

Factors to consider for claims ratio projections of a private medical insurance business

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Introduction

Annual claims ratio¹ projections for private medical insurance (PMI) business can help various stakeholders understand the factors that affect the future profitability of the business. For PMI business, one of the effective ways to project claims ratios is via a cohort analysis, i.e., tracking the claims ratios of a group of policies underwritten in a particular year for its subsequent durations,² and repeat the process for each underwriting year. This article focusses on claims ratio projections in the context of the Indian health insurance market.

For claims ratio projections, it is important to understand various factors which can influence the two main cash flows: premiums (composed of the number of policies and average premium size) and claims (composed of the number of claims and average claim size). Broadly, seven factors have an impact on claims ratio projections: future medical trend, new business growth rate, premium revisions, change in business mix, persistency rates, durational impact and selective lapsing.

Future medical trend includes two components: one is the change in severity, which is linked to wage and price inflation; the other is the change in frequency, which refers to changes in the utilisation of medical services due to increased disease burden, improved medical technology, change in proportion of income spent on healthcare and greater policyholder awareness.

As the claims ratio typically increases with policy duration, having more new business (at duration 0) implies an overall low claims ratio. The growth of new business increases the premium of an insurance company and leads to a depression of the claims ratio when the new business growth is higher than the growth of renewal business. That is why, in the initial years, health insurers usually achieve favourable claims ratios due to large new business growth. However, this can create issues in later years when growth of new business is more limited due to increased competition and saturation of the health insurance market.

Future premium changes take into account revisions in the premium rates that an insurer plans for the next few years, generally to account for future medical trend, actual claims experience and change in policy benefits. While an upward premium review has a direct impact of increasing the premiums and lowering the future claims ratio, it can also have an indirect impact on claims as well via selective lapsing, which we discuss later in this article.

Change in business mix by various risk factors such as sum insured, age, distribution channel and geographic location impact both the claims and premium sides. The net effect of the change in mix on the future claims ratio depends on the relative business mix change in the claims cost with respect to the premium written, because not all of these factors are captured in the premium rating structures.

Persistency rates can have a direct impact on the premiums and are usually calculated by each policy duration. It is common in PMI business to have a relatively lower persistency rate at duration 1, higher persistency rate at duration 4 and then stabilising from duration 5 onwards. After duration 5, the persistency rates are higher and stable because policyholders become more familiar with the policy rules and have a better understanding of how the claims process works. Thus, policyholders during these durations largely stick to their ongoing policies. This is especially true for higher sum-insured policies.

The durational impact on claims costs comes from two aspects: the first is the waiting period for blanket exclusions plus the waiting period for preexisting conditions, and the second is the underwriting wear-off effect. The impact of duration occurs at two points in time: once when the waiting period of the blanket exclusion terminates (this period is usually either 12 months or 24 months) and the second when the waiting period for preexisting conditions terminates (this period is usually 48 months). At the termination of waiting periods, policyholders can claim for more health conditions, thereby increasing the utilisation of claims at those durations. Furthermore, underwriting wear-off can lead to increases in claims costs because the once healthy individuals at the time of underwriting may develop medical conditions over time. This effect is over and above the effect of biological ageing leading to worse health and is partly a result of regression to the mean effects.

¹ Claims ratio can be defined on various bases, i.e., on paid or incurred bases, and premiums can be defined on written or earned bases. In simple terms, claims ratio is calculated as claims divided by premium.

² Duration of a policy refers to lifetime of a policy since its inception, which is calculated as the period (in years) between the exposure year and the policy issuance (or underwriting) year.

An upward premium review can lead to higher selective lapsing, i.e., healthy policyholders leaving the policy for a cheaper one, with unhealthy policyholders persisting with the policy. The unhealthy policyholders are able to persist with the policy due to the clause of guaranteed lifetime renewability. The clause of guaranteed lifetime renewability, which is prescribed by the Indian regulator, ensures that a policyholder cannot be refused insurance once the policyholder has been enrolled by the insurance company. Higher selective lapsing can worsen the claims ratio by increasing the claims frequency due to concentration of a larger pool of unhealthy risks.

Conclusion

To understand the impact of each factor, it is important to conduct sensitivity analyses, e.g., by considering the impact on future claims ratios in cases of higher, lower and no new business growth compared to the base estimate. Additionally, it is useful to do scenario testing for a combination of likely situations (e.g., a combination of higher new business growth rate, lower premium revisions and lower selective lapses)

The advantage of conducting a cohort analysis is that the user can project claims ratios at different durations for each underwriting year. This gives a more comprehensive view of how the portfolio is going to perform at future durations and policy years. However, the limitation of such an analysis is the large number of assumptions that would need to be made with respect to each factor. Sensitivity testing and scenario testing can help to identify the key assumptions and scenarios that impact the future claims ratios and encourage management to consider the risks and whether they are consistent with its risk appetite and to explore strategies to manage these risks while remaining competitive.



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