The Runoff Environment—Considerations for the Reserving Actuary

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CAS Paper

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Abstract

As companies experience poor results or enter into weakened financial condition, particular lines of business or entire books of business may be cancelled or non-renewed and the loss reserves for this business placed into runoff. In such circumstances, it is possible that traditional reserving methodologies used to estimate IBNR reserves may produce distorted results, as the assumptions of a stable environment upon which most methodologies rely fail to hold. In this paper, we review some of the causes of such distortions and discuss some adjustments the reserving actuary may want to consider when evaluating a runoff book of business.

Specifically, we focus on the medical professional liability, or medical malpractice, line of business, using loss and claim data from two previously large writers of this line, both of which are now in runoff. We compare certain results of these two writers post-run off with their own results prior to entering runoff and with a compilation of on-going peer companies. The key statistics examined are (1) average closed claim severity, (2) claim closing patterns, and (3) loss payment patterns. We attempt to quantify the impact on these statistics of entering runoff, explore reasons for these changes, and suggest adjustments to be made to standard reserving methods. We also discuss the role of insurance guaranty associations (IGAs) and the impact of runoff on excess of loss reinsurance.

I. Introduction/Background

In this paper, we have focused on the impact of runoff on reserving for one particular line of business – medical malpractice. We chose to focus on one line because the effort necessary to evaluate the impact for every line of business in depth would be too monumental for a paper such as this. We are hopeful that many of the comments made here would apply to other lines of business as well, and perhaps others can test this with further research.

The medical malpractice insurance market has undergone dramatic changes since the mid 1970's. The market has been characterized by severe swings, from market corrections with significant rate increases and capacity shortages to periods of intense competition. Medical malpractice insurance is a difficult line of business to write because of the potential for bursts of large severe claims as well as high claim frequency periods. Problems can be more dramatic than those for other lines because of the long-term nature

of claims reporting and settlement. A recent history of troubled property-casualty insurance companies includes many that either wrote medical malpractice liability as their primary line or one of their primary lines.

Financial difficulties for an insurer can impact many parties, including policyholders, claimants, creditors, regulators and reinsurers. In a liquidation procedure or even in voluntary runoff, the reserving process can take on additional significance, as estimates produced may have an impact on the way the assets of the company or estate are used. To equitably runoff or close a book of business, it is important for all sides to have accurate information and projections. Assumptions that the troubled insurance companies' operations and financial trends continue as before the troubles arose could lead to misleading conclusions. It is important to consider that revelations of difficulties within a company create a new environment along with new perceptions. Also, it is reasonable to believe that the operation of the company prior to the onset of financial difficulties may have undergone some changes that led to the problems that occurred.

In this paper, we discuss both the empirical data we have reviewed from two runoff entities that had previously written a large amount of medical malpractice business and the qualitative input we have gathered from our experience and the experience of others in the industry we have interviewed. Based on our analysis, we have drawn the following conclusions regarding considerations for actuaries when evaluating a runoff entity:

1. The speed at which claims are reported and settled is likely to change. In some cases, there may be a "stay" in place that freezes claim activity, slowing down the reporting and closing of claims for a period of time. Absent such a stay, or once one in place is lifted, there is the possibility of a "run-on-the-bank" situation, where claimants rush to report and settle claims to avoid the possibility of receiving reduced recoveries or possibly no recovery at all.

2. The average amount paid per claim is likely to decrease. During a "run-on-the-bank" situation, not only do claimants want to settle their claims quickly, but they also are generally willing to accept a lower settlement amount in order to do so. Furthermore, in some cases, the limited assets of the company or the limits of guarantee funds may result in lower amounts paid per claim. These lower amounts paid per claim may result in higher net-to-gross ratios for claims paid after runoff than those paid before runoff, as these lower values may decrease the frequency and severity of claims piercing excess of loss reinsurance retentions.

3. In some cases, the ultimate loss ratios for the latest years are likely to be significantly higher than prior years. At the start of financial difficulties, there is sometimes pressure put on underwriters to generate inward cash flow. This can result in business being placed on the books that is less profitable than usual.

Without considering the three issues listed above, traditional actuarial techniques can produce inaccurate results. Any development method would be impacted by changes in the speed of the reporting and closing of claims; any counts and averages method would

be impacted by changes in the average amount paid per claim; and any expected loss ratio or Bornhuetter-Ferguson method using an expected loss ratio would be impacted by changes in the expected loss ratio. Furthermore, actuaries sometimes apply techniques to estimate unpaid losses on either a gross basis or a net basis with respect to reinsurance and use a net-to-gross ratio to estimate the other; use of a historical ratio may be inappropriate.

II. Analysis

Data

For our analysis, we relied on the medical malpractice data for two companies that recently placed their business into runoff. We will keep the names of the companies confidential, referring to them as "Company X" and "Company Y". Both companies wrote large amounts of physician claims-made policies with only limited hospital or long-term care facility exposure. Company X is in liquidation while Company Y voluntarily placed its medical malpractice line into runoff after experiencing significant financial difficulties. As shown in the data tables included later, we have reviewed three years of post-runoff data for Company X and 1 year of post-runoff data for Company Y, with these results compared to the years prior to runoff for each company.

For purposes of comparison, we created an industry medical malpractice benchmark database using composite information from member companies of the Physician Insurers Association of America (PIAA). This is a group of mutual medical malpractice writers that wrote similar business to Companies X and Y. The data was compiled from the 2000 Annual Statements for the majority of companies currently in the PIAA.

Statistics

We examined changes in the following statistics:

- Incremental claims closed with payment (CWIPs)
- Incremental loss payments
- Average claim payments

Note that we have only used paid loss and closed claim data. Due to the financial difficulties of both companies, we believe distortions may have existed in the case reserves such that historic loss development would not be indicative of future development.

III. Understanding the Results

Before providing quantitative results, we believe it is necessary to understand the process, dynamics and motivations of parties involved with financially troubled insurers, such as within a liquidation, to properly understand and interpret the results that follow.

Signs of Financial Problems

While there is usually no single factor that causes an insurer to enter financial distress, the following characteristics (either alone or in some combination), have been exhibited in the majority of insolvencies: (1) deficient loss reserves, (2) rapid growth, (3) overstated assets, (4) alleged fraud, (5) significant change in business, (6) reinsurance

failure, and (7) catastrophic loss. These characteristics may be voluntarily disclosed by the company or discovered by external entities, such as state regulators, rating agencies or financial analysts.

Liquidation Process and Effect on Claims

In the event that a company's financial standing deteriorates beyond repair, it may be liquidated. The process of liquidation varies from state to state because of local statutes and enhancements to the NAIC model laws. After an order of liquidation is obtained, the appointed liquidator in the state of domicile notifies all insurance departments in other states where the company wrote business and insurance guaranty associations (IGAs). IGAs represent solvent insurers in each state and absorb the losses of claimants against insolvent insurers. Not all lines of insurance are eligible for coverage by IGAs with restrictions that vary by state.

The liquidator is also responsible for notifying all agents, policyholders, and any others who might have claims against the company in its insolvency. The liquidator also usually issues a "bar date" on future claims. The bar date is established to cut off future claims and is usually set for 1 year after the liquidation begins. The liquidator may also place a stay on all pending litigation against the insurer. This stay will allow the liquidator and IGAs time to review claim files and, if necessary, prepare an adequate defense.

After liquidation, the IGAs in each state where there are policyholders for the insolvent company become responsible for handling claims against those policyholders. The IGAs have the authority to settle claims for a limited amount, usually between $100,000 and $300,000 per claim. Any claims that settle for amounts greater than these limits must be approved by the liquidator. If approved, the amounts greater than the IGA limits are submitted to the estate of the insurer as a "Class 2" claim against the estate. (The priority of claims is defined by state statute but usually runs from Class 1 to Class 9. Class 1 claims include administrative expenses, both for the IGAs and the estate to liquidate assets and are the first to be paid with any assets held by the estate. Class 9 claims are the claims of shareholders or other owners and are the final claims paid by the estate, if possible.)

The estate, through the liquidator, works to generate as much cash as possible quickly through sale of assets and recoveries from third parties such as reinsurers. Often the amounts compiled for the estate are not enough to cover all the claims submitted by all classes. In this case, the liquidator may declare a "dividend", allocating money to each of the different classes. The dividend amounts are often less than the full amount requested.

IGAs will recover payments made under the limit of their authority through an assessment of solvent companies in the state that operate in the line of business of the claim paid. Usually, the assessments are generated after the insolvency and are charged to insurers (and passed onto policyholders) as a percent of net written premium. IGAs are usually exempt from any litigation in their work in regard to bad faith negotiating.

Claim Process (From the Other Side)

To gain a complete picture of the impact of financial troubles for insurers on claim settlements, it is important to view the claims process from an alternative to our traditional industry position – the view of the claimant. As in any type of liability insurance, the start of the claim process is an event or incident where there is an injury and the perception of responsibility for the injury by a third party. For medical malpractice, the third party is usually a physician or other health-care provider. The physician involved often will file a report of any incidents with their insurer and a file may be created with, perhaps, a small default reserve attached. Some states have a mandatory requirement for incident reporting. As the majority of incidents or events do not turn into claims, most of these files are closed within 180 days without any paid loss.

A claim is defined as any written or oral demand for compensation in the form of money or services, with no legal papers having been filed in court. Many claims that are unresolved become suits. A suit is formal litigation that alleges an error or omission on the part of one or more defendants. Only approximately 1 in 3 malpractice claims results in an indemnity payment to the plaintiff. Only a small number of cases are resolved as the result of a jury verdict.

If the perception of malpractice exists, the claimant/patient will more often than not approach a plaintiff's attorney. Prior to preparing a formal claim, the attorney must evaluate each incident to determine (1) if there was negligence and (2) what damages, if any, were incurred. If the attorney believes the case has merit, he will file a notice of claim with the physician or facility involved. The notice will include a request for discovery of documents. Discovery is a standard part of most litigation and allows parties access to information held by the other side. One of the documents usually requested is proof of insurance. The proof of insurance document will include all material insurance information for the target of the claim such as the name of the insurers involved and limits provided in the policy.

This information is critical to the pursuit of the claim. Except in unusually strong cases, most attorneys will pursue damages only up to the maximum insurance limit purchased. If the attorney seeks recoveries from the physician involved for amounts greater than the physician's carried insurance limit, and if there is no excess coverage or other facility in place, the attorney will need to seek to attach personal assets of the physician involved. The processing of attaching personal assets can be a long and difficult process and the attorney has to weigh the cost of pursuing these assets against the benefit of accepting a cash settlement from an insurer.

The listing of insurers involved is an important piece of information. Astute plaintiff attorneys will often track the rating of insurers and this may influence their decision to settle. Also, attorneys involved in a claim against an insolvent insurer will be notified regarding any stays of litigation and the financial status of the insurance company involved. If a company enters dire financial straits, it is often in the interest of the

claimant to seek a quick settlement. This may avoid a long expensive legal battle in which the claimant, if victorious, may only receive pennies on the dollar of any settlement, due to previous settlements diluting any remaining assets.

IV. Discussion of Results

In the initial phase of our analysis, we examined three statistics for the companies pre- and post-runoff.

1. Claim Closure Rates

The first statistic we examined was the ratio of claims closed with payment (CWIP) in a given year to those closed with payment in the prior year for a given report year. We hoped to learn from this statistic whether claims were settling faster. For both Company X and Company Y, the ratios increased after the business was placed into runoff. For example, before runoff, the number of claims closed with payment in the third year of experience (24-36 months after the beginning of the report year reviewed) was slightly more than the number closed in the second year of experience – 25% more (ratio of 1.25) for Company X, 3% more (1.03 ratio) for Company Y. After runoff, this ratio increased dramatically for Company X – from 1.25 to 9.33, 5.74 and 3.71 for the following three years. The ratio for Company Y also increased, but by a smaller amount (from 1.03 to 1.32).

Similar trends can be observed in Table 1 for other age periods. After 60 months, the number of claims closed for these companies decreased to a number too small to use in such comparisons.

Table 1
Ratio of Claims Closed with Payment in a Given Calendar Year to those Closed with Payment in the Prior Calendar Year for a Given Report Year

	Company X				Company Y	
Period	Pre-runoff	Post-Runoff			Pre-runoff	Post-Runoff
(Months)	3-Year Avg	Year 1	Year 2	Year 3	3-Year Avg	Year 1
12-24/0-12	2.17	14.50	14.00	-	2.90	7.00
24-36/12-24	1.25	9.33	5.74	3.71	1.03	1.32
36-48/24-36	0.61	5.00	2.87	0.73	0.59	0.85
48-60/36-48	0.61	3.50	3.17	0.50	0.73	0.74

What causes these changes? There are several items that we have identified:

1. When an insurance company has financial problems, claimants and their attorneys are more likely to look for a faster settlement. As described above, claimants may be aware of the problems and the potential for reduced recoveries.

2. In runoff situations, there is pressure from within the insurance company itself to settle claims faster as well. Uncertainty is reduced as the number of open claims is reduced.

3. In the case of Company X, there was a 6-month stay on litigation in place at the time the company was placed into liquidation. (This stay took place the year before the "Post-runoff Year 1" shown in Table 1, but after the "Pre-Runoff 3-Year Avg" period.) As this would depress the number of claims closed in the year before Post-Runoff Year 1, this would cause the ratios in the Post-Runoff Year 1 column above to be unusually high. Some of the large number of claims closing are those that would have settled in prior years had there been no stay. (No such stay exists for Company Y.)

Another observation for Company X is that the ratios in Table 1 appear to decline in Post-Runoff Year 3, close to the Pre-Runoff levels. At some point, after the initial pressure of settling claims faster subsides, perhaps there could be a return to "normal" development patterns. Or, it is possible that claims are continued at an elevated pace, but just not as high as the previous year.

When evaluating a company in runoff, the actuary may want to investigate these issues. Conversations with the claims and legal departments may be able to shed some light on such issues. Any methodology that involves the development of claim counts, such as for use in a counts and averages method, may need to be adjusted. The adjustments would include recognizing some estimate of a speed-up in claim closing.

2. Average Payment per Claim

The second statistic we examined was the size of the average loss paid per claim in a calendar year. We hoped to use this statistic to determine whether the financial difficulties of the companies were impacting the amount paid for claims.

Changes in the speed of claim settlement as observed in Table 1 would likely also have some impact on the amount of losses paid. Table 2 compares the average amounts of loss paid per claim closed with payment. The period represents the time elapsed since initial report or the age of a claim.

Table 2
Average Losses Paid per Claim Closed with Payment in a Given Calendar Year by Age of Reported Claim
($ thousands)

	Company X				Company Y	
Period	Pre-runoff	Post-Runoff			Pre-runoff	Post-Runoff
(Months)	3-Year Avg	Year 1	Year 2	Year 3	3-Year Avg	Year 1
0-12	34.6	12.0			185.3	120.3

12-24	159.0	82.1	90.4	192.1	257.1	212.7
24-36	195.0	105.4	118.3	137.2	292.5	248.3
36-48	175.3	133.1	150.4	132.9	237.9	221.9
48-60	173.8	93.1	102.2	105.9	206.7	103.9

As shown in Table 2, the average amount paid per claim decreased for both Company X and Company Y after their business was placed into runoff. Note that the pre-runoff data shown in Table 2 has not been trended to account for inflation; if it had been, the decrease would appear even more dramatic.

Some of the factors that could have contributed to the above decreases include:

1. Claims are being settled quicker, as shown in Table 1. As a result, when a claim that would normally result in future payments is settled, a discount for the time value of money would likely be applied, so that the amount paid represents the present value of what would otherwise have been paid.

2. Concerns about the financial condition of the insurance company could lead to claimants accepting less than they normally would.

3. IGA limits may have an impact. As noted earlier, IGAs have limits of $100,000 to $300,000 on their authority to settle claims and the majority of claims handled do settle within these limits.

4. Although not exhibited here, at some point, a decrease would exist in the final closeout of an estate when the liquidator must allocate any remaining assets to Class 2 claims. If the remaining assets are less than the outstanding claim reserves, then full payment of claims will not be made, reducing average payment size.

The actuary may want to review average claim statistics such as these when reviewing a company in runoff. Certainly any counts and averages method may need to be adjusted.

3. Incremental Paid Loss Development

The final statistic examined was incremental paid loss development. We hoped to use this statistic to examine changes in the payout pattern.

A speedup in the rate at which claims are closed (as shown in Table 1) could result in payments being made faster. However, a decrease in the average paid per claim (as shown in Table 2) can somewhat mitigate this effect. Table 3 compares the total amount paid in a given period to the prior period.

Table 3
Ratio of Paid Loss in a Given Calendar Year to Paid Loss in the Prior Calendar Year by Age of Claim Report Year

	Company X				Company Y	
Period	Pre-runoff	Post-Runoff			Pre-runoff	Post-Runoff
(Months)	3-Year Avg	Year 1	Year 2	Year 3	3-Year Avg	Year 1
12-24/0-12	15.82	15.87	105.47		3.80	7.69
24-36/12-24	1.71	5.25	8.26	5.64	1.05	1.93
36-48/24-36	0.63	3.71	4.09	0.82	0.52	0.72
48-60/36-48	0.54	4.09	2.43	0.35	0.69	0.35

Similar observations can be made here as were made from the CWIP data in Table 1. In the years after business is placed into runoff, the change in the annual paid losses for these companies was significantly higher than historical levels. The reasons for these changes are the same as those reasons discussed in the CWIP section.

Consideration of possible changes in the paid loss development pattern is important, as paid loss development is a common technique used by actuaries when evaluating this business, and reliance on past patterns can be problematic when changes such as these shown in Table 4 occur. This is important not only when estimating reserves, but when estimating future payout streams as well.

V. Testing of Results

Next, we tested our results to attempt to see if the change in examined statistics occurred as a result of the business being placed into runoff or if the changes were because of the external claims environment, which may have impacted similar on-going business as well. Our tests compared the Company X and Y results (prior to and post runoff) to those of the ongoing industry, as represented by the PIAA.

Table 4
Ratio of Claims Closed with Payment in a Given Calendar Year to those Closed with Payment in the Prior Calendar Year for a Given Report Year.

	Company X				PIAA	
Period	Pre-runoff	Post-Runoff			3-Year Avg Pre-Runoff of X	3-Year Avg Post-Runoff of X
(Months)	3-Year Avg	Year 1	Year 2	Year 3		
12-24/0-12	2.17	14.50	14.00	-	2.75	2.93
24-36/12-24	1.25	9.33	5.74	3.71	0.99	1.12
36-48/24-36	0.61	5.00	2.87	0.73	0.76	0.68
48-60/36-48	0.61	3.50	3.17	0.50	0.58	0.57

	Company Y		PIAA	
Period	Pre-runoff	Post-Runoff	3-Year Avg Pre-Runoff of Y	First Year Post-Runoff of Y

(Months)	3-Year Avg	Year 1		
12-24/0-12	2.90	7.00	2.45	3.71
24-36/12-24	1.03	1.32	1.05	1.12
36-48/24-36	0.59	0.85	0.68	0.65
48-60/36-48	0.73	0.74	0.64	0.68

Table 5
Average Losses Paid per Claim Closed with Payment in a Given Calendar Year
By Age of Reported Claim ($thousands)

	Company X				PIAA	
Period	Pre-runoff	Post-Runoff			3-Year Avg Pre-	3-Year Avg Post-
(Months)	3-Year Avg	Year 1	Year 2	Year 3	Runoff of X	Runoff of X
0-12	34.6	12.0	-	-	92.6	136.8
12-24	159.0	82.1	90.4	192.1	161.6	209.2
24-36	195.0	105.4	118.3	137.2	180.5	209.5
36-48	175.3	133.1	150.4	132.9	166.2	206.1
48-60	173.8	93.1	102.2	105.9	173.0	234.5

	Company Y		PIAA	
Period	Pre-runoff	Post-Runoff	3-Year Avg	First Year
(Months)	3-Year Avg	Year 1	Pre-Runoff of Y	Post-Runoff of Y
0-12	185.3	120.3	132.9	126.7
12-24	257.1	212.7	200.4	205.3
24-36	292.5	248.3	198.1	221.0
36-48	237.9	221.9	199.8	222.7
48-60	206.7	103.9	209.2	257.6

Table 6
Ratio of Paid Loss in a Given Calendar Year to Paid Loss in the Prior Calendar Year
By Age of Claim Report Year

	Company X				PIAA	
Period	Pre-runoff	Post-Runoff			3-Year Avg Pre-	3-Year Avg Post-
(Months)	3-Year Avg	Year 1	Year 2	Year 3	Runoff of X	Runoff of X
12-24/0-12	15.82	15.87	105.47	-	4.92	4.51
24-36/12-24	1.71	5.25	8.26	5.64	1.17	1.17
36-48/24-36	0.63	3.71	4.09	0.82	0.73	0.70
48-60/36-48	0.54	4.09	2.43	0.35	0.60	0.67

	Company Y		PIAA	
Period	Pre-runoff	Post-Runoff	3-Year Avg	First Year
(Months)	3-Year Avg	Year 1	Pre-Runoff of Y	Post-Runoff of Y
12-24/0-12	3.80	7.69	4.20	4.98
24-36/12-24	1.05	1.93	1.19	1.08
36-48/24-36	0.52	0.72	0.70	0.69
48-60/36-48	0.69	0.35	0.59	0.85

As each of the tables above demonstrate, the data for the PIAA is reasonably close to that of Company X and Y prior to runoff. The PIAA statistics remain consistent (or rise expectedly as for the average paid claim amounts) for the years after each of the

companies placed its medical professional liability business into runoff. Based on this information, we concluded that our comparisons of Company X and Y data prior to and post runoff were not biased by any external events that would have affected the industry as a whole.

VI. Impact of Results

The knowledge of these results and conclusions stated above may affect the different entities involved in different ways:

Claimants: Claimants may receive lower settlements than if their claims were filed with an on-going insurer, particularly if the company is in liquidation. If the company is not in liquidation, the lowered settlement amount maybe offset somewhat by receiving the settlement faster.

Estate Managers/Company Management: These entities may benefit from lower settlements, offset somewhat by faster payment of claims. Lower settlements may result in more money available for larger claims or for other creditors. Benefits may also arise to the extent there are any profit-sharing provisions in reinsurance arrangements that have not been previously exhausted.

Other Solvent Insurers: On-going insurers must often foot the bill for insolvencies through IGAs. Lower settlement values benefit these insurers, somewhat offset by earlier payments.

Reinsurers: When an insurer enters into financial difficulty, and in particular becomes insolvent, the nature of the insurer's relationship with its reinsurers may change drastically. The insurer may no longer be viewed by reinsurers as a source for future business, but rather more a sink of administrative expenses and demands for accelerated payments. A liquidator or receiver of an insurer may also be more likely to turn to litigation or arbitration when problems arise, adding to the friction in the new relationship and perhaps damaging the reputation of the reinsurer.

While no reinsurer intentionally seeks business from troubled insurers, it appears from our work that there may be some surprising benefits. As we have described, once a company enters liquidation, there may be a stay on all litigation for a period of 3 to 6 months. This may be followed by a longer period in which the IGAs receive claim files and start processing claims. As a result, reinsurers may not be forwarded claims for recoveries until a year or more after anticipated at contract origination. This period may elongate, as reinsurers also may not be accommodating in forwarding timely recoveries. Reinsurers may scrutinize claim settlements and coverage decisions more closely, as again, there is no future relationship to potentially jeopardize. The total delay in payment results in greater investment income accruing to the reinsurers.

Also, the number of claims may be affected in a liquidation, as a claim bar is often in place 18 months or less after liquidation. This limits the total number of claims eligible for coverage and reinsurance. Also, as we have shown, excess of loss reinsurers may benefit, as claim payments appear to settle for lower amounts post liquidation.

VII. Putting Results to Work

After reviewing the results presented above, it is important to understand how to put them to use when estimating loss reserves. A summary of suggestions to adjust basic loss reserving methods based on our experience is presented below.

- Consider relying on paid methods in addition to incurred methods, if possible. The case reserve levels for runoff lines, particularly for companies in financial difficulty, are often distorted due to inattention or even intentional underreserving. While there may be some distortion in the historic paid losses, it is probably more reliable than incurred loss data as it is more difficult to intentionally manipulate paid loss data.

- One may want to use historic claim frequency levels, perhaps adjusted higher to reflect a possible deterioration in underwriting if there is evidence of such, to estimate ultimate claims, rather than simply developing the claims paid or reported to date. As shown above, a runoff situation can cause acceleration in the timing of claim closings. When observed, this increase should not necessarily be interpreted as an increase in the ultimate frequency of claims. The historic frequency level for the book of business may be a reasonable a priori value to use when estimating ultimate claims, especially for medical malpractice, where claim frequency trends have been relatively low lately. The frequency may need to be adjusted upward to reflect any deterioration in the experience that caused the company's financial difficulties. The downside to using historic frequency to estimate ultimate claims is that it may be difficult to establish appropriate exposures for more recent years.

- For a "counts and averages" reserving method, one may want to adjust the projected paid claim severities to reflect the affects of potential discounting and the involvement of IGAs in settlements. As shown above, there is an impact on the average paid claim size because of the runoff environment. To account for this, for a company in liquidation, one may want to lower projected paid loss severities using increased limit factors based on the average IGA limits in effect in the states where the company wrote most of its business and where its claims will ultimately be settled and other factors.

- For the paid loss development method, one may want to restate the historic paid loss triangle to address the speed-up in claims closing and decrease in average claim payments before selecting a payment pattern. This can be accomplished in a manner similar to that presented in other CAS papers, such as that by Berquist and Sherman, that adjust historic loss experience for speed-up in claims closing and reserve strengthening. Specifically, the amount (in terms of time) of speed-up in payments

can be measured by calculating the percentage of ultimate claims closed, using ultimate claims calculated as described above. For example, while historically 25% of all claims may be closed in the first 24 months, now 50% of estimated ultimate claims may be closed due to the speed-up in settlement. If historically, it took 48 months for 50% of claims to close, there is an approximate 2-year speed-up in payments. Historic paid loss severities for the 48-month evaluation can be discounted 2 years and used for the loss severity at 24 months. Adjustment can also be made to severities for the impact of IGAs on claim settlements and other factors as described above for the counts and averages methods. These severities can be multiplied by the estimated number claims closed for each evaluation to determine total paid losses for each evaluation.

VIII. General Conclusions

We have analyzed the impact on selected claim and loss statistics for medical malpractice insurance when this line of business is placed into runoff. The impact observed in the two companies reviewed is a measurable speed-up in the settlement of claims with a corresponding decline in the average amount of paid loss severity. This information should perhaps be recognized in any methods used when performing loss projections for this type of business.

IX. Limitations

The lack of available data prevented us from performing further tests. It is important to note while performing loss projections for runoff companies, that the data may be inaccurate or intentionally distorted. Upon liquidation (and sometimes a factor that can lead to liquidation), many files are misplaced or lost along with institutional knowledge as staff departs. We have made our best effort to limit the impact of any distortions in the data used in this analysis.

X. Further Research

Our analysis focused on the impact of the runoff environment on medical malpractice claims. It would be interesting to test the same statistics presented here for other lines of business. Also, another possible variation would be to test these same statistics for on-going insurers not in financial difficulties that place lines such as medical malpractice into runoff. With a healthy balance sheet and active claims department, the results may prove to be very different.

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