Many companies offering long-term care insurance (LTC, LTCI) unfortunately face large future claims losses. To manage the financial health of their in-force blocks, these companies often seek premium rate increases. Rate increases can be difficult for policyholders to afford, especially as companies seek multiple increases over many years.

In order to provide insureds with more options than a full lapse after being informed of premium increases (i.e., dropping coverage because it is unaffordable), LTCI companies often present reduced benefit options (RBOs) within policyholder notice letters. Recently, companies have offered RBOs that are not already available to the insured within the original contract but rather only available at the time of the rate change. The RBOs that are presented may help an insured manage benefits such that the ending premium after the rate schedule increase is similar to the premium paid prior to the increase.

The RBOs that LTCI companies traditionally offer take the form of a reducing benefits to other existing, lower benefits. The following examples illustrate options that companies might offer:

- Reduction in daily benefit amount (e.g., from $200 to $160)
- Reduction in benefit period (e.g., from lifetime to 10-year)
- Increase in elimination period (e.g., from 30-days to 90-days)
- Reduction in annual benefit increases (e.g., from a 5 percent compound inflation to 3 percent)

- Contingent nonforfeiture benefits, allowing the policyholder to stop paying premiums altogether in return for a benefit pool equal to the sum of the premiums paid

As we see in the in these examples not all RBOs are developed with equivalent values. This article explores in detail two methods of developing RBOs: the future loss ratio (LR) neutral approach and the cash flow neutral approach. We discuss the considerations that LTCI companies have when deciding to offer these options, and we examine the implications from a regulator’s point of view.

There are industry discussions about the concept of “actuarial equivalence” as a lens through which to view premium rate increases (for instance, Bergerson and Hebig, 2017, discusses actuarial equivalence among different premium rate increase strategies). We believe this is an important discussion, though the industry has not reached consensus on the meaning of “actuarial equivalence.” To avoid potential confusion, we have used other terms throughout this article.

**FUTURE LOSS RATIO NEUTRAL APPROACH**

LTCI companies seek premium rate increases, and file new premium rate cards representing the higher rates. To offer a future loss ratio neutral RBO, the company uses the new, higher rates but applied to a lower benefit. The lower benefit may be selected in such a way to offset the impact of the premium rate increase. The final premium rates are presented to the policyholder in a notification letter. This approach maintains the same expected future loss ratio under certain assumptions as we show in the following illustration.
The future loss ratio neutral approach bases the value of the RBOs on existing premium rates and is therefore relatively easy to administer. This approach may also be the easiest for policyholders to understand.

For example, a company may seek to raise premium rates on all policies by 25 percent. A policyholder with a $200 daily benefit and a 10-year benefit period, who is facing a 25 percent rate increase, may choose the following RBO: elect to reduce the daily benefit to $160 ([$200 / (1+25%)]) and maintain the same annual premium amount as prior to the rate increase. The premium rate per dollar of daily benefit still increases by 25 percent.

These RBOs can produce similar future loss ratios, as the increase in premiums is exactly offset by a proportional reduction in future claims.

1. Future LR, pre-rate increase: \(= \frac{\text{PVFC}}{\text{PVFP}}\)
2. Future LR, after 25 percent rate increase: \(= \frac{\text{PVFC}}{\text{PVFP} \times (1+25\%)}\)
3. Future LR reducing future daily benefit by 20 percent: \(= \frac{\text{PVFC} \times (1 - 20\%)}{\text{PVFP}}\)

The impact of RBOs on a policyholder’s annual premium is determined by using the increased premium rates on file with the state insurance department, then selecting the lower benefit option. A company offering the daily benefit RBO described above can—under certain assumptions—maintain the future loss ratio. Other RBOs offered by the company will not necessarily maintain the future loss ratio.

Figure 1
RBO Example (60% original pricing loss ratio)

<table>
<thead>
<tr>
<th>Description</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Expectation</td>
<td>$1,000</td>
<td>$5,500</td>
</tr>
<tr>
<td>10% higher morbidity + 83% rate increase</td>
<td>$1,833</td>
<td>$5,500</td>
</tr>
</tbody>
</table>

Future LR (b/a) 550% 300%

Lifetime LR 65% 60%

a – b ($4,500) ($3,667)

RBO daily benefit $200

The cash flow neutral approach A company may design an RBO that maintains the net dollar impact of increased premiums with that of lower claims, on a present value basis. We refer to this approach as the cash flow neutral approach, because the concept is intended to recognize the impact of the RBO on the present value of future claims (PVFC) and the present value of future net premiums (PFVP). We are not suggesting that the cash flow neutral approach equates all future cash flows in any way, but rather aims to equate the impact of the RBO on the present value of future cash flows. We also recognize that some premium components (e.g., premium taxes) will make exact cash flow neutrality difficult, but the concept is useful nevertheless.

We continue the previous example:

The company originally priced the LTCI policy anticipating a 60 percent loss ratio. Many years following the initial pricing, the company adjusts its expectation of future morbidity, raising it by 10 percent. At that point, the company expects from a policyholder a present value of future claims of $5,500 and a present value of future net premiums of $1,000 (Column 1 of Figure 1). To maintain the health of the business, the company seeks an 83 percent rate increase on future premiums to achieve the original 60 percent lifetime loss ratio (Column 2). Figure 1 compares the RBO equating the future loss ratio (Column 3) with a hypothetical RBO equating future dollars, i.e., the cash flow neutral approach (Column 4).

<table>
<thead>
<tr>
<th>Description</th>
<th>Future Loss Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. PV(Fut Prem)</td>
<td>$1,000</td>
</tr>
<tr>
<td>b. PV(Fut Claims)</td>
<td>$3,000</td>
</tr>
<tr>
<td>Future LR (b/a)</td>
<td>300%</td>
</tr>
<tr>
<td>Lifetime LR</td>
<td>40%</td>
</tr>
<tr>
<td>a – b</td>
<td>($2,000)</td>
</tr>
<tr>
<td>RBO daily benefit</td>
<td>$109</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Cash Flow Neutral RBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. PV(Fut Prem)</td>
<td>$1,000</td>
</tr>
<tr>
<td>b. PV(Fut Claims)</td>
<td>$4,667</td>
</tr>
<tr>
<td>Future LR (b/a)</td>
<td>467%</td>
</tr>
<tr>
<td>Lifetime LR</td>
<td>60%</td>
</tr>
<tr>
<td>a – b</td>
<td>($3,667)</td>
</tr>
<tr>
<td>RBO daily benefit</td>
<td>$170</td>
</tr>
</tbody>
</table>
Developing Alternative Options During LTC Premium Rate Increases

In this example, while the future loss ratio neutral RBO maintains the future loss ratio of 300 percent (Columns 2 and 3), the cash flow neutral daily benefit RBO maintains the net present value of cash flows of $3,667 from after the proposed rate increase (Columns 2 and 4). Notably, in the cash flow neutral RBO, the new daily benefit is $170 (=$200 x $4,667 / $5,500) compared with the future loss ratio neutral approach where the new daily benefit is $109 (=$200 x $3,000 / $5,500). The greater policyholder daily benefit under the cash flow neutral RBO ($170 vs. $109) stems from the fact that the cash flow neutral approach recognizes the policyholder’s pre-funding of future benefits.

When policyholders elect RBOs they stand to lapse part of their existing benefit, and thus reduce their lifetime loss ratio expectations.1 Under a cash flow neutral RBO, the policyholder recognizes the highest lifetime loss ratio compared with most other methods of RBO offered today. As a result, some carriers consider the cash flow neutral RBO the more policyholder-positive approach that still recognizes the financial health of the company in seeking a premium rate increase.

These RBOs may help secure needed rate increases from regulators and mitigate some of the reputational risks that ongoing rate increase actions pose.

Companies may create cash flow neutral RBOs using many of the parameters of a policyholder’s LTCI plan. For instance, a company may need to raise premium rates on lifetime benefit period policyholders. As an option to mitigate this increase, the company could offer a cash flow neutral benefit period RBO. This RBO may reduce the benefit period to another that the company already offers, assuming the calculation indicates neutrality, or it may reduce the benefit period to a new option.

Though all may not have been fully cash flow neutral, some companies have filed and administered non-standard RBOs for LTCI blocks over the last 10 years. These RBOs have made an effort to consider the policyholder pre-funding in determining the ultimate post-rate increase reduced benefit level. While not an exhaustive list, the cash flow neutral RBOs have included reductions in future inflation protection, benefit periods, daily benefit level, and an option that requires the policyholder to pay an additional coinsurance during claim. Cash flow neutrality can also be a useful lens through which to view potential policyholder buy-out options, though the actuary should take special consideration when applying aggregate assumptions at the policy level.

COMPANY CONSIDERATIONS

Most LTCI policies were fully underwritten to mitigate policyholder anti-selection. Because LTCI sales peaked in the mid-2000s, the majority of policyholders in force are likely reaching an ultimate morbidity period where the favorable impact of underwriting selection has worn off. As a result, companies should be prudent when extending RBOs to individuals who are reaching peak claim ages. These individuals may be more aware of their own health and the likelihood that they will trigger a future LTCI claim, compared to when they purchased the policy. In particular, most carriers may view the event of a premium rate increase as the only viable time to offer cash flow neutral RBOs.

The company will need to notify the policyholder of a rate increase, and this communication is a natural time to offer any unique RBOs. Companies may not wish to offer cash flow neutral RBOs outside of the premium rate increase window due to many concerns. First, offering a cash flow neutral (as opposed to future loss ratio neutral) RBO may pose concerns of equity among other policyholders who voluntarily elected standard RBOs outside of the rate increase window. LTCI companies have always anticipated lapsation, both partial and full. In the regular course of business policyholders may request reductions in benefits. Allowing for cash flow neutral RBOs outside of the rate increase window will, in most cases, disrupt equity between otherwise similar policyholders.

Many companies develop the justification for premium rate increases making assumptions about shock lapses and anti-selection. A company introducing a cash flow neutral RBO (if they had not before) may adjust these assumptions based on their new expectation of policyholder behavior. This change in assumptions can impact the magnitude of the premium rate increase requested.

Companies will also need to consider the administrative implications of offering new benefit options. New product codes and premium rates will need to be loaded into administrative systems, and IT departments will need to conduct rigorous testing to ensure proper policy administration. Some companies have installed ‘in force management’ teams that routinely work on these tasks, but others may not have the infrastructure available to implement these changes. Part of the company’s role is to monitor the permutations of potential benefit offerings that arise from developing new benefit levels during ongoing premium rate increases. The company should have in place a long-term operational strategy to handle these complexities.

In some instances, states have requested that companies implement larger premium rate increases as a series of smaller premium rate increases. In these cases, offering a new RBO at each step of the serial rate increase would produce exponentially more premium rates to administer. Most companies are not equipped to handle such complexity, and doing so could be very costly.
Newly offered benefits (say, a lower inflation option or a new benefit period) will require new endorsements to be filed in all states. A company offering cash flow neutral benefits should also develop a policyholder notification letter describing the RBO and why it is being offered at this time. These policyholder letters require filing with most states, and should be crafted with the assistance of the company’s marketing team. The letter should disclose the value of each of the options offered and should not steer the insured to one offer over the other.

Company actuaries will need new benefit options and data indicators flagging the cash flow neutral RBOs. New assumptions may need to be loaded into actuarial models. Some changes to assumptions may be due to anti-selection (see next paragraph). In the instance of new, lower benefit options, actuaries may modify the benefit utilization (or salvage) assumption. Moreover, if ongoing rate increase offerings produce a wide array of benefit levels, the actuary must be sure that the assumptions for all policyholder attribute combinations hold together. Actuaries will also want to monitor experience closely, including the take-up rates of any RBOs and potentially review longitudinal studies of policyholders as they move from one benefit level to another.

Policyholders who retain their benefits in the face of premium rate increases may have an understanding that they are more likely to use their benefits than the average policyholder. As a result, actuaries may anticipate some anti-selection among policyholders who elect to take the full rate increase. This anti-selective behavior should be considered in setting the cash flow neutral RBOs and the initial premium rate increase. The actuary should also consider the policyholder response to the company presenting an entire suite of options at the time of a premium rate increase.

**REGULATORY CONSIDERATIONS**

Cash flow neutrality has not been a requirement of historical RBO practice and is not necessarily a requirement today. However, it is important for the regulator to consider whether cash flow neutrality might be required in certain situations or whether the additional offer is a benefit to consumer choice and therefore may not need to be cash flow neutral.

There has never been a requirement for a full lapse on- or off-rate increase to produce cash flow neutrality to the company or insured. LTCI policies traditionally do not have cash value and those with nonforfeiture or return of premium riders have not necessarily been designed to produce cash flow neutrality.
Instead, they produce optionality to the insured. Optionality is a benefit itself, and provides economic value to the consumer in its own particular utility function. The value from optionality of this type is not easily measured, so it is not directly comparable with cash flow neutral approaches. RBOs as partial lapses are generally available to insureds even when rate increases are not going into effect. These partial lapses are not cash flow neutral to the insured. Prior to special offer RBOs being introduced, a policyholder could elect to partially lapse during a premium rate increases to manage their resulting premium payment. The policyholder could do so by reducing their benefit, and in this case cash flow neutrality is not a consideration. In any case a disclosure to the policyholder could be required.

The regulatory requirement to offer contingent nonforfeiture (CNF) benefits does not produce cash flow neutrality. In general, there is a lot of room for improvement in the disclosure of CNF benefits, given the dramatic reduction in value to the policyholder. Improved CNF disclosure could prompt better disclosure in the future for standard (future loss ratio neutral) RBOs and cash flow neutral (or other) RBOs.

The level issue age premium structure of LTCI does not contractually allow credit for past premiums in excess of past costs of insurance. As a result, using a lifetime loss ratio standard to determine the reasonableness of offering RBOs to only certain segments of a block of business—without giving similar consideration to the remainder of the block—could implicate requirements in most state health insurance rating statutes that policy provisions are also fair and equitable.

Special RBOs, which may be the case with cash flow neutral RBOs, are often only available to certain rating cells with richer benefits. It is extremely important to contemplate the appropriateness of the resulting premium rate schedule as reasonable (and fair) across the block. We note especially that the future loss ratio neutral RBOs (or almost-neutral options, which may be the case in reductions to benefit periods or other policy features) are available at any time, not just during rate increases. As we demonstrate in the previous example, if an insured elects a particular RBO, and substantially reduces their lifetime loss ratio, the insured gives up value and the company benefits (possibly along with remaining insureds).

Finally we wish to emphasize that it is important for companies to appropriately disclose these options. RBOs and CNF options expire: they are one-time offers that cannot be revisited by the insured at a later date without another offer being made by the company. Companies should avoid steering and misrepresenting their RBO offers. In particular:

- Offers should not be presented as the predominant offer or the best choice available.
- Offers should not be presented as a way to “avoid” a rate increase. The premium rate schedule increase will happen to the customer no matter what. The customer may be able to manage the resulting premium payment to the company, but the rate for the current benefit is going up regardless. There is a difference between managing premium dollars spent and avoiding a premium rate schedule increase.

- Expiring opportunities should also be explained along with enough notice for an insured to make an appropriate decision about electing the opportunity.

Companies should take the event of a rate increase to communicate and educate their consumers, though companies have not always taken the opportunity to do this. In these cases where extracontractual offers are being made, such as cash flow neutral RBOs, it is even more important to take the opportunity to re-educate policyholders.

CONCLUSION
Companies will continue to file for LTC premium rate increases as they are justified. Compared with other traditionally-offered RBOs, some companies find that cash flow neutral RBOs can be a policyholder-positive approach. These RBOs may help secure needed rate increases from regulators and mitigate some of the reputational risks that ongoing rate increase actions pose.

Creating and administering cash flow neutral RBOs for most companies will likely be administratively burdensome and costly. For those who do create cash flow neutral RBOs, the companies can point to these efforts—which are often costly—in discussions with regulators, on investor calls, and through other media, as a demonstration of meeting stakeholders half-way, and doing so in a financially sound manner.

ENDNOTES


2. In this example we can imagine creating an RBO that maintains the lifetime loss ratio as well, though it would not be cash flow neutral as we’ve defined it.