

EXAM 5, FALL 2013

18. (2 points)

For each scenario described below, justify an appropriate reserving technique for estimating the unpaid claim liabilities at 12 months maturity.

a. (0.5 point)

Excess of loss reinsurance with an average attachment point of \$100 million on product liability policies.

b. (0.5 point)

Basic limits auto liability for an insurer that has recently implemented a new claims processing system to make faster payments to insureds without changing the company's reserving methodology.

c. (0.5 point)

Self-insured workers compensation for a large corporation in a state where the statute of limitations for filing a claim has been recently reduced.

d. (0.5 point)

Property catastrophe coverage in a year with higher-than-expected catastrophe losses reported to the insurer but not yet paid.

Exam 5 – Question #18 (example 1)

- A. Bornhuetter Ferguson method because at 12 month data will fluctuate a lot and will be thin and volatile. Unreported ultimate @ 12 months will be based on expected claims.
- B. Berquist-Sherman settlement rate adjustment because it will adjust the paid triangle for faster payments.
- C. Paid and reported triangle both will be affected. Using expected claim will be most appropriate as it relies on a prior than on claims observed in past.
- D. Bornhuetter Ferguson paid method because you don't want to include the catastrophe effect on data because it will distort age to age factors. Because it is at 12 months want to use BF because LDF are highly leveraged. You do have to add provision for expected loss to BF paid method.

Exam 5 – Question #18 (example2)

- A. Use BF technique. Because excess of loss reinsurance can be very severe. Should not let early immature loss distort the reserving.
- B. Use BS paid claim technique, because the new system speed-up the closure rate. Need to adjust the paid loss pattern.
- C. Use the expected claim technique as both paid and reported will be distorted by the volume of claims coming in.
- D. Use BF reported loss technique. It can adjust the effect of big loss but also not distorted by it.

Exam 5 – Question #18 (example 3)

- A. Use the expected method since these claims will probably not be stable or frequent. Expected method will provide a stable estimate.
- B. Berquist Sherman adjustment settlement rate. This will adjust claims prior to the processing change so can be used in development method.
- C. Need to adjust for change in reporting pattern. Could use Berquist Sherman case adjustment because many claims may be reported that could be expected to close with \$0 payment.
- D. BF paid method. Report will be distorted and BF paid will account for any large possible LDF leverage for earlier years. Add large loss load after calculating method.

Exam 5 – Question #18 (example 4)

- A. Expected claim method, because \$100 Million is high limit. It may take a long time for full development of liability. Recent experience is not reliable.
- B. Using Berquist Sherman paid claim adjustment method to reflect recent settlement pattern change, which does not related to reserving change.
- C. Frequency Severity disposal rate method to reflect expected claim frequency and severity change as a result of limitation change.
- D. BF method with paid development, since the CAT loss is one time event, it should not affect the estimation in general, but we may add some additional CAT loss unpaid, or adjust expected claim ratio a little bit, into ultimate estimation claim.

18.

- a. Many candidates acknowledged that data at this attachment point would be thin and volatile. In addition, about half the candidates received either partial or full credit on this question. The most common method listed that did not receive credit was the Cape Cod method. This was not accepted because the expected loss ratio used in the method is based off the experience and at such a high attachment point there is little to no experience.
- b. A large portion of candidates received no credit for using the reported development method with justification that this method will not be impacted by the change. Both the paid and reported development methods are distorted by the new claims processing system. For full credit, the candidate needed to acknowledge there would be a change in the claim reporting pattern and select a method that would account for this appropriately, such as the paid Berquist-Sherman method. Some responses said case reserves would be impacted and to use an incurred Berquist-Sherman method - no credit was awarded as the reserving philosophy did not change.
- c. Some candidates incorrectly interpreted the change in statute of limitations as a change in benefit limits (instead of a reduction in the time to file a claim). Thus, some candidates said ultimate losses would increase/decrease as a result. In addition, a portion of the candidates that acknowledged there would be a speed up in claims filed stated that the paid development or paid BF methods would be suitable. No credit was awarded for this as there would be a change in the payment pattern. Some candidates listed the case outstanding method as an appropriate method as it works well with self- insurers. However, the case outstanding is best for claims made coverage which workers compensation is not.
- d. Many candidates mistook property catastrophe coverage for property coverage. Thus, this led to candidates selecting a method more fit for property coverage instead of property catastrophe coverage. For instance, many answered separating out the catastrophe portion and completing a separate analysis on this piece as a method, which received no credit. For points to be awarded for justification, the candidate needed to demonstrate that they understood that there was a distortion due to the higher than normal catastrophe activity but at the same time incorporate that into the method. Also, a fair amount of responses suggesting using the paid development method with a catastrophe load. This was not an acceptable method as the development method is inappropriate for this type of coverage. Lastly, catastrophe modeling was listed as a method. No credit was awarded for this method because catastrophe modeling is not a reserving technique, but rather a prospective pricing tool.