CP 321 Model Solutions
November 2025

1. Learning Objectives:

1. The candidate will understand how to describe benefits typically offered under long duration contracts (disability income, long term care, critical illness, Medicare Supplement).

Learning Outcomes:

(1b) Describe each type of contract listed above.

(1c) Evaluate the potential moral hazards and financial and legal risks associated with each contract.

Sources:

Critical Illness Turns 40

Commentary on Question:

Candidate performance was mixed on this question. Those who performed well readily recalled the highlights of the source material.

Solution:

(a) Describe the circumstances that led to the advent of critical illness insurance.

Commentary on Question:

Candidates not familiar with the source material did not do well on this part of the question. The model answer below was derived from one of the top responses.

The founder of Critical Illness observed his brother conduct the first open heart surgery in South Africa, and witnessed the hardships that people underwent when they survived a devastating illness. The concept was thought of where people got a lump sum of money if they were diagnosed with a certain illness such as heart attack, stroke, major organ failure, or invasive cancer, to help offset the major personal expenses not covered by insurance.

(b) Describe the key assumptions an actuary should estimate and model when pricing critical illness insurance.

Commentary on Question:

Candidates performed better on this part of the question, demonstrating a strong understanding of the key assumptions involved. Below is a solid, concise answer derived from one of the candidate's answers.

1. Continued

Incidence/diagnosis rates relate to claim cost, this is the "cost" item for critical illness. Data for this is usually pulled from disease statistics for each trigger, adjusted, and then summed up. Lapse, mortality, and interest rate need to be accurate, since most CI policies are lapse-supported; these can be determined by internal data or competitor/consultant data. Expense and retention components are mostly derived from internal data, such as budget reports.

A critical illness actuary proposes adding a return-of-premium (ROP) rider to their company's 20-year term cancer critical illness product. If this rider is purchased, aggregated historic premiums will be returned to the policyholder upon the earlier of death or the end of the policy term, if no cancer claim is incurred.

(c) Describe additional assumptions and regulatory issues an actuary should consider in proposing this rider.

Commentary on Question:
Candidates did not perform as well on this cognitive component of the question. The response below is derived from a candidate who earned full credit. This candidate commented on the important effect that the design would have on the lapse assumption, a regulatory concern on the lapsation-related bait and switch possibilities, the point that the mortality assumptions become much more important. Another great point high performers commented on is that this rider would make the product far more expensive than the base cancer contract. Regulators might have more concerns over that topic too.

A return of premium rider would drastically lower the lapse rates of a policy, and effectively turn it into even more of a lapse-supported product (more profit if lapse rates are higher).

Lapse-supported products follow additional regulations on testing that they are not too lapse-supported or have "bait and switch" characteristics.

Mortality rates would become more important, and need to be used to determine the death benefit amount and timing from deaths, other than from those who already have had cancer payment triggers.

Other regulatory issues around this could arise if a client dies from an un-diagnosed cancer, and may deserve a higher lump sum benefit instead.

2. Learning Objectives:

2. The candidate will understand how to calculate rates for each of the contracts described in Learning Objective 1.

Learning Outcomes:

(2b) Calculate and recommend assumptions.

(2c) Calculate and recommend a manual rate (includes base rate development and applying a rating manual) and describe the role of data credibility used to calculate the rate.

(2g) Apply actuarial best practices in evaluating and projecting cash flows (premiums, claims, investment income, expenses, commissions), liabilities, and required capital.

Sources:

C321-100-25: Issues to Consider in Self-Funding Long-Term Disability Insurance, pages 3-4

Issues in Applying LTD Credibility pages 5-10

Commentary on Question:

Most candidates performed well on this question, though of note is that candidates did not relate the important point that larger employers that believe they are likely to cost less than insured rates are more likely to want to, or be able to (due to scale), self-insure an LTD plan. Those are also the types of employers that insurers want to keep insured. Most candidates instead pointed to "limit year-to-year volatility" or "high confidence in the manual rates" as key decision supports. Credit was given for those ideas and supports, but the idea of changing credibility in a way so that larger, healthier employers would keep insuring their plan was the ideal.

Solution:

(a) Describe challenges that arise for employers that self-fund LTD coverage.

Commentary on Question:

Most candidates did well on this part of the question. Below is an ideal answer, though somewhat shorter answers than this also received full credit.

Self-funding LTD loses the third-party guarantor aspect of the plan.
There is the risk of high volatility in benefit payments
LTD claims are often tied to the state of the general economy and issues in the employer's industry, which can lead to higher LTD costs at the same time as the employer's business may be performing sub-optimally.
Disagreements around claim approval/denial or continuation of payments can often be contentious or litigated, damaging employer-employee relations.

The employer would have to have more complex accounting, and tax issue expertise needed/tax implications.

2. Continued

Plan administration is more complex/expensive.

Your team is deciding between the following credibility formulas:

Option 1: Credibility = Life Years of Exposure $* \frac{1}{4000}$

Option 2: Credibility =

$$\begin{cases} 0 & ; \text{ if Life Years of Exposure} < 500 \\ \text{Life Years of Exposure} * \dfrac{1}{1500} & ; \text{ if Life Years of Exposure} \geq 500 \end{cases}$$

(b) (i) Describe how the two credibility formulas could affect an employer's decision to self-fund its LTD benefits.

Commentary on Question:
Candidates did not perform as well on this part of the question in general, with some confusing the insurer perspective with the employer perspective. Keep in mind in this question that employers tend to have no insight into an insurer's credibility formula, but an insurer's rating methods can indirectly affect employers' decisions to choose one insurer over another, or the decision to self-fund its plan. Many candidates did not like the increase in credibility from 499 to 500 in one of the formulas, which received credit, but some alternatively brought up that disability for smaller employers perhaps does not warrant credibility, which also received credit.

For employers between 500 and 4000, Option 2 provides more weight to historical experience than Option 1. Option 2 is more likely to encourage employers with better historic experience to stay with fully insured LTD.

With either option, employers over 4000 years of life exposure will be fully credible and so decisions on self-funding and rating would be unaffected.

With Option 2, an employer with relatively poor experience under 500 years of life exposure would have their LTD priced in such a way that incorporates none of their experience into their rate. As a result, this could encourage them to choose to purchase insurance (and hurt the insurer's risk pool). Also, sudden employee count jumps around the 500 mark will likely make the insurance premium volatile for affected employers, which is against the insurer's goal of limiting year-to-year volatility. But small employers (such as under 500) are less likely to have the staff capacity and ability to self-fund a disability plan, and the experience is probably not very credible in reality, supporting Option 2.

2. Continued

(ii) Describe how the two credibility formulas could affect the performance of XYZ's LTD block.

Commentary on Question:
As with the commentary from (i), some candidates performed less well on this part because of a misunderstanding of their stakeholder perspective and which party chooses, understands, or applies the credibility formula.

Option 2 runs the risk of attracting small employers with a higher tendency of LTD claimants. If this experience has actual credibility in reality, this risk could lead to insufficient premiums relative to claims for smaller employers, to the degree that smaller employers are in the risk pool or upcoming prospects.

Option 1 runs the risk of large employers with good past experience (e.g., 3,000 years of life exposure) not choosing XYZ, or choosing to self-insure, since they do not receive the entire benefit of their more favorable environment embedded into their rate.

One should model and sensitivity test likely scenarios, reflecting employer size in the existing block and typical prospects.

One should also consider the actual credibility that is warranted from a credibility study.

(iii) Recommend which credibility formula XYZ should employ. Justify your response.

Commentary on Question:
Candidates typically provided support for their response and so received credit no matter which option they recommended. The candidates recommending Option 1 typically did so in order to support the goal of limiting year-to-year volatility. The following response is specific to a recommendation of Option 2.

I recommend Option 2 because it is more likely to fight against the trend of self-funding for larger employers with lower-than-average past disability experience. While this option may also encourage poorly performing smaller employers (under 500) to stay, that experience likely should have very low statistical credibility in reality and perhaps smaller employers are a low share of the pool.

(c) Calculate, for each duration bucket:
(i) The number of claims required for full credibility. State any assumptions made and show your work.
(ii) The blended termination rate. State any assumptions made and show your work.

2. Continued

See Excel for part (c) for question and answer.

Commentary on Question:
Candidates generally did very well on part c. Some did not apply the correct margin and Z-score.

3. Learning Objectives:

6. The candidate will understand how to design and perform valuations of retiree group benefits.

Learning Outcomes:

(6a) Describe why employers offer retiree group benefits'

(6b) Determine appropriate demographic, economic, and benefit assumptions and apply to a retiree health valuation'

(6c) Determine employer liabilities, service cost, and expense for post-retirement and post-employment benefits and prepare disclosure information for financial reporting purposes'

(6d) Describe current issues faced by governments, employers, and employees related to post-retirement and post-employment benefits'

Sources:

CP321-111-25 (FINAL) IAS 19 study note

Setting the Accounting Discount Rate for Pension and PEB Plans

CP321-110-25: MShepell – Handbook – 17th Ed-Ch 24

CP-321-115-25: Mercer Quick Poll 2022 Post-Retirement Benefit Trends

Commentary on Question:

Candidates overall performed well on this question. Candidates demonstrated an understanding of the retiree benefit landscape and issues facing employers. Candidates were able to develop per capita costs and create a cashflow model incorporating the necessary assumptions. Some common errors included understanding how to apply the aging assumption, how to express costs at age 65 and applying the termination assumption post retirement.

Solution:

(a) List and describe four reasons employers continue to provide retiree benefits

Commentary on Question:

Candidates did well on this part of the question. Most understood the reasons employers provide retiree benefits. Answers not on this list but were reasonable were also accepted.

Paternalism – employer may accept an obligation to take care of, or to reward, long service employees

3. Continued

Extension of active employee benefits – retiree benefits may be considered a natural extension of active employee benefits

Competitiveness – Retiree benefits may help employers to attract and retain employees, particularly employees with longer experience

Negotiation – Retiree benefits are often part of a union-negotiated package

Employee Entitlement/Employer Precedent - Providing post-retirement or post employment benefits may be influenced by both the employees' exceptions of having such a benefit in place and the exceptions that such entitlements will continue in the future. The employer may also continue the coverage simply because they have always done so.

Parity with Union Employees – if benefits are offered to union employees, employers may offer the benefit to non-union employees as well

(b) Describe four cost issues facing employers offering retiree benefits.

Commentary on Question:
Candidates also performed well on this part of the question. Most demonstrated a strong understanding of the issues employers are facing. Answers not on this list but were reasonable were also accepted.

Growing retiree population relative to active workforce due to demographic trends

Increasing life expectancy extending benefit payment periods

Healthcare cost inflation exceeding general inflation and wage growth

New medical technologies and specialty pharmaceuticals driving up treatment costs

Low interest rate environment increasing the present value of future obligations

Accounting changes requiring recognition of liabilities on balance sheets

Reduced Medicare/government program benefits shifting costs to employer plans

Increasing utilization of healthcare services among aging populations

3. Continued

(c) Derive the annual per member claims cost assumption, expressed at age 65. State any assumptions made and show your work.

Commentary on Question:
Most candidates were able to calculate the per capita cost, apply the weighting and expenses correctly. Some common errors were trending the claims cost to age 65 as opposed to trending to the valuation year, trending for the incorrect length of time and not applying the aging assumption.

See Model Solution in Excel

(d) Calculate the following for the employee:

(i) The defined benefit obligation as of December 31, 20X5. State any assumptions made and show your work.

(ii) The current service cost for fiscal year 20X6. State any assumptions made and show your work.

(iii) The interest cost for fiscal year 20X6. State any assumptions made and show your work.

Commentary on Question:
Most candidates were able to create a cashflow model incorporating the various assumptions and understood how to go from Present Value of Future Benefits (Expected Benefit Obligation) to Defined Benefit Obligation and Service Cost.

Some common errors were not applying the aging assumption correctly, not calculating the attribution period correctly and applying the termination assumption post retirement.

A popular alternate solution among candidates was to calculate the present value of future benefits from age 65 onward and applying a deferral factor to take the calculated present value back to time 0. These solutions were also accepted.

See Model Solution in Excel

4. Learning Objectives:

2. The candidate will understand how to calculate rates for each of the contracts described in Learning Objective 1.

3. The candidate will understand how to apply valuation principles for long-duration contracts.

Learning Outcomes:

(2d) Identify critical metrics to evaluate actual vs. expected results.

(2g) Apply actuarial best practices in evaluating and projecting cash flows (premiums, claims, investment income, expenses, commissions), liabilities, and required capital.

(3d) Calculate appropriate claim reserves given data.

Sources:

Insuring Long-Term Care (Chapters 8 and 9)
Individual Health Insurance (Chapter 6)
Group Insurance (Chapter 40)
CP321-104-25: Practices for Preparing Health Contract Reserves
CP321-105-25: Supplemental Comments
ASOP 18

Commentary on Question:

The intent of this question was to test candidates understanding of important considerations for LTC morbidity assumption, assess the reasonableness of assumptions compared to actual results, and both recommend and apply claim termination rates for purposes of setting a claim reserve.

Solution:

(a) List four key considerations under ASOP 18 for setting Long-Term Care (LTC) morbidity assumptions.

Commentary on Question:

Candidate performance on this question was mixed. Common mistakes included listing very few items and/or considerations that are not noted within the ASOP.

Successful candidates were able to recall and list key considerations from ASOP 18 specific to setting morbidity assumptions. For full credit, candidates needed to list at least four considerations and partial credit was given to candidates who listed fewer than four.

4. Continued

Key considerations for setting LTC morbidity assumptions under ASOP 18 are:

- Whether the claim cost elements vary by the type of care provider, such as nursing home, assisted living facility, and home care.
- The effect of induced demand for LTC services due to the presence of LTC benefits.
- The availability of LTC services.
- Interaction and correlation of assumptions, such as mortality on claim termination rates.
- The effect of selection at the time of policyholder decision points.

(b)

(i) Interpret the results of the analysis.

(ii) Recommend updated claim termination rates. Justify your recommendation.

Commentary on Question:
Candidates generally did well on this question. Common mistakes in part (i) included interpretations that simply restated the A/E results without providing commentary on the potential impact or that indicated the aggregate fit was reasonable. Common mistakes on part (ii) included overfitting the proposed assumption to the actual data and not identifying the potential outlier in claim months 19-24 and addressing in the recommendation.

In part (i), successful candidates were able to identify that the pattern of actual-to-expected results varied by claim month band and that even though the aggregate A/E was close to 1.0, the shape of the actual claim termination curve was different than what was expected.

In part (ii), successful candidates recommended updated claim termination rates that had a reasonable pattern (decreasing as claim month increases) and did not over-fit to the actual data, while providing justification for their recommendation. Many also provided commentary regarding credibility considerations and the impact of their recommended changes on estimated reserve sufficiency.

(i) The A/E's for claim months 1-18 are all less than 1.0 while A/E's for claim months 19+ are above 1.0. This implies that the expected claim termination rates could be better adjusted to fit the experience across claim month bands and the actual shape of the claim termination rate curve is different from what is currently expected.

4. Continued

A/E's less than 1.0 mean claims are terminating less than expected and reserves may be understated. The impact varies by claim month, but the overall A/E is less than 1.0, so I recommend reserves should be reviewed for sufficiency.

(ii) I am assuming that the actual results are 75% credible. My recommended rates are 75% actual plus 25% expected, rounded to the nearest 0.1%.

Also, it looks like the month 13-18 and month 19-24 actuals have a strange pattern and one might be an outlier. I am applying an override to the month 19-24 rate to set it equal to the month 13-18 rate so they don't increase by duration. If actual rates continue to be high in the 19-24 month band, that will leave a little bit of potential conservatism in my assumption.

The table below shows my recommended assumption and updated A/Es.

Claim Month	Actual	Assumption (Expected)	A/E
1-3	11.1%	11.4%	97%
4-6	6.8%	6.9%	99%
7-12	3.0%	3.0%	100%
13-18	2.5%	2.6%	96%
19-24	2.8%	2.6%	108%
25-36	2.1%	2.1%	100%
37+	2.2%	2.1%	105%

(c) Calculate the change in the claim reserve based on your recommendation from part (b)(ii). State any assumptions made and show your work.

Commentary on Question:

Candidates generally did well on this question. Common mistakes included not stating any assumptions made or applying the continuance and interest discounting differently than stated within the question (end of month).

Successful candidates utilized the provided information, along with their recommendation from part (b)(ii) to calculate the claim reserve under two assumption bases and show the difference.

See solution provided in Excel.

5. Learning Objectives:

4. The candidate will understand how to prepare and interpret insurance company financial statements for long duration contracts.

Learning Outcomes:

(4a) Compare valuation standards under IFRS 17, US GAAP, and Statutory Accounting.

(4e) Apply applicable best practices.

Sources:

CP321-107-25 Health Insurance Accounting Basics for Actuaries

Commentary on Question:

Candidates familiar with this reading likely did well on this question, as most of the answers came directly from the text. Candidates performed better on parts a) and c) and worse on b) and d).

Solution:

(a) Describe general considerations in classifying insurance contracts as long duration versus short duration under U.S. GAAP.

Commentary on Question:

Candidates generally performed very well on this part.

Short duration: protection is provided for a short period of time, insurer has the right to cancel the contract or adjust the provisions (premiums charged or coverage provided) at the end of any contract period.

Long duration: contract is not subject to unilateral changes in provisions, contract requires the performance of various functions and services over an extended period.

(b) List the three accounting approaches under IFRS 17 and describe their applicability to long duration and short duration health products.

Commentary on Question:

Many candidates identified the three approaches, but did not adequately describe the connection to long versus short duration contracts.

General model or building block approach: general accepted approach for all insurance products, similar to long duration model for US GAAP.

Premium allocation approach: only allowed when contract boundary is less than 12 months away from inception, resembles short duration US GAAP accounting.

5. Continued

Variable fee approach: unlikely to apply to health products.

(c) Identify features of the following health products that would result in an insurance company classifying them as long duration or short duration.

(i) Group disability

(ii) Individual disability

(iii) Medicare Supplement

Commentary on Question:
Candidates did reasonably well on this part, although some did not correctly note that Medicare Supplement could be short or long duration, depending on rating methodology.

Group disability: short-duration, as coverage is usually guaranteed for a shorter period of time and insurers can generally adjust premium rates annually at renewal.

Individual disability: long duration, as coverage is often guaranteed for a long period of time, there is limited ability to adjust premiums, and significant policy reserves are established.

Medicare Supplement: short-duration if attained-age rated, as premiums can be adjusted yearly and pricing does not generally involve pre-funding over years; or long-duration if issue-age rated, as premiums are not adjusted annually with age, and significant policy reserves are established.

(d) Describe the criteria a reinsurance treaty must satisfy under U.S. GAAP to be deemed to transfer risk for:

(i) Long duration insurance contracts

(ii) Short duration insurance contracts

Commentary on Question:
The key point to this part was noting that short duration contracts have two criteria while long duration contracts have only one. Common candidate errors included mixing up the criteria for long versus short and/or not identifying the correct criteria.

5. Continued

Long duration: Reasonable possibility that the reinsurer may realize significant loss from assuming insurance risk.

Short duration: Reasonably possible that the reinsurer may realize a significant loss from the transaction and significant insurance risk under the reinsured portions of the underlying insurance contracts.

6. Learning Objectives:

5. The candidate will understand how to evaluate asset matching and asset adequacy standards for long duration contracts.

Learning Outcomes:

(5a) Understand the principles of Asset-Liability Management (ALM).

(5b) Evaluate techniques for addressing mismatched assets and liabilities.

Sources:

CP321-108-25: ALM for Life, Annuities, and Pensions, Section 5

Commentary on Question:

Candidates demonstrated an understanding of the risks associated with the alignment approaches and were familiar with the calculation of duration and convexity for assets and liabilities. Candidates did not fare as well with the calculation of the duration of equity.

Solution:

(a) Describe the risks and benefits associated with rebalancing the company's asset portfolio versus purchasing derivatives to increase the asset duration for the block.

Commentary on Question:

In order to receive full credit, candidates needed to provide at least two risks and two benefits for each strategy. Candidates did well in describing the risks/disadvantages of the two approaches. Most candidates did not provide sufficient benefits/advantages to score full points.

The table below describes the risks and benefits of the two approaches:

	Benefits	Risks
Rebalancing the company's asset portfolio	• This approach is easier to implement. • Direct asset purchases are simpler to explain to the organization when justifying asset performance. • Asset managers have flexibility in implementation of this approach (for example, classical immunization, creating a barbell portfolio, attempt asset-liability duration matching, target a specific convexity, etc.)	• This approach forces asset managers to go outside of their "sweet spot" and likely give up yield • Longer duration assets may be harder to find and options are more restricted, making it hard to dial in the duration you desire. • There may be tax implications to selling a significant number of assets.
Purchasing derivatives to increase asset for the block	• The derivatives market is highly liquid, so transaction costs are low. • Many derivatives are over the counter and notional amounts and maturities can be dialed up or down easily.	• Derivatives can expose the portfolio to significant interest rate risk, given the up-front costs are limited but there can be significant downsides if changes in the markets are disadvantageous.

	• Asset Managers have flexibility in the types of derivatives purchased (treasury bond futures, interest rate swaps, forward swaps, etc.) • Asset Managers have flexibility to target key rate durations.	• Certain derivatives require trading relationships with specific dealers, creating a barrier to entry. • Certain derivatives are effective at adding duration, but not at adding convexity. • Derivatives are more complicated and may not be as well understood by the organization when explaining portfolio performance.

(b) Calculate the upper and lower bounds that satisfy management's goals for asset duration and convexity. State any assumptions made and show your work.

Commentary on Question:
Candidates did well on this part of the question. Candidates familiar with the appropriate formulas were able to score full points.

See Excel solution.

(c) Calculate the change to the equity for the block. State any assumptions made and show your work.

Commentary on Question:
Candidates had some difficulty with this part of the question. Many tried to subtract the durations to calculate the change in equity, however this method does not account for the magnitude of the assets and liabilities.

See Excel solution.

7. Learning Objectives:

3. The candidate will understand how to apply valuation principles for long-duration contracts.

Learning Outcomes:

(3a) Describe and calculate types of non-claim reserves held for long duration health contracts: policy reserves, unearned premium reserves, and premium deficiency reserves.

(3b) Describe and calculate types of claim reserves held for long duration health contracts: PVANYD (present value of amounts not yet due), ICOS (in course of settlement), and IBNR (incurred but not reported).

(3d) Calculate appropriate claim reserves given data.

Sources:

Insuring Long-Term Care (Chapters 8 and 9)
Individual Health Insurance (Chapter 6)
Group Insurance (Chapter 40)
CP321-104-25: Practices for Preparing Health Contract Reserves
CP321-105-25: Supplemental Comments

Commentary on Question:

The intent of this question was to test candidates understanding of the types and bases of LTC reserves and their ability to calculate LTC claim reserves correctly.

Solution:

(a) Describe the types of Long-Term Care (LTC) reserves under Statutory Accounting Principles (SAP).

Commentary on Question:

Candidates did very well on this question. Common mistakes included listing, rather than describing, the reserve types or providing a very limited number of types.

Successful candidates described at least four types of LTC reserves. Partial credit was granted to candidates that described fewer than four reserves.

Active life reserve (or policy reserve, or contract reserve) – amounts of money set aside to account for current funding of costs over the future lifetime of policies

Disabled life reserve (or claim reserve) – amounts of money set aside to cover future payments for claims which have been incurred under the contract, but have not yet been paid.

7. Continued

Unearned premium reserve – reserve that sets aside the part of premium that has been received for coverage which has not yet occurred as of the valuation date.

Premium deficiency reserve (or gross premium reserve) – additional reserve held to cure a premium or reserve deficiency for a specific block of policies

(b) Compare and contrast LTC reserve methods and assumptions under GAAP and SAP.

Commentary on Question:
Candidates did very well on this question. Common mistakes included providing a limited number of similarities and differences or describing each basis, but with no commentary regarding how they relate to one another.

Successful candidates were able to describe a mix of similarities and differences, with at least six combined. Partial credit was granted if only similarities or only differences were listed, or if the candidate provided fewer than six.

Conservatism
Many actuaries believe that SAP reserves should be greater than the reserve level that would be established using best-estimate assumptions, such that reserves are adequate under moderately adverse conditions. GAAP reserves should be less conservative than SAP and under LDTI reflect best estimate assumptions without a provision for adverse deviation.

Under either SAP or GAAP, if the contract reserves are deficient, additional reserves may be required, as determined by asset adequacy analysis or a gross premium valuation.

Methodology and Assumptions
Certain SAP assumptions like lapse, mortality, and interest have prescribed minimum standards for conservatism, whereas the actuary has greater freedom for assumptions under GAAP.

Assumptions for statutory reserves are generally “locked-in” and not frequently unlocked as experience deteriorates or improves. Assumptions for GAAP reserves are updated frequently, generally at least annually.

SAP minimum requirements for contract reserve is based on a one-year full preliminary term. This is not used under GAAP.

7. Continued

Uses

SAP reserves are calculated at the legal entity level and are intended to ensure solvency. GAAP reserves are calculated at the corporate level and are intended to provide a consistent best-estimate view of overall liabilities.