfers substantially all the risk, it covers the most-extreme fronting situations.

[12] "An 'affiliate' of, or person 'affiliated' with, a specific person, is a person that directly, or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, the person specified" (California Insurance Code §1215[a]).

> Reinsurance agreements or modifications thereto in which the reinsurance premium or a change in the insurer's liabilities equals or exceeds 5 percent of the insurer's policyholder surplus . . . may be entered into only if the insurer has notified the commissioner in writing of its intention to enter into the transaction at least 30 days prior thereto, or a shorter period as the commissioner may permit. . . .

According to senior CDI management interviewed for this study, the reinsurance contracts entered into by Fremont and Superior, as well as by most of the other insurers in the late 1990s, did not trigger review under either of these two criteria. First, the deals were not with affiliates. Second, the contracts did not transfer enough of the insurers' business to the reinsurers. Even though the attachment point for Fremont's reinsurance requirement dropped to $50,000 per occurrence, the CDI estimated that Fremont was still responsible for on the order of 40 to 50 percent of the payment of the policies. In the case of Superior, the CDI acknowledged the low retentions but noted that they did increase over time. The CDI thus did not intervene in the reinsurance deals entered into by Fremont and Superior. Likewise, it did not intervene in the reinsurance arrangements of the other insurers that would eventually become insolvent following the move to open rating.

Following the rash of insolvencies, the CDI adopted more-stringent conditions on reinsurance contracts. In 2006, Section 2303.15 was added to Title 10 of the California Code of Regulations:

> Except for cessions to affiliates, the failure of a domestic insurer or a volume insurer to retain at least 10% of direct premium written per line of business may be grounds for a finding that the insurer's reinsurance arrangements are materially deficient for purposes of [California Insurance] Code Section 717(d).

Section 717(d) specifies the conditions for granting a certificate of authority to do business in the state. Thus, while the regulation does not expand the CDI's prior-approval authority over reinsurance contracts, the CDI can now, in principle, rescind an insurer's certificate of authority if it enters into reinsurance treaties that cede more than 90 percent of the premium. The regulation only applies to insurers that are domiciled in the state and insurers domiciled elsewhere but that do a sizable share of their business in the state (so-called *volume insurers*).[13]

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[13] The commissioner does have discretion to approve a lesser percentage upon demonstrated business necessity. The definition of *volume insurer* is very similar to that of *commercially domiciled insurer* (see 10 CCR §2303.2 for the former; the latter is defined in Chapter Four).

Recommendations for Improving Performance of Reinsurance Markets

The reinsurance arrangements in place in the second half of the 1990s directly contributed to the insolvencies of major workers' compensation insurers, as well as to the low pricing following open rating. Our diagnosis of the problem highlights situations in which insurers do not maintain enough of a stake in the ultimate profitability of the policies they write. It also points to situations in which reinsurers are naïve about workers' compensation or far detached from the underwriting practices of the ceding companies. The recommendations in this section attempt to address these issues without undue burden on the reinsurance market. Overly aggressive regulation of the reinsurance markets is unwise first because reinsurance contracts can be exceedingly complex and difficult to understand. It would be difficult and expensive to develop the regulatory staff to effectively monitor reinsurance contracts. Second, a dynamic, innovative reinsurance market is important to a well-functioning workers' compensation market. The regulatory structure should not unduly dampen this dynamism.

Recommendation 16: Evaluate Adequacy of Current Risk-Retention Requirement and Enforcement Mechanism. Policymakers and regulators should assess the adequacy of the current requirement that insurers retain at least 10 percent of the risk in a reinsurance transaction. Ten percent seems quite low, and lower than the 25 percent recommended in the 2003 Hays Companies (2003, p. 101) study.[14] Such an assessment should consider the level of risk retention necessary to induce insurers to underwrite as though they were putting their own money at risk. Low pricing can result in inadequate premium being passed on to reinsurers to cover expected losses, setting the stage for future disputes. Requiring higher retentions for insurers that are pricing below modified pure premium should also be considered. In addition, the mechanisms for enforcing the risk-retention requirements should be evaluated. The current regulation allows the CDI to take the extreme step of revoking an insurer's certificate of authority only if the requirements are violated. It may be difficult to justify such an extreme step. Providing the CDI with the authority to issue corrective orders to increase retentions should be considered. Authorizing the CDI to impose fines when retentions are found insufficient or when insurers fail to comply with corrective orders should also be considered.

Recommendation 17: Require Licensed Insurers to Obtain Approval Before Entering the Reinsurance Business. Licensed insurance companies are generally

[14] Fronting regulations, which seek to limit the transfer of risk from licensed insurers to unlicensed insurers, have a higher threshold in some states. In Florida, for example, an insurer is considered to be a fronting company if it transfers more than 50 percent of the risk to one unauthorized insurer (retains less than 50 percent of the risk) or more than 75 percent to two or more unauthorized insurers (retains less than 25 percent of the risk) (RAA, 2008, p. 3).

free to enter the business of assumed reinsurance in the lines in which they are licensed. The resulting ease-of-entry issue presents a recurring challenge, as reinsurers with little experience in the market (so-called *naïve capacity*) comes and goes, often leaving insolvent insurers in their wake. Policyholders and regulators should consider establishing a preapproval process that would require a business plan explaining the rationale for the market entry, the planned net retentions by line, the experience and qualifications of the staff who will produce and underwrite the business, and the details on retrocessional markets supporting the business.

CHAPTER SIX

Problems with Managing General Agents

Like reinsurers, MGAs and the delegated-authority business more generally play an important role in the workers' compensation insurance marketplace.[1] There are two basic reasons that insurance companies engage MGAs. An MGA can provide the underwriting, loss-control, or claim-management abilities that would be costly or difficult for the insurer to develop in-house. Second, an MGA can have a marketing network that offers the insurer a better opportunity to write business than is otherwise available through its normal production sources.

MGAs were active both in the primary California workers' compensation insurance market following open rating and in the reinsurance markets to which the primary carriers turned.[2] While many of those interviewed for this study stated that there are responsible MGAs who have performed well over time, the actions of some MGAs exacerbated the volatile market conditions following open rating and contributed to some insolvencies.

This chapter explores the problems exacerbated by MGAs following open rating and provides recommendations about how the potential for such effects might be reduced moving forward.

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[1] *Delegated-authority business* refers in general to any agreement enabling a representative of the insurance company to produce, underwrite, and commit an insurer to a specified type of policy (see U.S. House of Representatives, 1990). In some cases, these representatives are also authorized to adjust claims and manage the premium-collection and premium-auditing processes. *Managing general agent* is often used when referring to firms in the delegated-authority business, although, in some states, such as California, it has a statutory definition (see "California Department of Insurance Regulatory Authority and Actions Regarding Managing General Agents," later in this chapter).

[2] We are unaware of any reliable data regarding the exact number of MGAs operating in the United States or the amount of premium that is underwritten through them. However, it appears that, at least since the early 1980s, MGAs have underwritten a large percentage of the commercial insurance policies in emerging lines and in lines that emphasize loss-control skills.

The Problem

In many cases, an MGA is compensated through a flat percentage of the total gross amount of premium that is booked in a given year.[3] During competitive phases of the market, like the one from 1995 through 2000, such a compensation scheme can create a conflict between the MGA's growth goals and the insurers' or reinsurers' profitability concerns. MGAs are often given authority to negotiate and bind insurance policies ("given the pen") but are not required to invest in the insurer's balance sheet. Because losses in workers' compensation take many years to develop, the profitability of the policies they write is not clear for at least three or four years.

There are perhaps no better examples of the risks posed by MGAs than the insolvencies of the Legion Insurance Group (Legion) and of the Reliance Group (Reliance). Legion heavily relied on MGAs, and a key contributing factor to Reliance's failure was its relationship with the Unicover MGA. In this section, we review the highlights of each example.

Legion Insurance Group

Unlike almost all of the other California workers' compensation insurers that failed, Legion's business model was founded on the premise that it could succeed by relying on the faithful execution of obligations by unrelated parties, including reinsurers, MGAs, and TPAs.[4] Simply stated, heavy reliance on the delegated-authority business was the strategy they chose, with all its risks and inherent interdependencies.

When it began its operations in 1980, Legion's parent organization focused mainly on risk-financing services targeting large corporations and associations interested in nontraditional ways of insuring their own exposures. At least until 1995, this approach appeared to be working well.[5] As the 1990s progressed, Legion significantly expanded its book of guaranteed-cost insurance that was produced and underwritten by MGAs across the nation.

The California workers' compensation business of Legion and Villanova, the smaller insurer in the group, grew rapidly in the second half of the 1990s. Premium

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[3] Many MGA-compensation schemes also depend in part on the profitability of the business written. Schemes in which the ultimate profitability of the business written plays a meaningful role in the amount of compensation mitigate, to some extent, the issues raised in this paragraph.

[4] When an insurer contracts with a firm solely to manage claims, the firm is often referred to as a *third-party administrator*.

[5] For example, between 1989 and 1993, Legion grew its direct written premium from $79 million to $209 million. The net percentage of business retained actually increased from 18 percent in 1989 to 32 percent in 1993. The combined ratio during these years was excellent, with each year well below 100 percent. However, the insurer's reliance on an increasingly long list of reinsurers increased, and the ratio of reinsurance recoverables to policyholder surplus rose from 258 percent in 1989 to 533 percent in 1993 (A. M. Best Company, 1994, p. 278).

grew 69 percent between 1998 and 1999, 159 percent in 1999, and 69 percent in 2000. By 2000, Legion and Villanova together wrote $292 million in California workers' compensation premium. Pricing was also very low, at 74 percent of the pure premium in 1999 and 79 percent in 2000.

By 2000, there were numerous signs of impending financial distress. Legion's 2000 annual statement revealed the following:

- A total of $138.4 million in reinsurance recoverables were categorized as "in dispute." This included some large amounts with life insurers, including John Hancock, Lincoln National, and Swiss Re Life, as well as several offshore reinsurers. The total equaled about half of the insurer's year-end policyholder surplus.
- Of the total 41 disputes detailed in the footnotes of the Annual Statement, 26 were already in arbitration as of year-end 2000.
- Unsecured reinsurance recoverables equaled 3 percent or more of its policyholder surplus with 49 reinsurers.
- There was unfavorable prior–accident-year loss-reserve development on both one- and two-year bases.

By the end of the decade, it was clear that almost all of the growth was through MGA program business. For example, in its 2000 Form 10-K submitted to the Securities and Exchange Commission (SEC), the insurance group's publicly traded, Bermuda-based parent company, Mutual Risk Management, reported almost 300 active MGA programs in its U.S. insurance companies (Mutual Risk Management, 2001, p. 7). In 2001, the domestic group's flagship insurer, Legion Insurance Company, itemized 19 large MGA programs (with each entailing direct premium exceeding 5 percent of the insurer's capital base) totaling $584 million in premium. Five of these large MGAs were in California, and four wrote workers' compensation (Legion Insurance Company, 2002, p. 14.4). Villanova added another 33 large MGAs, of which 11 were located in California, with ten authorized to underwrite workers' compensation (Villanova Insurance Company, 2002, p. 14.4). In total, MGAs accounted for more than 95 percent of the group's $1.371 billion in its final full year of operation.

Seven of Legion's 19 large MGAs were also granted authority to settle claims. Although this can be a successful approach, giving the same third party the authority to both produce the premium and pay the claims is inherently subject to greater moral hazard and execution risk. We note that the California Office of Self-Insurance Plans, for example, does not allow the same company to act as both a program administrator and the claim adjuster.

In sum, this Philadelphia-headquartered, thinly staffed insurer appears to have authorized 15 MGAs in California to produce and underwrite a large amount

of workers' compensation insurance on its behalf. Legion was ultimately conserved by the Pennsylvania Department of Insurance in April 2002.

Legion did not appear to closely monitor at least some of its MGAs. As discussed more in "California Department of Insurance Regulatory Authority and Actions Regarding Managing General Agents" later in this section, the CDI conducted an examination of two Legion MGAs shortly after the insurer failed. The CDI cited Legion for failing to perform the required audits. In response, Legion reportedly stated that it relied on the audits that reinsurers conducted of its MGAs, but the CDI reported that it never received these reports (CDI, 2003b, p. 24).

Reliance and Unicover

In December 1994, Unicover Managers, Inc., was formed as an MGA operating on behalf of insurance and reinsurance companies.[6] Between March 1995 and December 1997, Unicover formed a pool of five life-insurance companies, formally titled the Unicover Pool. Then, between December 1997 and March 1998, the MGA established new facilities to accept reinsurance with Reliance and Lincoln National. Between March 1998 and January 1999, its fourth underwriting year, the MGA ceded an estimated $2.5 billion in workers' compensation premium to its reinsurers and their retrocessional markets. According to one industry study, the amount ceded through the MGA in that year was about 15 percent of the entire nation's workers' compensation premium (Paine Webber, 1999).

The reinsurance provided through the Unicover pool turned out to be enormously underpriced. In a January 2000 article titled "Passing the Trash," published in *Forbes* magazine, Lenzner explained that, at the front end, an insurer issuing a workers' compensation policy that was ceded to the Unicover pool was expected to lose about $1.25 for every $1 it received in direct premium, not including investment income (Lenzner, 2000). As the risk was transferred down the "daisy chain" of intermediaries to the life insurers ultimately assuming most of the risk, the final payout translated to about $4 for every $1 in ceded reinsurance premium that was received. Ultimately, three of the largest life insurers involved—Cologne, Sun, and Phoenix Life—took in $700 million in premium that presented possible losses of an estimated $2.8 billion. Lenzner quoted one of the insurance industry's leading financial analysts as predicting that the Unicover scheme "is shaping up to be one of the worst scandals in the history of the insurance business."

Reliance passed much of the risk from the Unicover MGA on to retrocessionaires, and disputes with the retrocessionaires sapped Reliance's financial strength. In July 1999, an insurance trade journal reported that Toronto-based Sun Life had filed for an arbitration to void its involvement in the Unicover program ("Sun Life

[6] Much has been written about the Unicover program and its impact on California's workers' compensation insurers. See for example, GAO (2001).

Begins Arbitration to Void Unicover Agreements," 1999). The life insurer argued that "material misstatements and nondisclosures" had been made about numerous issues, including the amount of business that it would be assuming (State of New York Insurance Department, 2004, p. 14). In January 2000, Reliance settled some of the disputes with its Unicover retrocessionaires, at a pretax cost of $171 million (see Dingell and Klink, 2000). This represented more than 10 percent of the year-end group policyholder surplus of $1.247 billion. More than $1 billion in reported additional claims remained unsettled.[7]

In October 1999, three rating agencies placed Reliance under formal review or watch-list status. A. M. Best gave Reliance an "under review with negative implications" status, indicating that its A– rating was at risk. Then, in June 2000, A. M. Best downgraded Reliance from A– to B++. This reportedly put the insurer off the approved list for new or renewal business for some of the more profitable highly specialized niches in which it had established market-leading positions (including director and officers' coverage for real-estate investment trusts and surety bonds related to pollution clean-up costs). Reliance was in a tailspin from which it would not recover. In January 2001, the Pennsylvania Department of Insurance issued an order of regulatory supervision on Reliance.

The reinsurance assumed through the Unicover pool was a significant precipitating factor in Reliance's collapse. Although other issues undoubtedly contributed materially to this insurer's demise (such as the capital-management practices, including inordinately high dividend payments to shareholders), the Unicover reinsurance was a speed bump that contributed to Reliance's fatal tailspin.

Lessons Learned from the Legion and Unicover/Reliance Examples

Legion's failure demonstrated what can go wrong when an insurer tries to, in effect, arbitrage its way through a difficult market by converting itself into an intermediary relying on the good-faith performance and competency of so many interdependent service providers. Without close supervision or contractual arrangements that closely align the incentives of the MGA with the insurer, adverse outcomes can result for the insurer, particularly in a difficult market.

The downfall of Reliance illustrates the failure of a "pass-the-trash" strategy. As risk was transferred to parties ever more distant from the initial transaction, there was less and less oversight of the initial underwriting behavior. Because they ended up with little at risk, intermediate parties could conclude, at least in the

[7] In October 2002, an arbitration panel rendered its decision regarding a joint effort by several of the Unicover life insurers (including Cologne Life and Sun Life) to cancel their obligation to the Unicover pool. According to a financial-examination report by the New York Department of Insurance on one of the life reinsurers, the final decision of the panel was that "the agreement by which the Company (Phoenix Life) provided retrocessional reinsurance to the Unicover Pool was valid only to the extent of business bound or renewed on or before August 31, 1998" (State of New York Insurance Department, 2004).

short term, that the potential for large losses was not their problem, and be happy with the commission they retained. However, monumental loss in the absence of a good understanding of the risk and poorly administered underwriting guidelines is a recipe for litigation. The large losses then indeed become the problem of intermediate parties, such as Reliance.

California Department of Insurance Regulatory Authority and Actions Regarding Managing General Agents

Provisions were added to the California Insurance Code in 1991 that gave the CDI some authority over the use of MGAs. The provisions begin with the following definition of an MGA:

> "Managing General Agent" (MGA) means any person, firm, association, partnership, or corporation [that] negotiates and binds ceding reinsurance contracts on behalf of an insurer or manages all or part of the insurance business of an insurer (including the management of a separate division, department or underwriting office) and acts as an agent for that insurer whether known as an MGA, manager, or other similar term, [that], with or without the authority, either separately or together with affiliates, produces, directly or indirectly, and underwrites an amount of gross direct written premium equal to or more than 5 percent of the policyholder surplus as reported in the last annual statement of the insurer in any one quarter or year together with one or more of the following: (1) adjusts or pays claims in excess of an amount determined by the commissioner, or (2) negotiates reinsurance on behalf of the insurer. (§769.81[c])

In response to the problems with MGAs in the 1980s, the definition focuses on firms that can bind reinsurance contracts on behalf of an insurer and firms that both underwrite policies and pay claims.[8] Excluded by the definition are firms that underwrite policies but do not adjust claims or negotiate or bind reinsurance on behalf of the insurer.

The code requires that MGAs be licensed as a fire and casualty broker-agent or as a life agent in California (§769.82). It requires that there be a written contract between the insurer and the MGA, then places some important limitations and requirements on contract terms (§769.83).[9] For example, an MGA is prohib-

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[8] See U.S. House of Representatives (1990) for a detailed review of MGAs' role in the insurer insolvencies of the 1980s.

[9] "Insurer in this context refers to any person, firm, association, or corporation duly licensed as an insurer and operating under a certificate of authority in the state" (California Insurance Code §769.81[b]). The contracting requirements thus do not apply only to insurers domiciled in California.

ited from paying a claim (without the insurer's permission) that, net of reinsurance, exceeds 1 percent of the insurer's policyholder surplus. An important contract requirement is aimed at increasing the attention that the MGA pays to the ultimate profits and losses that flow from its actions:

> If the contract provides for a sharing of interim profits by the MGA, and the MGA has the authority to determine the amount of the interim profits by establishing loss reserves or controlling claim payments, or in any other manner, interim profits will not be paid to the MGA until one year after they are earned for property insurance business and five years after they are earned on casualty business and not until the profits have been verified pursuant to Section 769.84.

Insurers are required to notify the CDI within 30 days of entering into or terminating an MGA (§769.84[e]) and are required to monitor their MGAs closely: "The insurer shall periodically (at least semiannually) conduct an onsite review of the underwriting and claims processing operations of the MGA" (§769.84).

Given the warning signs at Legion, one might think that the CDI would have performed market-conduct exams of Legion, focusing on at least some of its MGAs. However, as shown in Table 4.2 in Chapter Four, a market-conduct exam was not performed until after Legion was seized by the Pennsylvania Department of Insurance in the spring of 2002. In addition, there does not appear to be any indication that the CDI or the department of insurance for Pennsylvania (where Legion is domiciled) required Legion to regularly conduct on-site audits of its MGAs prior to conservation. In a market-conduct exam performed after the insurer was conserved, the CDI cited Legion for failing to conduct audits of its MGAs during its regularly scheduled financial exams (CDI, 2003b, p. 24).[10]

Recommendations for Improving the Performance of Managing General Agents

MGAs are agents of insurers, and, in principle, one would expect insurers to effectively monitor their performance. However, in an insurance line like workers' compensation, for which outlays on a claim can occur over a long period of time (a long-tailed line), the consequences of MGA performance will usually not become clear for at least three or four years. There are a lot of fees to be generated in the meantime, and it is easy for both insurers and MGAs to gloss over the details of a contract or compliance with its terms. While the 1991 additions to the insurance

[10] Because Legion is a Pennsylvania-domiciled company, the financial exams were performed by the Pennsylvania Department of Insurance.

code moved in a positive direction, the role of MGAs in the insolvencies of the 1990s suggests that refinements should be considered. In this section, we make recommendations that aim to increase the MGA's stake in the insurer's or reinsurer's profitability and to increase the care with which insurers monitor their MGAs.

Recommendation 18: Broaden Definition of *Managing General Agent* to Include Firms That Take on Substantial Roles in Underwriting or Paying Insurance Claims. According to CDI staff and some of the insurers interviewed, insurers and firms in the delegated-authority business are able to game the MGA definition in the California Insurance Code so as to avoid being legally classified as an MGA. For example, a firm acting on behalf on an insurer might do everything to underwrite a policy except actually bind the policy. Or, a firm might carefully define its role so that it does not both bind contracts and either negotiate reinsurance or pay claims. The result appears to be that the MGA regulations do not have much bite. Policymakers and regulators should consider how to broaden the MGA definition to capture a substantial share of the firms that, in effect, take on the functions of an insurer. It will always be difficult to prevent creative efforts to circumvent the intent of the definition, and the definition should be regularly reviewed to close loopholes that have become evident.

Recommendation 19: Augment the Requirements on MGA Contracts to Give MGAs More Skin in the Game. The California code requires that profit sharing between insurers and MGAs be delayed, under certain circumstances, until claims age. Policymakers and regulators should assess whether the current language is sufficiently broad to apply to most circumstances in which insurers delegate important underwriting or claim-payment authority to outside firms. Other changes should also be considered to give MGAs more of a financial interest in the profitability of the business they underwrite. For example, MGAs, not the insurer, might be required to pay penalties leveled during CDI field rating and underwriting exams.

Recommendation 20: Enforce Requirements That Insurers Regularly Audit Their MGAs. Current code requires semiannual on-site review of the underwriting and claim-paying operations of an MGA. The CDI should monitor whether insurers are complying with this requirement and whether the audits meet minimum standards. If insurer audits fail to result in adequate oversight of MGA performance, the CDI might consider directly examining MGAs.

CHAPTER SEVEN

Underreserving

The discovery that an insurer's reserves for loss and loss-adjustment expenses must be increased is often the proximate cause of insolvency. Insurers either realize on their own that existing reserves are inadequate to cover expected claim costs or are required to increase reserves as a consequence of a financial audit by the state regulator. Increasing reserves depletes policyholder surplus and can push the insurer into insolvency.

When workers' compensation benefits are stable, insurers may need to make only relatively minor adjustments in reserves over time, at least in the aggregate across all their claims. However, when benefits are changing in unexpected ways, it is necessary and appropriate for insurers to adjust their reserves. While these adjustments can lead to insurer insolvency, adjustments to reserves that were initially set given the best information then available are not the subject of this chapter. Rather, the concern here is insurers' systematic underreserving that is only uncovered through financial examinations by the CDI or by state regulators, reinsurers, or other independent parties. This systematic underreserving is pernicious first because it contributes to continued underpricing. An insurer's rates are typically tied to reserve requirements, and, if reserves are too low, rates will continue to be low. Second, underreserving makes the insurer appear more financially sound than it actually is, allowing the insurer to remain in business and potentially leading to a larger insolvency than would have occurred otherwise.

Insurance regulators have put in place requirements meant to deter and detect underreserving. The CDI conducts regular financial exams to assess reserve levels, and, since the early 1990s, each insurer has been required to submit an opinion from a qualified actuary with its annual statement, attesting that its reserves are adequate.[1] Insurers domiciled in the state are also required to submit the results

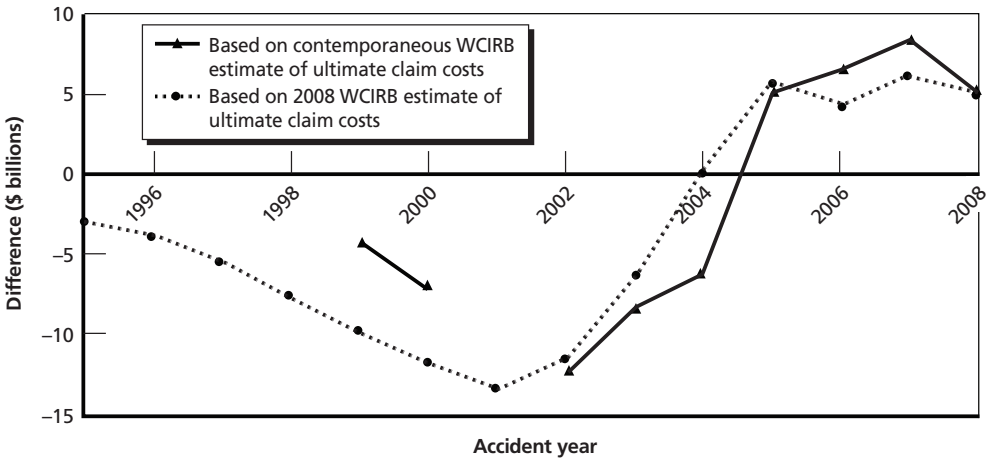
[1] Annual actuarial opinions were required as a response to the 1990 Dingell report (U.S. House of Representatives, 1990). Section 730(b) of the insurance code authorizes the insurance commissioner to conduct a financial examination as often as he or she deems appropriate but requires the commissioner, "at a minimum, [to] conduct an examination of every insurer admitted in [California] not less frequently than once every five years."

of an independent audit to the CDI annually. An assessment of reserve adequacy is part of these audits, and actuaries are often involved in the preparation of the audits. In the remainder of this chapter, we examine the prevalence of underreserving in the years leading up to the insolvencies and the reason that the system for ensuring that reserves are adequate broke down. We then make recommendations for how this system might be improved.

The Problem

Analyses by the WCIRB suggest that there was substantial underreserving by California workers' compensation insurers following open rating. In 1999, the WCIRB began calculating the difference between the losses reported by insurers (which include reserves for future claim costs) and its estimate of the ultimate cost of the claims. Figure 7.1 first shows the difference based on the WCIRB estimate of the ultimate cost as of the date on the horizontal axis. For example, the WCIRB found that reported losses industry-wide for all injuries that occurred on or before December 31, 2000, were $7.1 billion less than its estimate of ultimate losses based on the information available in 2000. The second data series in the graph shows the difference using WCIRB estimates of ultimate losses for injuries that occurred up through the date on the horizontal axis based on the information available in 2008. For the purposes of this chapter, the relevant difference is the one between

Figure 7.1
Difference Between Reported Insurer Losses and Estimated Ultimate Losses



SOURCES: WCIRB (2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008a, 2009a).
NOTE: The difference based on the contemporaneous WCIRB estimate of ultimate losses is not available for 2001.
RAND *MG949-7.1*

reported reserves and the contemporaneous estimate of ultimate cost. In 2002, the difference grew to –$12.4 billion, larger than the $10.88 billion in California workers' compensation premium written that year.

This large amount of underreserving occurred despite the fact that an actuary confirmed that the reserves of each insurer were reasonable. The language in the actuarial opinion submitted with the 1999 annual statement for Fremont Indemnity Company is typical:

> In my opinion, based on the foregoing procedures, the Company's December 31, 1999 statutory-basis loss and loss adjustment expense reserves identified herein:
>
> - Make a reasonable provision in the aggregate, before any consideration of the discount for the time value of money, for all unpaid losses and loss adjustment expenses, gross and net as to reinsurance ceded, under the terms of the Company's policies and agreements.
> - Are consistent with reserves computed in accordance with standards and principles established by the Actuarial Standards Board.
> - Are computed on the basis of similar general methods as used at December 31, 1998.
> - Have been discounted at a rate in a manner prescribed by the relevant states of domicile of the various affiliated pool members.
> - Meet the relevant requirements of the insurance laws of California. (Rainey, 2000)

For several of the eight insolvent insurers selected for detailed study, large reserve deficiencies were discovered only through a CDI financial examination.

- In its 1996 examination of Golden Eagle, the CDI concluded that reserves as of December 31, 1995, were deficient by $138 million (CDI, 1996b).
- The 2000 examination of Superior National Insurance Company concluded that reserves as of December 31, 1999, were deficient by $411 million (CDI, 2000b).
- The CDI concluded in its 2001 examination that reserves of the Fremont Compensation Insurance Group as of December 31, 1999, were deficient on a net basis by $670 million (CDI, 2001b).

The findings for Fremont were clearly at odds with the actuarial opinion just quoted (Rainey, 2000) and led the CDI (2001b, p. 30) to remark in its Fremont

examination report that substantial deficiencies were found "despite the fact that the Company had received unqualified actuarial opinions for all the years under examination."[2] The actuarial opinions for Superior National and Golden Eagle were similarly clean.

The State Fund provides another example of what appears to be substantial underreserving in spite of clean actuarial opinions. In a 2007 financial exam, the CDI found that the State Fund's "direct loss reserves for accidents years 2003 and prior were found to be deficient by approximately $3.3 billion." In addition, the report noted that the CDI had previously found that reserves through the end of 2005 were deficient by approximately $1.1 billion (CDI, 2007b, p. 22). This deficiency was found despite an unqualified actuarial opinion submitted with the State Fund's 2005 annual statement.

To be sure, there were many companies that raised their reserves at their own initiative as loss costs increased following the *Minniear* decision. Among the insolvent companies we examined, PAULA and Western Growers provide good examples.

Between 1998 and 2001, PAULA increased reserves every six months. According to both the CDI and parties familiar with PAULA, these increases were never based on CDI reviews but rather on actuarial assessments performed on behalf of PAULA management. Ultimately, the self-imposed reserve increases pushed PAULA into insolvency: Its actuaries raised required reserve estimates by another $34 million in 2001, and PAULA could not fund the increase. PAULA's management subsequently informed the CDI that the company was insolvent.

Western Growers voluntarily ceased writing workers' compensation policies in the fourth quarter of 2000. At the time, its actuary (Milliman) estimated that $14 million would be adequate to cover the ultimate costs of the outstanding claims. Milliman updated the required level of reserves, first by $1.5 million and then by $0.4 million, and Western Growers was able to find the funds to cover the increases. Then, in July 2002, Milliman found that escalating medical costs required another increase, this time coming to $4.4 million. Western Growers was not able to infuse more capital and subsequently notified the CDI that it was insolvent. As in the case of PAULA, CDI actions did not precipitate this chain of events. Western Growers was ultimately conserved in January 2003.

PAULA and Western Growers show that a system in which insurers hire actuaries to assess whether reserves are adequate can work, at least to some extent.[3]

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[2] *Unqualified*, in this context, means that the actuary found no reason to qualify his actuarial opinion by questioning that the reserves were reasonable.

[3] As shown in Table 2.2 in Chapter Two, the PAULA and Western Growers insolvencies did eventually result in $124 million and $35 million in CIGA payments, net of recoveries from estates and the statutory deposit through 2008, respectively. Thus, the reserve estimates appear to have remained low, although part of the increase could have been due to escalating claim costs subsequent to the actuarial estimates.

However, the Golden Eagle, Superior, Fremont, and State Fund examples and the WCIRB estimates of industry-wide reserve deficiency suggest that the current system set up to validate reserves can break down, with disastrous consequences.

Reasons for the Breakdown in Actuarial Oversight

There are number of reasons that actuaries may declare reserves reasonable when they are, most likely, not. First, insurers hire and pay actuaries and auditors and can change actuaries or auditors if they do not like the findings. Events at the State Fund provide an example of such behavior. According to those very familiar with the actuarial review of State Fund reserves, the State Fund's outside auditor wrote an adverse opinion on the adequacy of the State Fund's reserves in 2002, arguing that reserves were low by $1 billion. The State Fund fired the auditor and hired a new auditor, who subsequently determined that reserves were adequate. Throughout this period, the State Fund's appointed actuary found the reserves to be adequate. For this very reason, the CDI takes note when an insurer changes actuaries or auditors.

Pressure to rubber-stamp an insurer's reserve levels presumably increases if the actuary's firm has multiple business relationships with the insurers. For example, a firm might provide actuarial services to an insurer as well as consulting on the insurer's business operations. Concern that an adverse actuarial opinion may jeopardize these other business contracts may increase incentives to approve management reserve estimates. Similarly, actuaries who are employed by the insurer may be less likely to take a critical look at the insurer's reserve estimates. An outside actuary with multiple clients might be able to afford to lose a client now and then, but the threat of losing one's job, or failing to be promoted, may be of greater concern.

Actuaries typically do not assess whether the reserves are reasonable that have been posted for individual claims. Rather, they rely on data provided by the insurer on claim frequency, outlays to date, claim reserves, and reserve-development factors (changes in reserves over time). Thus, the actuary may not be aware of changes in claim-reserving practices, and failure to catch such changes may cause distortions in estimates of ultimate claim costs.[4] Insurer manipulation of reserve levels does occur. One insurer who was interviewed recalled a case in which management cut reserves by 2 percent across all claims to make the financial statement look better. Without an independent assessment of the adequacy of reserves on a statisti-

[4] By using reserve-development factors based on past changes in claim reserves, an actuary can account for a stable tendency (that is, the company regularly posts reserves that are inadequate, and the percentage by which they are too low remains stable over time) to post inadequate reserves.

cally valid sample of individual claims, an actuary may be unaware that reserving practices have changed.

Recommendations for Improving Reliabilty of Actuarial Opinions

Among some of those we interviewed, there was a sense that the independence and objectivity of actuaries has improved in recent years. The Actuarial Standards Board has been actively adding to and revising its actuarial standards of practices. There are now 41 standards, 27 of which have been added or revised since 2000 (Actuarial Standards Board, undated). According to some of those interviewed, this and other initiatives by actuarial professional societies have improved the quality and objectivity of actuarial opinions. Some interviewees also believe that the federal Sarbanes-Oxley law (Pub. L. 107-204, 2002) has helped curb some of the excesses of the past.[5] In their view, Sarbanes-Oxley has encouraged some insurance-company executives to promote independent and objective actuarial assessments.

It is difficult to know whether these and other recent changes will significantly reduce the likelihood that actuaries will opine that reserves are reasonable when they clearly are not. Situations could still arise in which actuaries have incentives to give less-than-objective assessments. The following recommendations aim to reduce the chances that such situations could arise:

Recommendation 21: Require That Actuarial Opinions Provide Additional Information. Currently, the actuarial opinion states only that the reserves are reasonable. Requiring more information could increase the care with which actuaries prepare opinions and the confidence in the findings. For example, actuarial opinions might be required to contain a range of reserve projections using various projection methods. Opinions might also document the accuracy of the reserve projections in past opinions and identify the actuary who prepared those projections. Companies whose reserve projections are consistently low or that use actuaries who perform worse than average might be subject to greater scrutiny from the CDI.

Recommendation 22: Require That Actuarial Opinions Review Reserves for a Sample of Claims. Auditing a statistically valid sample of claims would allow actuaries to confirm whether there have been changes in reserving practices. Audits might be required only if the insurer's risk-based capital ratio falls below a certain

[5] The Sarbanes-Oxley Act of 2002 (Pub. L. 107-204) is also known as the Senate Public Company Accounting Reform and Investor Protection Act and the House Corporate and Auditing Accountability and Responsibility Act. Among other things, it requires that senior executives take individual responsibility for corporate financial records. It also establishes standards for the independence of external auditors. The law applies only to public U.S. companies—it does not apply to privately held companies.

level or the share of the insurer's overall business in California workers' compensation exceeds a certain level.

Recommendation 23: Consider Requiring the CDI to Appoint and Pay Actuaries. Policymakers and regulators should consider how best to reduce potential conflicts of interest in the preparation of actuarial opinions. One possibility would be to change the actuary's customer. Instead of being hired and paid by the insurer, the actuary could be appointed and paid by the CDI. Actuaries would then be accountable to the CDI. The insurer could then be assessed to cover the costs of its actuarial opinion, much as is done now when the CDI appoints an outside actuary or auditor during a financial examination.

Recommendation 24: Review the CDI's Prioritization Scheme for Financial Examinations, and Consider a Mandatory Trigger for Examinations. To assess improvements in the system for ensuring that reserves are adequate, it is important that the CDI continue to regularly conduct financial examinations and reserve studies. The CDI does have a system for prioritizing examinations, although we have not been able to evaluate it. The prioritization scheme should be reviewed. In addition, the development of mandatory triggers for financial exams should be considered. Triggers might be based on premium growth, the reliance on reinsurance, the use of MGAs and TPAs, evidence of past underreserving, or the ratio of charged premium to modified pure premium. Such mandatory triggers would help ensure that the adequacy of reserves is assessed in a timely manner. To reduce the costs and burden of these reviews, the CDI might, in some cases, audit only reserves as opposed to conducting a full financial exam. It also might consider piggybacking reserve audits on the claim-payment reviews conducted by DIR.

Recommendation 25: Impose Penalties for Inadequate Reserving. Currently, no penalties are assessed if a CDI financial exam reveals substantial underreserving. Policymakers and regulators should consider establishing fines that are sufficient to deter such behavior from recurring or occurring in the first place. In addition to fines, requiring insurers to submit written response plans and conduct more-frequent examinations should be considered for insurers that have underreserved.

CHAPTER EIGHT

Inadequate Surplus Cushion

Insurers become insolvent when the policyholder surplus they hold is inadequate to cover adverse events. Adverse events include events that can be largely outside the control of the insurer, such as unexpected increases in claim costs due to legislative or judicial developments, difficulties in collecting reinsurance, and abrupt declines in asset values. From the regulator's point of view, they can also include actions under the insurer's control, such as underreserving, pricing below the anticipated cost of the claims, and poor asset management.

The RBC system is the system currently in place to determine whether an insurer has sufficient policyholder surplus to cover adverse events. This system was not fully in place during the period leading up to the insolvencies following open rating. This chapter describes the RBC system, assesses how it would have performed had it been in place during the period leading up to the insolvencies, and provides recommendations for how the system might be improved.

The Problem

The policyholder surplus held by the insurers that ultimately became insolvent did not provide an adequate cushion for the adverse events that led up to their insolvencies. As evidenced by the large CIGA payments following the insolvencies (see Table 2.3 in Chapter Two), the assets of these insurers turned out to be billions of dollars short of their liabilities.[1]

The NAIC has developed a system for determining how much policyholder surplus a property-casualty insurer should hold and what regulatory actions are appropriate should policyholder surplus fall below the target. In December 1993, the NAIC adopted the RBC standards for property-casualty insurers. At the time, the standards were considered a major advance in the solvency regulation

[1] In addition to amounts due policyholders, liabilities of insolvent insurers include amounts due to vendors and other creditors. Thus, the magnitude of CIGA claim payments reflects only part of the gap between the insurer's liabilities and assets at the time of insolvency.

of property-casualty insurers (Feldblum, 1996, p. 298). The California legislature applied the RBC system to insurers domiciled in the state in 1996 (SB 1179). The NAIC strengthened in the RBC requirements in subsequent years, and the state adopted the enhanced version in 2007 (AB 796).[2]

The RBC system was thus not fully in place during the period leading up to the insolvencies. In this chapter, we examine what regulatory actions would have been indicated had the current system been in effect leading up to the insolvencies. While solvency regulation at the CDI has multiple components,[3] we focus on RBC because it provides the most-direct authority to conserve an insurer, and it has become a primary solvency-regulation tool.

The Risk-Based Capital Requirements

The RBC system has two main components: (1) the RBC formula, which determines a target level of capital for each insurer, and (2) a set of actions that the insurance commissioner must take when an insurer's capital falls below specific levels relative to the target level.[4]

Nearly all states have adopted some version of the NAIC RBC system. By March 15 of each year, each insurer is required to report, to the insurance commissioner of its state of domicile, its RBC level as of the end of the previous calendar year (California Insurance Code §739.2).[5]

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[2] Between 1996 and 2002, the RBC requirements formally applied to insurers that wrote workers' compensation only if the insurer also wrote other lines that were subject to the regulations. Thus, they did not apply to monoline workers' compensation insurers or multiline insurers that wrote workers' compensation and other lines not subject to the RBC requirements. Senior CDI staff believe that the initial exclusion of workers' compensation from the RBC requirements was a legislative drafting error rather than a deliberate decision by the legislature and was remedied in 2002 (AB 1985). They also said that the CDI acted as though it had authority during that 1996–2002 time frame to apply the RBC system to workers' compensation insurers and that no insurer challenged the CDI on this issue.

[3] In addition to monitoring RBC, solvency oversight at the CDI involves assessing the adequacy of reserves, reviewing the NAIC Insurance Regulatory Information System (IRIS) ratios (a dozen financial ratios that can raise a red flag if more than a few are out of their normal range), and assessing the quality of insurer assets, reinsurance arrangements, intercompany financial transfers, and transactions with holding companies.

[4] Feldblum (1996) uses the term *capital* rather than *policyholder surplus* in his detailed explanation of the RBC formula, and we follow that convention in describing the formula here.

[5] The NAIC has developed a spreadsheet that an insurer can use to make its RBC calculations (see NAIC, 2008b).

The Risk-Based Capital Formula

The RBC formula develops capital charges for various types of risk faced by an insurer. To determine the target level of capital for an insurer, the charges are summed, adjusting for the potential correlation between different types of risk. The RBC formula is very complex, and there is much debate over whether the various capital charges are appropriate. Here, we provide a high-level overview of the charges for the main risks addressed by the formula. This overview draws heavily on Feldblum (1996), and the reader is referred to that article for a more detailed description of and the rationale for the different charges.

Asset Risk. The capital charge for asset risk addresses the potential for default or loss of value on fixed-income securities, preferred stocks, common stocks, investments in affiliates, and other types of investments. The charge varies by type of investment and is tied to perceptions of the riskiness of the investment. For example, the charge for unaffiliated common stocks is 15 percent of the value of the stocks. The NAIC set the capital charges using a framework that considers (1) the probability that an asset will decline in value by more than a particular percentage or (2) the probability of default. So, for example, according to Feldblum (1996, p. 310), the NAIC justifies the charge on common stocks by citing "studies which indicate that a 10% to 12% factor is needed to provide capital to cover approximately 95% of the greatest losses in common stock over a one-year future period."

Asset risk also covers investments in affiliates. If an insurer owns a subsidiary insurance company, the RBC charge for the subsidiary is passed up to the parent, one for one (Feldblum, 1996, p. 312).

Credit Risk. The main credit risk addressed is the possibility that reinsurance due the insurer will not be collectible. The charge is 10 percent of the reinsurance recoverables; there is no statistical rationale provided for the magnitude of the charge.

Reserving Risk. Reserving risk is one of the two aspects of underwriting risk that the RBC formula addresses. The charge for reserving risk captures the possibility that reserves will unexpectedly increase. It "guards against the risk that the company's past business will turn out to be less profitable than expected—i.e., that reserves will develop adversely" (Feldblum, 1996, p. 334). The reserve-risk charge does not attempt to capture underreserving in excess of what is typical in the rest of the industry, which, the reader will recall, refers to a situation in which an insurer has posted reserves insufficient to cover estimates of claim costs, as based on information available at that time. In the RBC framework, underreserving is supposed to be prevented or detected by the financial-examination process (see Chapter Seven).

The reserve-risk charge is calculated separately for each line of insurance. First, an industry-wide worst-case reserve development is determined. The worst-case

reserve development is determined using a fixed ten-year period. When the formula was first adopted, the period was 1981 to 1990. Now (approximately 15 years later), it is being updated to a more recent ten-year period, which will remain fixed until the NAIC updates it again.

Industry-wide reserve development from year to year is calculated by first determining the percentage increase in a measure of reserves for each company nationwide for those years (separately for each line of insurance). Then the individual company development percentages are averaged across all companies for each year, and the largest average for the ten-year period is selected (Feldblum, 1996, p. 328).[6] The idea behind this approach is that an adverse reserve development as large as the largest development that occurred in this ten-year period could happen again and that insurers should be able to absorb it.

Conditions in the California market are reflected in the industry-wide worst-case development figure, but it is difficult to assess whether the California experience is reflected to a greater or lesser extent than its share of overall workers' compensation premium written nationwide.[7]

Before the industry worst-case development is used to determine the reserve charge for a particular insurer, it is adjusted to reflect the reserve-development experience of the insurer. This adjustment addresses the fact that insurers differ in terms of where they do business (e.g., some writing more heavily in a state with a volatile or highly competitive workers' compensation market). It also addresses the fact that insurers have different approaches to estimating their ultimate expected losses and required reserves. Some companies rarely need to adjust their reserves, whereas others, whether because of poor actuarial work, cash-flow considerations, or conscious management decisions, regularly make substantial adjustments.[8]

The RBC formula compares the company's own accident-year loss-reserve development to that of the industry over the previous nine years. The resulting ratio is applied to the industry-wide worst-case development to calculate a company-specific worst-case reserve-development factor. The company-specific factor is then averaged with the industry-wide worst-case development factor to produce a "company risk-based capital percentage" (Feldblum, 1996, p. 332). The adjustments are done line by line.

Conditions in the California workers' compensation market will be reflected in the company RBC percentage to the degree that the company does business in

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[6] Because insolvent insurers do not submit annual statements, their reserve-development experience may not be reflected in the average, depending on the proximity of the date of insolvency to the ten-year period.

[7] One reason it is difficult to assess is that the average across companies is a simple average rather than an average weighted by the amount of premium written.

[8] We note that there are at least half a dozen valid actuarial techniques, with large differences in forecasts quite common.

California. However, because the company-specific experience is weighted 50-50 with the industry-wide worst-case development factor, the formula only partially accounts for the situation in which an insurer does a large part of its business in California.

After a few additional adjustments, the company RBC percentages are then multiplied by the amount of the insurers' reserves nationwide, line by line. The resulting product is then carried forward in the RBC formula.

Pricing Risk. The second type of underwriting risk considered in the RBC formula captures the risk that a company is pricing below the cost of providing the coverage.[9] It is calculated similarly to the reserve-risk charge, but, rather than being based on reserve development, it is based on the loss ratio (the ratio of loss and loss-adjustment expenses to premium written). The resulting company-specific loss ratio is added to the company's expense ratio to produce a combined ratio. The combined ratio, less one, is applied to a company's written premium nationwide, by line of insurance, to arrive at the pricing-risk charge.[10] Thus, a company is required to hold capital to the extent that its pricing (after multiple adjustments) is inadequate to cover claim costs and underwriting expenses. As in the case of the reserve-risk charge, the pricing-risk charge captures the exposure of the insurer to the California market to some extent, but, again, the insurer experience is attenuated by a 50-50 weighting of the company and industry-wide experiences.

Other Risks. There are a number of adjustments and other factors considered in the RBC formula, including

- the degree to which an insurer's business is diversified across lines. This adjustment addresses the potential correlation in underwriting results across lines.
- the amount of growth. The formula imposes a charge for excessive growth (growth in excess of 10 percent) in premium written and reserves.[11]
- a covariance adjustment to account for the possibility that the various risks discussed in this section are at least partially independent.

Regulatory Actions Required by the Risk-Based Capital System

The California insurance code specifies a series of actions that the commissioner must take based on the relationship between an insurer's policyholder surplus

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[9] As Feldblum (1996, pp. 334–335) points out, the charge for pricing risk "captures risk that the company's future business will be unprofitable," while the charge for reserve risk captures the risk of past business.

[10] Because loss and loss-adjustment expenses include reserves, underreserving will affect this component of the RBC formula as well as the component for reserving risk.

[11] The charge for reserves is 45 percent of the growth rate exceeding 10 percent. The charge for premium is 22.5 percent of growth in written premium exceeding 10 percent. The growth rates used in the calculations are the averages of the three most recent annual growth rates for reserves and premium across all lines. The averages are capped at 40 percent (Feldblum, 1996, pp. 352–355).

(called the *adjusted surplus*) and the target level of capital generated by the RBC formula (California Insurance Code §739).

The various levels of regulatory action are triggered by the ratio of the company's adjusted surplus to the authorized control level. The authorized control level is one-half the target level generated by the RBC formula, and, once a company's surplus falls below the authorized control level, the commissioner is authorized to place the company under regulatory control (conserve the company). The ratio of adjusted surplus to the authorized control level, multiplied by 100, is referred to as the RBC ratio.

Company Action Level. This level is triggered when either of the following is true:

1. The RBC ratio is greater than or equal to 200 and less than 300 *and* the company has a combined ratio greater than 120.
2. The RBC ratio is greater than or equal to 150 and less than 200.

The first condition was added to the California code in July 2007 by AB 1985. It is this component of the RBC system that was not in place during the period leading up to the insolvencies. When the company action level is triggered, the insurer must identify the conditions that contributed to the event and prepare a report to the commissioner outlining the corrective actions that the company intends to take to eliminate the company action level event. The insurer must file the corrective-action plan within 45 days of the company action level event, and the commissioner must notify the insurer, within 60 days of the plan's filing, whether the plan should be implemented or is, in the commissioner's judgment, unsatisfactory (California Insurance Code §739.3[c]).

Regulatory Action Level. This level is triggered when the RBC ratio is greater than 100 and less than 150. In addition to actions required under company action level, the CDI is required to perform financial and other examinations that the commissioner deems necessary and to issue a corrective order specifying what corrective actions are required.

Authorized Control Level. This level is triggered when the RBC ratio is greater than or equal to 70 and less than 100. The commissioner is authorized to take control of the insurers if the commissioner "deems it to be in the best interests of the policyholders and creditors of the insurer and the public" (California Insurance Code §739.5). The authorized control level is reached once the insurer's adjusted surplus falls below half of the output of the RBC formula. The insurer may still technically be solvent (assets exceeding liabilities) at this point (NAIC, undated).

Mandatory Control Level. This level is triggered if the RBC ratio is less than 70. The commissioner is required to place the insurer under regulatory control unless he or she finds that there is a reasonable expectation that the RBC ratio

will exceed the mandatory control level within 90 days (California Insurance Code §739.6[b][2]). When an insurer reaches this level, it is typically insolvent, although, in some cases, the insurer's assets may still exceed liabilities (NAIC, undated).

Performance of the Risk-Based Capital System

We now turn to the regulatory actions that would have been required if the current RBC system had been in place during the period leading up to the insolvencies. Table 8.1 reports the RBC ratio and the combined ratio in the four calendar years prior to the year in which the insolvent insurers selected for detailed examination were conserved.[12] For example, the Superior Group's California Compensation Insurance Company was conserved in March 2000. The entries in the "1 Year Prior to Conservation" columns are the values for 1999, those in the "2 Years Prior to Conservation" are for 1998, and so on. The rightmost column reports the date the company action level would have been triggered. The month the company action level is triggered is always March because that is when insurers must file the annual statements that include statistics on RBC for the preceding year. Recall that the trigger for the company action level differs from the one in effect during the period leading up to the insolvencies in that it requires action when the RBC ratio is between 200 and 300 and the combined ratio is greater than 130, as opposed to requiring action only when the RBC ratio is below 200.

For the first four insurers listed in Table 8.1 (Golden Eagle, Fremont Indemnity, California Compensation Insurance Company, and Legion), the company action level was either never triggered or triggered at nearly the same time the company was conserved. Thus, the RBC system would have been of little help in prompting action to avert these insolvencies. Given that three of these four insolvencies resulted in substantial net payments by CIGA, the findings indicate that the RBC system would not have required these insurers to maintain an adequate surplus cushion against adverse events.[13]

As discussed in Chapter Seven, large reserve deficiencies were discovered at three of the first four insurers in Table 8.1. If the losses at these companies had been properly reserved, their RBC ratios would likely have been substantially lower several years prior to conservation, and the company action level may have been

[12] When there are multiple insurers in a group, we present the information for the insurer for which we were able to assemble the most-complete information. It turned out that this insurer was either the largest or among the largest insurers in the group.

[13] See Table 2.3 in Chapter Two. The fourth, Golden Eagle, was bought by Liberty Mutual. Proceeds from the sales to Liberty, combined with the infusion of funds from the Mabee family (the previous owners of Golden Eagle), resulted in no CIGA payments.

Table 8.1
Risk-Based Capital Ratio and Combined Ratio for Insolvent Insurers for Four Years Prior to Conservation

	Years Prior to Conservation									
	4		3		2		1			
Insurer	RBC Ratio	Combined Ratio	RBC Ratio	Combined Ratio	RBC Ratio	Combined Ratio	RBC Ratio	Combined Ratio	Conser-vation Date	Date Company Action Level Triggered
Golden Eagle	—	—	430	103	479	118	—	—	January 1997	Not triggered
Fremont Indemnity[a]	613	94	472	100	573	104	442	120	November 2000	Not triggered
California Compensation	509	103	402	121	620	123	0[b]	255	March 2000	March 2000
Legion	223	101	269	107	203	120	198	153	April 2002	March 2002
Casualty Reciprocal Exchange	529	111	539	112	318	113	202	133	December 2002	March 2002
PAULA	317	115	224	133	184	128	—	213	April 2002	March 2000
Western Growers[c]	316	113	107	136	133	155	—	—	January 2003	March 2001
Municipal Mutual	94	148	140	103	—	166	—	—	July 2006	March 2003

SOURCES: RBC ratio: Companies' annual statements. Combined ratio: A. M. Best Company (1997a, 1997b, 1998a, 1998b, 1999a, 1999b, 2000a, 2000b, 2001a, 2001b, 2002a, 2002b, 2003a, 2003b, 2004a, 2004b, 2005a, 2005b, 2006a, 2006b).

[a] Fremont was formally conserved in 2003. In 2000, the RBC ratio was 291 and the combined ratio was 164; in 2001, the RBC ratio was 43 and the combined ratio was 273.

[b] The company's adjusted capital level was negative, and the RBC ratio has been set to 0.

[c] Voluntarily ceased writing workers' compensation policies in the fourth quarter of 2000.

triggered earlier than indicated in Table 8.1. As discussed earlier in this chapter, the RBC system does not attempt to capture underreserving. However, the fact remains that the current RBC trigger would not have done a good job of indicating trouble for insurers that underreserve.

The company action level would have been triggered nine months before the conservation of Casualty Reciprocal Exchange and 13 months before the conservation of PAULA. The current RBC system could therefore conceivably have resulted in corrective action before these insurers were conserved by the CDI. However, the initiative remains with the company when the company action level is breached. It is up to the insurer to identify the conditions that contributed to the event and to prepare a corrective-action plan. Preparing the plan, CDI review, and implementation all take time, with the result that, in these two cases, there may have not been much that would have been done before the insurers were conserved. If that were the case, the RBC system would again have done little to avoid situations in which insurers had inadequate assets to cover their claims.

The company action level would have been triggered nearly two years and more than three years before Western Growers and PAULA were conserved, respectively. Thus, in the case of these two companies, it appears that the RBC system would have done a reasonable job of alerting regulators to potential policyholder-surplus deficiencies. It should not necessarily be inferred from this finding, however, that the CDI should have conserved these two insurers earlier. Western Growers did stop writing workers' compensation policies between one and two years before it was conserved. Municipal Mutual was a very small insurer that was shifting among different lines of business, and it was being followed closely by the CDI.

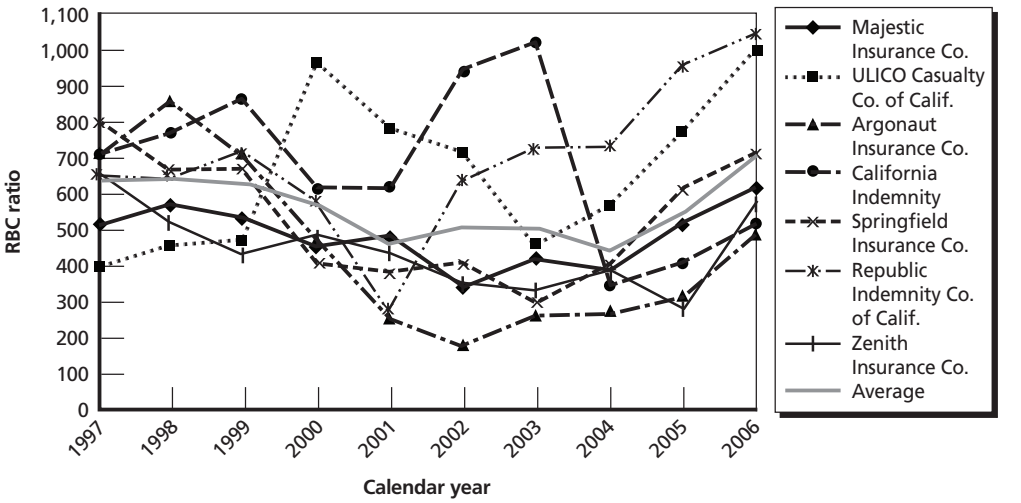
For comparison, Figure 8.1 shows the RBC ratios between 1997 and 2004 for seven of the eight solvent insurer groups selected for analysis.[14] For all but one of the eight companies, the RBC ratios were close to or above 300 throughout the period. The RBC ratio for Argonaut did fall between 200 and 300 for several consecutive years, but it recovered. What is more, the RBC ratio for the eight companies was above 350 the vast majority of the time. The findings suggest that the companies that did survive the market turmoil following open rating, by and large, maintained the RBC ratio above 300. The gray line in the figure shows that the RBC ratios for the seven groups represented remained above 440 on average.

With cutoffs motivated by the RBC ratios for the insurers that survived the period following open rating, Table 8.2 shows the date the company action level would have been triggered had the cutoff alternately been

1. RBC ratio less than 300

[14] Data for Williamsburg National were dropped because its RBC ratio reached extraordinarily high levels. The ratio varied from 407 to 44,354 during this period.

Figure 8.1
Risk-Based Capital Ratio for Selected Solvent Insurance Companies



SOURCES: Companies' annual statements.
RAND *MG949-8.1*

2. RBC ratio less than 350
3. RBC ratio greater than or equal to 200 and less than 300 *and* combined ratio greater than 110.

As can be seen, there would have been no change in the date on which action was indicated for Golden Eagle, Fremont Indemnity, and California Compensation, illustrating the vulnerability of the RBC system to substantial underreserving. In contrast, the company action level would have been triggered three years earlier for Legion under all three alternatives (March 1999 instead of March 2002). For the remaining four insurers, the change in the trigger date ranges from no change to three years earlier, depending on the alternative.

Recommendations for Improving the Risk-Based Capital System

Our findings suggest that the RBC system in place today would not have done a particularly good job of alerting regulators to financial weakness and requiring regulatory intervention during the period following open rating. Performance of the RBC system would likely have been better if underreserving had been eliminated, but performance was marginal for several companies when underreserving did not appear to be an issue. It is also important to note that, while the recommendations in Chapter Seven will ideally reduce the incidence and magnitude of underreserving, success is not guaranteed. These conclusions are based on a fairly

Table 8.2
Dates on Which Company Action Levels Would Have Been Triggered for Various Trigger Points

		Date Company Action Level Would Have Been Triggered, by Trigger Point			
Insurer	**Conservation Date**	**Current Company Action Level Trigger**	**RBC < 300**	**RBC < 350**	**200 ≤ RBC < 300 and Combined Ratio > 110**
Golden Eagle	January 1997	Not triggered	Not triggered	Not triggered	Not triggered
Fremont Indemnity	November 2000[a]	Not triggered	Not triggered	Not triggered	Not triggered
Calif. Compensation Insurance Co.	March 2000	March 2000	March 2000	March 2000	March 2000
Legion	April 2002	March 2002	March 1999	March 1999	March 1999
Casualty Reciprocal	December 2002	March 2002	March 2002	March 2001	March 2002
PAULA	April 2002	March 2000	March 2000	March 1999	March 2000
Western Growers	January 2003[b]	March 2001	March 2001	March 2000	March 2001
Municipal Mutual	July 2006	March 2003	March 2003	March 2003	March 2003

[a] Letter of agreement of regulatory oversight signed with the CDI on November 27, 2000; formally conserved on June 4, 2003.

[b] Voluntarily ceased writing workers' compensation policies in the fourth quarter of 2000.

small number of insurers, however, and would be strengthened by including data for more insurers.

In this section, we make a number of recommendations aimed at improving the ability of the RBC system to avoid the types of insolvencies that plagued the California workers' compensation market following open rating. In light of the ongoing Solvency II discussions in the European Union (EU), now is a particularly opportune time to consider such changes.[15] In evaluating these suggested changes to the RBC system, policymakers need to balance the increased cost of requiring insurers to hold more policyholder surplus with the reduced probability of insolvency. The following recommendations are best implemented by the NAIC as opposed to the CDI, but, as the largest member of the NAIC, California is well positioned to make the case for such changes.

[15] Solvency II is a revision of EU insurance law, proposed by the European Commission, that is designed to improve consumer protection, modernize supervision, deepen market integration, and increase the international competitiveness of European insurers (EU, 2007).

Recommendation 26: Consider Strengthening the Trigger for the Company Action Level. The advantages and disadvantages of different thresholds for the RBC ratio and the combined ratio should be explored. Strengthening the trigger could improve the chances that corrective action could be taken before policyholder surplus no longer provides an adequate cushion against adverse events. Our investigation suggests that relatively modest changes in the current trigger would not make a major difference absent elimination of substantial underreserving. Further analysis is needed to determine the appropriate trigger, and progress in efforts to improve reserve adequacy should be an important factor in any such analysis.

Recommendation 27: Consider Modifying the RBC Formula to Better Reflect the Risks Faced by Workers' Compensation Insurers. As an alternative to, or perhaps in conjunction with, changing the thresholds at which the company action level is triggered, the RBC formula itself might be modified. Two types of modifications in particular should be considered: adjusting the formula to better reflect geographic concentration and lengthening the historical window over which reserve-development and loss ratios are considered. As discussed under "Reserving Risk" earlier in this chapter, the company-specific experience is diluted considerably in the RBC formula, with the result that the output of the RBC formula only partially reflects the risk of an insurer whose business is concentrated in states with difficult workers' compensation markets. Modifications to the RBC formula should be considered to more fully reflect the insurer's exposure to the California workers' compensation and other volatile markets. This might be accomplished by increasing the weight on the individual insurer's experience. It might also be accomplished by requiring line- and state-specific capital charges when the share of an insured's premium in the particular line and state exceeds a certain threshold (say, 33 percent). Turning to the historical window, the RBC formula currently considers the worst average reserve-development percentage or the worst average loss ratio over a ten-year period, and the ten-year period is changed only infrequently. Such a short period may not include important events in the industry. For example, the period that was used until recently (1981 to 1990) did not include the insolvencies following open rating. Lengthening the period would enable the RBC system to provide protection against a more diverse set of events.[16]

Recommendation 28: Consider Requiring Insurers to Submit RBC Calculations More Frequently. Much can happen in the insurance industry in one year, and it seems appropriate to consider whether the RBC calculations should be updated more than once a year. More-frequent updates of the RBC ratio would increase the probability that the CDI would detect financial weakness in time to avoid conservation and insolvency. Insurers are already required to submit financial

[16] How long a period is appropriate merits further study. A very long period may not be appropriate, for example, if insurance institutions and regulations have fundamentally changed during the period.

information quarterly to the CDI, and the additional burden of submitting RBC updates quarterly or semiannually may not be great.

Recommendation 29: Introduce Systemic Risk and Enterprise-Level "Stress Testing" into Evaluations of Capital Adequacy. A shortcoming of the RBC approach is the implicit assumption that the past is reasonably predictive of the future. If we have learned anything since the beginning of the 2000s, it is that we need to expect the unexpected. In response, some financial credit-rating companies, such as A. M. Best, started several years ago to "stress test" insurer financial integrity. In simple terms, they ask such questions as these: What if a major earthquake and a large terrorist attack occurred in the same year? Could the insurer survive? Is the reinsurance adequate? Are the same reinsurers themselves exposed to solvency risk from too much exposure to the same event? The answers to these questions can affect the overall evaluation of capital adequacy. We suggest that the state's regulators consider similar prospective analyses for workers' compensation insurers that are not limited to only earthquakes and terrorism but consider economic downtowns, court decisions that fundamentally affect benefit levels, and other high-consequence events.

CHAPTER NINE

Conclusion

Since workers' compensation insurance rates were deregulated in 1995, the market has been exceedingly volatile. This volatility and the substantial number of associated insurer insolvencies have imposed costs on insurers, employers, and California residents. This monograph has examined the causes of the volatility and insolvencies and developed recommendations for changes that attempt to improve the performance of the market moving forward. In this concluding chapter, we offer some overall observations on the reasons behind the insolvencies and considerable volatility. We then summarize the recommendations developed in previous chapters for improving market performance and identify common themes that run through them.

Causes of Volatility and Insolvency

Many factors came together to cause the volatility and insolvencies that followed price deregulation. This monograph has examined the roles played by inaccurate cost projections, pricing below projected costs, reinsurance and MGA arrangements, underreserving, and inadequate levels of surplus to protect against adverse events. While it is true that the volatility and insolvencies were due to a number of factors other than price deregulation, it should also be acknowledged that price deregulation created an atmosphere that exacerbated the adverse effects of several factors. The accuracy of claim-cost projections became more important following deregulation. Under the minimum-rate law, insurers competed on price by paying dividends to policyholders after the policy period had ended. Doing so allowed insurers to refine estimates of claim costs after the policy was in place. Once prices were deregulated, however, insurers increasingly competed on the price at policy inception, with limited ability to adjust the price if costs changed. Preexisting incentive problems with reinsurance contracts and MGAs were also magnified by price deregulation. Insurers that passed risk on to reinsurers could quickly lower prices, as could MGAs that retained little or any stake in the ultimate profitability of the policies they wrote. Positive-feedback loops with pricing also magnified

the impacts of some factors. Because prices are often keyed to loss reserves, and reserves are often based on premium (particularly for new or growing insurers), lower prices can lead to lower reserves and then to lower prices.

Even though price deregulation creates the potential for considerable volatility and multiple insolvencies, it may be that the particular confluence of events that followed deregulation will not happen again. Recall from Figure 2.1 in Chapter Two that the insurers writing workers' compensation coverage in California were more diversified in 2005 than those doing so in 1990. Reinsurers are seemingly more cautious and MGAs better monitored than in the second half of the 1990s. The State Fund is under new management, and the independence and objectivity of actuarial opinions has improved, according to some. The RBC system has been enhanced since the bulk of the insolvencies. The most-reckless and shortest-sighted insurers may have been forced from the market.

However, memories are short, and many of the same incentives, institutions, and regulatory practices that led to the volatility and insolvencies remain in place. As evidenced by the recent *Ogilvie* and *Almaraz/Guzman* decisions, claim costs are subject to rapid and unanticipated change. Large insurers are able to fuel price wars by subsidizing their California workers' compensation premiums with business in other states or other lines. MGAs and reinsurance deals contributed to problems in the 1980s, as well as in the 1990s, and could do so again. What is more, new risks that were not a factor ten years ago could emerge. The risk that insurers are inappropriately valuing their assets is the most recent example. Thus, there is little reason to be confident that substantial volatility in the workers' compensation insurance market and large-scale insolvencies will not occur again.

Recommendations for Change

Table 9.1 collects the 29 recommendations that have been developed to help reduce the volatility and potential for insolvency while maintaining potential benefits of the open-rating system. The table also indicates several broad themes that run through the recommendations.

Improve Predictability

The lack of predictability was repeatedly emphasized during our interviews as a key driver of the volatility in the workers' compensation insurance market following open rating. In the view of many, had insurers better understood the cost of providing coverage following open rating, there would have been less market instability and fewer insolvencies. As shown in Table 9.1, improving predictability was a central focus of recommendations to improve the accuracy of cost predictions.

Table 9.1
Summary of Recommendations for Improving the Performance of the Workers' Compensation Insurance Market

	Theme Underlying Recommendation				
Recommendation	**Predictability**	**Transparency**	**Incentives**	**CDI Oversight**	**Other**
Improve the reliability of cost projections (Chapter Three).					
1. Increase clarity of legislative intent.	x				
2. Expeditiously release guidance and regulations on issues when there are important disagreements among stakeholders.	x				
3. Review the performance of the Workers' Compensation Appeals Board system.	x				
4. Explore the most appropriate way for the WCIRB to take advantage of transaction-level data.	x				
5. Increase the comprehensiveness of data provided to the WCIRB.	x				
6. Fast-track analyses of the impact of important legislation and judicial opinions.	x				
Increase pricing discipline in an open-rating setting (Chapter Four).					
7. Make WCIRB pricing reports public.		x			
8. Post insurers' annual and quarterly financial statements on the CDI Web site.		x			
9. Consider publicly releasing the results of CDI field rating and underwriting exams.		x			
10. Impose penalties for violations in field rating and underwriting examinations.				x	
11. Improve training and professional standards for workers' compensation underwriters.					x

Table 9.1—Continued

Recommendation	Theme Underlying Recommendation				
	Predictability	Transparency	Incentives	CDI Oversight	Other
12. Create a whistle-blower program to report excessively low rates.		x		x	
13. Explore ways to give insurance brokers and other intermediaries a greater stake in the financial soundness of the insurers with which they place policies.			x		
14. Publicly release the State Fund's ratio of charged premium to modified pure premium, by size of account.		x			
15. Increase State Fund staffing flexibility.					x
Better align incentives created by reinsurance contracts (Chapter Five).					
16. Evaluate adequacy of current risk-retention requirement and enforcement mechanism.			x	x	
17. Require licensed insurers to obtain approval before entering the reinsurance business.				x	
Better align incentives created by MGA contracts (Chapter Six).					
18. Broaden definition of *managing general agent* to include firms that take on substantial roles in underwriting or paying insurance claims.				x	
19. Augment the requirements on MGA contracts to give MGAs more skin in the game.			x	x	
20. Enforce requirements that insurers regularly audit their MGAs.				x	
Improve reliability of actuarial opinions (Chapter Seven).					
21. Require that actuarial opinions provide additional information.		x			

Table 9.1—Continued

Recommendation	Theme Underlying Recommendation				
	Predictability	Transparency	Incentives	CDI Oversight	Other
22. Require that actuarial opinions review reserves for a sample of claims.					x
23. Consider requiring the CDI to appoint and pay actuaries.			x	x	
24. Review the CDI's prioritization scheme for financial examinations, and consider a mandatory trigger for examinations.				x	
25. Impose penalties for inadequate reserving.				x	
Improve formula and reporting requirements for the RBC system in order to maintain an adequate surplus cushion (Chapter Eight).					
26. Consider strengthening the trigger for the company action level.				x	
27. Consider modifying the RBC formula to better reflect the risks faced by workers' compensation insurers.				x	
28. Consider requiring insurers to submit RBC calculations more frequently.		x			
29. Introduce systemic risk and enterprise-level "stress testing" into evaluations of capital adequacy.				x	

Enhance Transparency of the System

Providing more information to investors and other market participants allows them to better monitor the actions of workers' compensation insurers and can help curtail some of the excesses that have occurred in the past. Greater transparency can complement regulation and sometimes reduce the need for regulatory intervention. Given the budget problems of the State of California and the complexity that makes insurance markets difficult to understand and regulate, enhancing private-sector oversight of the workers' compensation insurance market is an attractive strategy.

Transparency figures predominantly in recommendations aimed at improving the accuracy of cost projections and reducing insurer tendency to underprice.

Better Align Incentives of Major Players

Our analysis has shown that incentives are sometimes not properly aligned in the workers' compensation market, and we have made recommendations to improve the alignment in a number of circumstances. As reflected in Table 9.1, recommendations have been made to ensure that reinsurance contracts leave insurers with an adequate stake in the policies they write and that MGA agreements create similar incentives for MGAs. Recommendations have also been made to reduce the potential conflicts of interests facing actuaries when they prepare actuarial opinions and to give buyers a greater stake in the financial stability of their workers' compensation insurers.

Improve California Department of Insurance Oversight

Roughly half of the recommendations address CDI regulation and oversight of the workers' compensation insurance market. Our focus has been on how to achieve the potential benefits of competitive pricing while reducing the volatility that has occurred since open rating. We thus do not suggest that California consider returning to the minimum-rate regime. Other states have made open rating work, and it is reasonable to expect that California could as well.[1] It is important not to overreact to what might be a particularly unfortunate confluence of events following open rating and abandon rate deregulation without good cause. However, if the extreme volatility continues or if major insolvencies occur again, it may be appropriate to consider reregulation.[2]

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[1] See Thomason, Schmidle, and Burton (2001) for an analysis of the effects of deregulation of the workers' compensation market.

[2] This study has not assessed the potential or realized benefits of open rating in such areas as price competition, quality of service, innovation, or reduced political interference in rate setting. Assessment of benefits in these and other dimensions would be an important part of an overall evaluation of open rating in California.

While we do not suggest reverting to the minimum-rate law, we have developed a number of recommendations that aim to improve the performance of the market in a deregulated-price setting. We suggest that the CDI impose penalties for underreserving and levy stiffer penalties for violations uncovered in field rating and underwriting exams. We also suggest that the CDI consider imposing additional limitations on reinsurance contracts and MGA arrangements. We do not encourage the CDI to attempt to ensure that rates are adequate; rather, we encourage the CDI to focus on solvency regulation. To this end, we suggest that the CDI advocate a number of changes to the RBC formula and reporting requirements. Perhaps most importantly, we encourage the CDI to review its systems for prioritizing financial and reserve exams, consider setting triggers for mandatory exams, and consider how best to introduce systemic risk and stress testing into evaluations of capital adequacy.

Moving Forward

These recommendations have been motivated by problems identified in the operation of the workers' compensation insurance market following rate deregulation. All are in need of further evaluation and refinement, and it is important to the California economy that such an assessment be done and changes implemented expeditiously.

This monograph has not addressed a number of issues relevant to a full assessment of the substantial number of insolvencies and the volatility in the California workers' compensation market in the past 15 years. For instance, we have not examined the legal and financial consequences of the insolvencies for the top managers of the insolvent companies nor investigated whether the current web of financial, civil, and criminal liability is adequate to deter inappropriate behavior. While our analyses and recommendations have touched on the rating agencies, we have not assessed the extent to which they helped alert regulators and employers to financial weakness at the insurers that ultimately became insolvent and what reforms in that sector of the insurance industry might be warranted. We have also not assessed the vulnerability of the insurance regulatory system to issues involving asset valuation. The recent economic recession has caused drops in asset value that may not be properly reflected in insurer books, which would, in turn, cause insurers to be less financially sound than current measures indicate. These issues warrant further attention moving forward.

APPENDIX A

Relationship Between Underwriting Profit and Profit on Insurer Operations

The NAIC constructs estimates of insurer profitability based on information supplied in the annual statements filed by insurers. Estimates are made by state and by line for (1) underwriting profit and (2) profit on insurance transactions. Profit on insurance transactions is

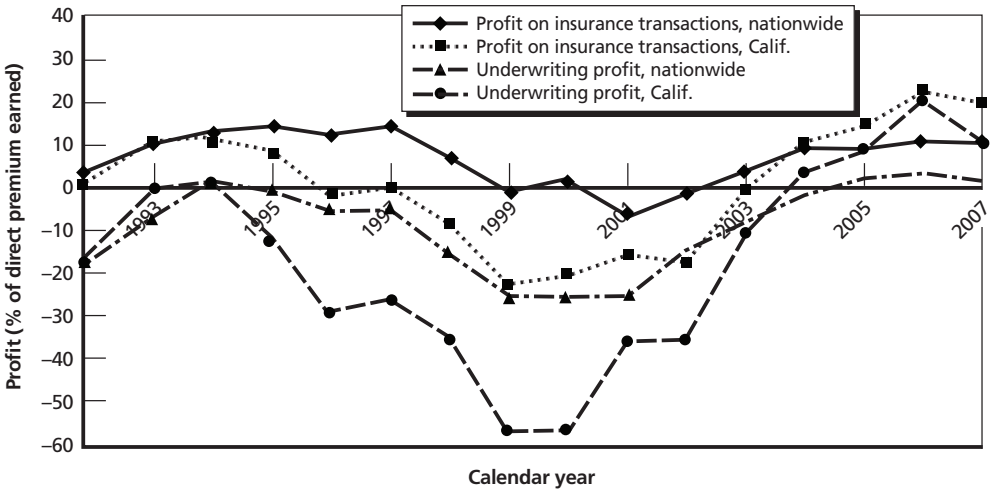
underwriting profit + investment gain on insurance transactions – related federal income taxes.

Investment gain on insurance transactions is limited to the investment returns that can be attributed to loss reserves, loss-adjustment expense reserves, and unearned-premium reserves and does not consider investment returns on policyholder surplus (NAIC, 2008a, pp. 3–5). The rationale for excluding policyholder surplus is that these funds represent the capital supplied by investors and earned over time by the insurer and would earn a return if invested in other ways. A substantial number of assumptions are needed to allocate investment returns by line and by state.

Figure A.1 shows NAIC estimates of underwriting profit and profit on insurance transactions for workers' compensation insurance in California and the nation as a whole. Between 1995 and 2007, profit on insurance transactions ranged between 7 and 27 percentage points higher than underwriting profit for the nation as a whole and between 2 and 36 percentage points higher for California. The California figures should be interpreted with extra care because of the additional assumptions needed to allocate investment returns by state.

The NAIC estimates of underwriting profit differ from those in Figure 1.1 in Chapter One but are of the same general magnitude. Once investment returns are considered, NAIC estimates that the California workers' compensation insurance business was still unprofitable between 1998 and 2003, with losses ranging from 8 to 23 percent of premium earned.

Figure A.1
Underwriting Profit and Profit on Insurance Transactions for Workers' Compensation Insurance, for California and the Nation as a Whole



SOURCES: NAIC (2001, pp. 131–132, 151–152); NAIC (2008a, pp. 140–141, 160–161).

RAND *MG949-A.1*

APPENDIX B

Analysis of Whether Insurer Insolvencies Could Account for Increases in State Fund Premium

The calculations in Table B.1 provide a rough comparison between the decrease in the premium written by the insurers that ultimately became insolvent following the switch to open rating and the increase in premium written by the State Fund.

Table B.1
Relationship Between Increase in State Fund Premium Written and Decline in Premium Written by Insurers That Became Insolvent

Premium ($ billions)	1999	2000	2001	2002	2003
Direct written					
1. All insurers, gross of large-deductible credit	7.1	9.1	12	15.6	21.5
2. All insurers, net of large-deductible credit	5.7	6.5	8.6	11	14.9
3. Insolvent insurers	1.439	1.005	0.420	0.103	0
4. State Fund	1.244	1.799	3.638	5.493	7.797
5. Large-deductible credit ratio (row 1/ row 2)	1.25	1.40	1.40	1.42	1.44
6. Average workers' compensation rate ($ per $100 payroll)	2.3	2.69	3.46	4.66	6.1
7. Normalizing factor (row 6/6.1)	2.652	2.268	1.763	1.309	1
Adjusted written					
8. Insolvent insurers (product of rows 3, 5, and 7)	4.755	3.190	1.032	1.903	0
9. State Fund (product of rows 4, 5, and 7)	3.300	4.079	6.414	7.190	7.797
10. Cumulative change in adjusted insolvent premium	—	–1.565	–3.723	–4.736	–4.755
11. Cumulative change in adjusted State Fund premium	—	0.780	3.114	3.890	4.497
12. Ratio of adjusted changes (negative of [row 11/row 10])	—	0.50	0.84	0.82	0.95

The calculations begin in 1999, which was the year in which the insurers that ultimately went insolvent wrote the largest amount of premium.

Two adjustments are made before calculating the change in premium. The first adjustment accounts for the fact that the State Fund rarely writes large-deductible policies, while large-deductible policies were common among private insurers. If a policy moved from an insolvent insurer to the State Fund, the premium would presumably increase, to account for absence of a large deductible. The prevalence of large-deductible policies across the industry as a whole is used as a proxy for the prevalence of large-deductible policies at the insolvent insurers. Insolvent-insurer premium (row 3) is inflated by the ratio of direct written premium gross of large-deductible credits to gross written premium net of deductible credits (row 5).

A second adjustment is made for the change in workers' compensation prices during the period. The adjustment is required in order to cumulate the change in premium over time. The price adjustment is based on the average workers' compensation rate, normalized to 2003 (rows 6 and 7).

Rows 8 and 9 of the table report the adjusted premium of the insolvent insurers and the State Fund, and the cumulative changes from 1999 are reported in rows 10 and 11. As can be seen in row 12, the cumulative increase in adjusted State Fund premium is less than the cumulative decrease in premium written by insurers that became insolvent. (By 2003, the increase in State Fund premium since 1999 was 95 percent of the decrease in insolvent-insurer premium since 1999.) The result suggests that, in principle, the increase in State Fund premium could have been entirely due to the transfer of policies from the insolvent insurers to the State Fund. Note that these calculations assume that the price of State Fund policies was the same, adjusted for the large-deductible credit, as the price of the policies of the insolvent insurers. If the prices of State Fund policies were lower, the increase in State Fund market share would not necessarily be fully explained by the transfer of policies from the insolvent insurers. In addition, we have assumed that the insolvent insurers wrote large-deductible policies with the same frequency as did the market as a whole. However, we have not been able to collect data on whether this is the case. If the insurers that became insolvent wrote large-deductible policies less frequently than the market as a whole, our estimate of the portion of the increase in State Fund premium that could be due to policies transferred from the insolvent insurers would be too high.

APPENDIX C

Background on Reinsurance

Why Reinsurance Is Critical to Workers' Compensation Insurers

Reinsurance is a specialty form of insurance that enables an insurer to transfer to reinsurers all or just some of the financial promises that it makes to its policyholders. The transfer of risk to reinsurers can apply to the entire portfolio of insurance underwritten in a given time period, to an individual policyholder, or to a group of policyholders in a specialty program. The premium that is paid to reinsurers is called *ceded reinsurance*, and the insurer is referred to as a *cedent*. The business that is underwritten by the reinsuring company is called *assumed reinsurance*. If a reinsurer, in turn, decides to transfer all or a part of the risk, it may purchase what is called *retrocessional insurance*. When an insurer or a reinsurer passes all or most of its risk to unaffiliated reinsurers, the insurer or reinsurer is said to be fronting the policy.[1] Even when an insurer passes some or all of the risk to a reinsurer, the insurer retains the responsibility to pay claims brought against the policies it wrote. Typically, the insurer adjusts and pays the claims and then bills the reinsurer for the amount due the insurer under the reinsurance contract.

Reinsurance: The Changing Cast of Characters

Until the early 1990s, there were three different types of underwriters populating the reinsurance business in the United States:

- *Professional reinsurers.* These are insurers whose main business is reinsuring insurance companies. In the past, the three largest U.S. companies in this sector were General Reinsurance, Employers Reinsurance, and American Re. These reinsurers were headquartered in the United States and were normally admitted or accredited in every state or jurisdiction. In addition, several of the

[1] There is no one generally accepted definition of *fronting*. See Chapter Five for examples of the approaches taken by different states.

world's largest reinsurers, such as Swiss Re and Munich Re, operated wholly owned, admitted subsidiaries in the United States. It is important to note that very few professional reinsurers failed in the 1980s or 1990s. Although many have been acquired or exited the United States, very few have failed to meet their financial obligations.[2]

- *Insurance companies.* Any licensed insurance company in the United States is generally free to enter the business of assumed reinsurance in the lines in which they are licensed.[3] The resulting ease-of-entry issue presents a recurring challenge as so-called *naïve capacity* comes and goes, often leaving insolvent insurers in their wake. Some of the largest insolvencies of the 1980s, discussed at length in the Dingell report (U.S. House of Representatives, 1990), were the result of primary insurers from the United States and other nations expanding aggressively into assumed reinsurance during competitive periods in the market cycle.[4]
- *Foreign-domiciled reinsurers.* These are underwriters domiciled in foreign countries that provide reinsurance to domestic insurers, often on a non-admitted basis. These reinsurers are called *alien reinsurers*. Market-leading reinsurers with foreign domiciles include Lloyd's of London, Swiss Re, and Munich Re.[5]

In the past 20 years, the reinsurance landscape has changed considerably, with many new market entries and some surprising departures. The most-important drivers redefining the assumed-reinsurance business are the continued movement of reinsurance capital and executive management to offshore domiciles, massive consolidation of the largest underwriters, and a host of consequential new issues that will challenge the integrity of the workers' compensation insurance marketplace and state regulators in coming years. Although some traditional professional

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[2] Two notable exceptions from the past ten years were Trenwick Reinsurance and Risk Capital Re. Neither appears to have had a meaningful role in the failures of California workers' compensation insurers.

[3] We also note that, in some states, insurers must assume at least some unaffiliated reinsurance because of statutory requirements (such as residual market pools or Minnesota's workers' compensation reinsurance facility).

[4] Notable examples of insurer failures significantly caused by the underwriting of assumed reinsurance include the Mission Insurance Companies, Imperial Casualty, and Integrity Insurance Company. Each of these major failures involved reliance on production and underwriting of assumed reinsurance through delegated authority to MGAs. The Dingell report also notes that, of the 600 reinsurance companies that Mission utilized as an insurer, "about 75% were foreign companies based in Germany, France, Italy, Japan, and many other countries" (U.S. House of Representatives, 1990, pp. 13–14).

[5] Some alien reinsurers, such as Lloyd's, are able to do business on an admitted basis in the United States because they maintain a trust account that allows them to be accredited by many states. Other major reinsurers, such as SCOR Re, Munich Re, and Swiss Re, have, in the past, operated both as alien reinsurers and on an admitted basis through their U.S.-based subsidiary reinsurance companies.

reinsurers continue to operate, the vast majority of leading reinsurers today are the subsidiaries of parent companies that also operate direct-insurance subsidiaries.

Why Reinsurance Is Purchased

The most-common and often-cited reason that insurers purchase reinsurance is to reduce the uncertainty in an insurer's underwriting results. As A. M. Best (2007) stated succinctly, "insurance companies purchase reinsurance to spread risks and to limit their exposure to large or catastrophic losses." Although the needs of individual insurers vary considerably, all sizes of property-casualty insurers buy reinsurance to limit their risk to (1) reasonably anticipated isolated, large losses, or to a large number of related ones, or (2) unanticipated systemic losses affecting numerous policies. From a financial-market standpoint, buying reinsurance can be viewed as a form of hedging against unexpected underwriting developments, much as derivatives, futures, or option contracts serve to limit risks from investment outcomes, interest-rate volatility, or commodity price changes.

However, reinsurance can also serve a marketing function for insurers, enabling a competitive positioning that otherwise may not be feasible. By increasing the policy limits that an insurer can provide and the amount of direct premium that can be written, reinsurance allows smaller insurers to compete effectively with larger ones. Reinsurers also often facilitate insurers in transitioning into entirely new lines of business or out of lines or customer segments no longer meeting an insurer's strategic goals. During extremely competitive phases of the commercial marketplace, assuming that reinsurers are willing to accept less premium than an insurer would charge, reinsurance allows insurers to effectively intermediate themselves by retaining little to no net premium.

In general, reinsurance is best understood as a flexible form of synthetic capital. Purchasing reinsurance allows an insurer to compete on a basis that would otherwise not be possible without additions to its debt or equity structure. Effectively, when an insurer buys reinsurance, it is renting the capital of another insurer for a short period, with changes in the terms or continuation of this relationship negotiable every year. Reflecting this financial dimension, the purchase of large amounts of reinsurance on a quota-share or proportional basis is often called a *surplus-relief treaty*.

In the late 1980s, a new form of reinsurance, called *financial reinsurance* or *finite reinsurance*, became popular. Given the clearly financial nature of traditional reinsurance, the use of the phrase *financial reinsurance* was initially at least somewhat confusing to many industry stakeholders. A full discussion of this approach exceeds the limits of this monograph,[6] but the main difference with traditional quota-share treaties was that this approach

[6] For a more detailed discussion, see Riggin (2008).

- explicitly recognized the time value of money by recognizing investment-income returns in the contract
- limited the maximum ultimate losses and expenses payable by the reinsurer either to some dollar amount or to a loss-ratio percentage on the final earned premium
- limited the initial charges to the insurer to reflect both the percentage value of the nominal premiums and the reinsurer's right to limit its maximum loss
- extended the contract over multiple years to account for unusual results in any one year
- offered the insurer some form of return premium or profit sharing.

This approach was especially attractive to workers' compensation reinsurers (given the 40 years or more that it can take for a workers' compensation insurer to pay all the claims from accidents during any given underwriting year). When a financial-reinsurance treaty applied retroactively to prior–accident-year losses, it was called a *loss-portfolio transfer* (LPT).[7] The retroactive purchase of finite reinsurance basically allowed insurers to purchase the right to present-value their reserves. Like many states, California does not allow insurers to present-value workers' compensation loss reserves.[8]

Critics of financial reinsurance (including many state regulators) argued, with some cogency, that these agreements contained little to no underwriting-risk transfer, that they masked the reality of an insurer's financial health, and that they should not be given the normal accounting recognition given to qualified reinsurance purchases. The proponents of the approach countered that their contracts did transfer other risks, such as investment risk and timing risk, and therefore satisfied several of the key purposes of insurance or reinsurance (see Bunner, 1995). In the past ten years, the NAIC has instituted numerous enhancements to the disclosure of reinsurance-related issues (including receivables and matters in dispute or arbitration, as well as LPTs and detailed interrogatories) in the statutory financial reports used in all jurisdictions.

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[7] For example, in August 2002, the State Fund was able to cede $1.035 billion from its loss reserves in return for a reinsurance premium payment of $729 million to two Bermuda-based reinsurers. The difference of $319.7 million became an addition to the State Fund's policyholder surplus. The maximum amount payable by reinsurers was limited to $1.5 billion. See State Fund (2004, p. 21) for more details on this transaction.

[8] It is interesting to note that, in its efforts to rehabilitate Fremont, the CDI allowed the insurer to present-value its reserves as a special exception to this rule.

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