

6.5.2 Analyzing the Cape Cod Method

 5m

As we've discussed in previous sections, changing environmental factors can impact various reserving methods, including the Cape Cod method. Let's examine how these changes can influence the results produced by this method. Impacts to the Cape Cod method are similar to the impacts to the B-F or Benktander methods, with the notable difference that the ECR for the Cape Cod method is actually directly based on historical data.

Changes in Claim Ratios

The Cape Cod method derives its ECR from actual reported data, giving considerable weight to recent accident years. This reliance on current data makes the method more reactive to changes in claim ratios than the BF method, which uses a pre-selected ECR that may remain fixed despite emerging trends. However, the Cape Cod method lacks the full adaptability of the development technique, which directly reflects observed loss emergence.

Consequently, if claim ratios are increasing, the Cape Cod method may not keep up fast enough, leading to an understatement of unpaid claims. Conversely, if claim ratios are trending downward, the method may overstate unpaid liabilities. These lagging adjustments can cause inaccuracies when the claims environment is experiencing volatility, making the Cape Cod method less dependable during such periods.

However, it is still more accurate in this case than the BF method would be since the ECR would at least partially adapt to the increasing claim ratio, producing a more reasonable estimate of expected future claims

Changes in Case Outstanding Adequacy

The Cape Cod method relies on reported claim data, which includes both paid claims and case reserves. Because of this, any shift in how conservatively or aggressively claims are reserved directly impacts the method's output. If case reserves become more inflated—i.e., adequacy increases—the reported claims appear larger, causing the method to overshoot its estimate of ultimate losses. If, on the other hand, case adequacy declines, reported amounts shrink, leading to a downward bias in the Cape Cod estimate.

In terms of reliability, Cape Cod typically yields less accurate results than the Bornhuetter-Ferguson method in environments where case adequacy is shifting. This is because the Cape Cod ECR is based on reported data and would respond to the increase in reported claims, whereas the B-F method separates the expected future claims from the actual reported data.

Still, the Cape Cod method is less vulnerable to such distortions than the development method, which is fully driven by reported development and thus more sensitive to changes in reserve strength.

Changes in Product Mix

The Cape Cod method assumes that past experience provides a reliable basis for estimating future claims. However, when an insurer's portfolio shifts toward different products—especially those with varying claims development patterns or severity levels—this assumption can break down. Because Cape Cod blends data across historical periods using reported losses and premiums, it may fail to capture the nuances introduced by a new or evolving mix of business.

For example, if recent growth is concentrated in a product line with slower development or lower expected losses, the method might still project future claims based on older, less representative experience. This reliance on historical averages can distort projections, leading to inaccuracies in the presence of meaningful shifts in product composition.