ASP PRACTICE GUIDE (PG2018-1)

Non-Life Claims Liabilities

In accordance with the IC Circular Letter 2018-18

and ASP Guidance Notes GN2017-1

(April 2018)

Non-Life Insurance Committee

Actuarial Society of the Philippines

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Section 1: Introduction

Purpose

The Actuarial Society of the Philippines (ASP) affirms that the IC Circular Letter 2018-18, Valuation Standards for Non-Life Insurance Policy Reserves, presents a general framework of standards for the valuation of Non-life Insurance Policy Reserves (or statutory reserves) for regulatory reporting to the Insurance Commission.

The ASP also recognizes that regulatory reporting is primarily for establishing and monitoring of the solvency of non-life insurance and professional reinsurance companies. The statutory reserves represent the measure of the company's main liability on direct or assumed in-force policies as at the valuation date. Risk based capital (RBC), which is an allocation of surplus or net worth, shall be layered on top of the statutory reserves for adequate provisions for solvency.

This Practice Guide for Non-Life Claims Reserving is a documentation of the discussion during one of the ASP L&D Team's series of workshop conducted by the Non-life Committee members last 10 November 2017. Practice Guides are not intended to be Guidance Notes, nor Standards of Practice. It is a list of what are considered as best practices performed by different subject matter experts for a specific practice area.

The purposes, therefore, of this Practice Guide is to present some guidance on certain practical considerations inherent in computing for non-life claims liabilities. It aims to equip non-life practitioners with a practical guide in analyzing data to provide meaningful insights in terms of setting appropriate non-life claims liabilities.

The "Actuary" whenever used in this Note refers to a Non-Life Actuary, accredited by the Insurance Commission.

Scope

This Practice Guide covers only the Claims Liabilities part of the Insurance Policy Reserves. It will present very briefly some basic concepts and definitions before discussing some practice considerations in developing non-life claims liabilities.

Section 2: Definition of Basic Concepts

Non-life Insurance Policy Reserves

There are two (2) components of a non-life insurance policy reserves, namely, the claims liability and the premium liability.

Claims liability refers to claims and claims handling expenses incurred but not yet paid from risks that are written and earned as of the valuation date. This is reserving for something that has happened.

Premium liability refers to future claims and expenses that are expected to occur from the risks that have been written but not yet expired (hence, unearned) as of valuation date. This is reserving for something that has not yet happened for policies that are in-force as of valuation date.

Ultimate Claims

Ultimate claims as of the valuation date consist of paid claims, case reserves and incurred but not reported claims (IBNR). Case reserves are claims that are incurred, reported, but unpaid.

In conducting the actuarial valuation, we project the amount of ultimate claims, making the IBNR more of a balancing item.

Claims Liabilities Components

Removing the paid claims from the equation of ultimate claims would result to just the case reserves and IBNR.

The claims handling expense (CHE) is the expense attributable to processing and settling claims.

IC Circular 2018-18 requires that CHE will be added to the remaining unpaid claims, that is, case reserves and IBNR, to arrive at the best estimate of the claims liability.

To achieve the 75^{th} percentile confidence level requirement of the said Circular, a margin for adverse deviation (MfAD) will need to be added to the best estimate of the claims liability.

Section 3: Practical Considerations for Non-Life Claims Liabilities

Sample Case A: Inadequate Data

Claims for some lines of business, like Aviation, hardly occur, thereby making the claims triangle sparse and the historical data inadequate for use in the reserve calculation. In Table 1, there are no claims that have been reported since Accident Year (AY) 2011 for a sample Aviation line of business. This does not, however, mean that reserves are not set up for this class.

Table 1

Aviation Cumulative Claims Incurred

Accident Year	Development Year							Earned Premium	Loss Ratio (LR)	
	1	2	3	4	5	6	7		Projected	Selected
2010	0	0	0	0	0	0	0	12,760	0%	**0%**
2011	6,316	14,293	15,544	15,723	15,723	15,723		11,867	132%	**132%**
2012	0	0	0	0	0			11,683	0%	**0%**
2013	0	0	0	0				12,757	0%	**0%**
2014	0	0	0					13,676	0%	**0%**
2015	0	0						13,409	0%	**0%**
2016	0							16,423	0%	**22%**

Due to the inadequacy of historical data, the loss development factors become unreliable in determining the ultimate loss. From Table 1, it can be noted that only AY 2011 contains claims information. It can also be deduced that claims exceeded premiums for this accident year.

For cases like this, the Actuary cannot rely solely on the AY 2011 experience, nor can he/she consider that no claims may occur given such experience in recent historical years. In practice, the Actuary can derive the ultimate loss ratio for AY 2016 by averaging the loss ratios of AY 2010 to AY 2015. It may also be good to assess the derived figure and see how this compares with industry data, or other companies with similar size and portfolio.

Sample Case B: Large Losses

When looking into the claims triangles, both paid and outstanding, the Actuary might sometimes notice significant increase in claims from the previous development year. If the transactional data is available, the Actuary can easily check where the sudden increase is coming from. However, if only the triangulated data is available, he/she may consider consulting with either claims or accounting department.

In Table 2, significant increase in incurred claims can be observed in the second development year of AY 2015 for a sample Fire line of business. Additional information provided by the claims department

revealed that there is a one-off outstanding claim amounting to PHP 450 million. Since claims reported are rarely this big, this claim is considered as a large loss. For consistency, the insurer and their Actuary may want to set a threshold amount to be considered as large loss for each line of business based on latest given data.

Table 2

Fire Cumulative Claims Incurred

Accident Year	Development Year							Earned Premium	Loss Ratio (LR)	
	1	2	3	4	5	6	7		Projected	Selected
2010	320,300	316,000	197,940	188,600	180,750	180,750	180,750	272,400	66%	**66%**
2011	321,000	317,050	216,700	218,800	219,200	218,800		270,600	81%	**81%**
2012	316,500	319,830	216,975	197,975	197,975			308,400	64%	**64%**
2013	287,000	291,705	218,460	218,460				315,800	69%	**69%**
2014	345,600	321,500	214,610					327,900	65%	**65%**
2015	359,600	801,550						378,252	144%	**182%**
2016	287,100							380,300	62%	**68%**

Since large losses are generally not normal occurrences, they distort the claims development and claims experience, thereby making the loss development factors and loss ratios unreliable. Moreover, the occurrence of a large loss prompts the Actuary to revise the selected ultimate loss ratios, especially for the more recent accident years where claims movement can still be expected.

In practice, the Actuary can revise the selected ultimate loss ratio for AY 2015 by:

1) excluding the large loss from the claims triangle,

2) computing for the actual loss ratio of the remaining claims,

3) computing for the loss ratio of the large losses, and

4) adding the loss ratio of the large losses back to the actual loss ratio.

Further, since the large loss in AY 2015 is a one-off, the Actuary can typically assume that AY 2016 will have a different experience from the most precedent year, AY 2015. Hence, the Actuary can derive the ultimate loss ratio for AY 2016 by averaging the loss ratios of AY 2010 to AY 2014 and the actual loss ratio of the remaining claims for AY 2015.

Sample Case C: Increase/Decrease in Premiums

Another component of the reserve valuation that the Actuary should monitor is the significant movement in premiums. When sudden increase or decrease was observed, as opposed to the historical premiums, the Actuary may consider looking into the cause of the movement.

Increase in premiums can be due to expanding the business, considering more risks, making the pricing to be more competitive, introducing new and innovative products, and so on. Expanding the business can mean growing the target market to wider scope or territories, like expanding the business to the provincial and rural areas. Considering more risks can mean including Marine Hull risks under Marine Cargo as an

example. Repricing a product to match the industry and introducing new competitive products can directly mean more policyholders, thereby resulting to an increase in premiums.

On the other hand, decrease in premiums can be due to a loss of a certain dealership for the Motor line for instance, termination of a particular product, and so on.

In Table 3, the decrease in earned premiums can be observed starting AY 2013 for a sample Motor line of business. The claims department provided information that there is a loss of dealership amounting to 10% of the Motor line's premiums. Generally, the loss ratios have been relatively stable for the historical years.

Table 3

Motor Cumulative Claims Incurred

Accident Year	Development Year							Earned Premium	Loss Ratio (LR)	
	1	2	3	4	5	6	7		Projected	Selected
2010	190,600	229,500	224,400	223,400	223,400	223,400	223,400	454,000	49%	**49%**
2011	173,000	192,800	198,100	198,680	198,570	198,500		451,000	44%	**44%**
2012	218,900	241,000	237,700	236,700	237,400			514,000	46%	**46%**
2013	185,800	243,300	239,720	238,650				582,400	41%	**41%**
2014	220,900	236,200	235,600					546,500	43%	**43%**
2015	213,200	233,700						525,350	44%	**44%**
2016	160,700							526,500	35%	**45%**

Looking into the earned premiums, it can be observed that after the minimal decrease from AY 2010, it has steadily grown until AY 2013. However, following AY 2013, the premiums started to decrease again, only to experience a minimal increase in AY 2016. It can thus be noted that the earned premium movements have been volatile over the historical years. Further investigation on the cause of the volatile trend revealed that this was due to the loss of dealership noted above.

Further, we can see from Table 3 that the incurred claims for the first development year in AY 2016 is relatively low compared to the historical first development year claims. Therefore, given that there is already volatile movements in the earned premium, the low incurred claims further causes the loss ratio for AY 2016 to be lower. For cases like this, the Actuary may typically consider the experience of the historical years. The ultimate loss ratio for AY 2016 can then be derived by averaging the loss ratio of AY 2010 to AY 2015.

Sample Case D: New Business/Product

As mentioned above, introducing new and innovative products can cause increase in premiums. Furthermore, since these are new products, then they will have a different claims experience. The claims experience of the historical years might not be appropriate therefore for accident years with claims attributable to the new product. In Table 4, it can be noted that claims incurred and earned premiums almost doubled in AY 2015 for a sample Casualty line of business.

Table 4

Casualty Cumulative Claims Incurred

Accident Year	Development Year 1	2	3	4	5	6	7	Earned Premium	Loss Ratio (LR) Projected	Selected
2010	21,700	24,200	23,560	23,400	23,400	23,400	23,400	50,200	47%	**47%**
2011	23,600	26,100	24,560	24,560	24,500	24,500		53,500	46%	**46%**
2012	33,900	35,000	34,283	34,033	34,063			72,300	47%	**47%**
2013	41,280	44,300	35,800	35,625				86,400	41%	**41%**
2014	45,200	46,600	39,100					91,600	43%	**43%**
2015	106,900	119,400						163,600	66%	**66%**
2016	131,000							190,200	68%	**68%**

Consulting with the claims department, it was revealed that the significant increase in claims and premiums were due to a new property floater product that was introduced in AY 2015. Table 5 details the current experience of the new product.

Table 5

Incremental Claims Paid in Actuarial Configuration

Accident Year	Financial Year 2015	2016
2015	39,300	13,900
2016		36,600

Claims Outstanding in Actuarial Configuration

Accident Year	Financial Year 2015	2016
2015	19,800	18,200
2016		39,100

Net Earned Premium

Accident Year	Earned Premium
2015	72,100
2016	84,450

In this particular case, the loss development factors and historical loss ratios may not be reliable. Typically, it may be best to exclude the new business and perform two separate reserve valuations. This will enable the Actuary to see the actual development of the existing products and the new product, and calculate ultimate loss independently. Table 6 illustrates the sample Casualty line of business including only the existing products, while Table 7 illustrates the sample Casualty line of business including only the new product.

Table 6

Casualty (Existing) Cumulative Claims Incurred

Accident Year	Development Year 1	2	3	4	5	6	7	Earned Premium	Loss Ratio (LR) Projected	Selected
2010	21,700	24,200	23,560	23,400	23,400	23,400	23,400	50,200	47%	**47%**
2011	23,600	26,100	24,560	24,560	24,500	24,500		53,500	46%	**46%**
2012	33,900	35,000	34,283	34,033	34,063			72,300	47%	**47%**
2013	41,280	44,300	35,800	35,625				86,400	41%	**41%**
2014	45,200	46,600	39,100					91,600	43%	**43%**
2015	47,800	48,000						91,500	48%	**48%**
2016	55,300							105,750	50%	**50%**

Table 7

Casualty (New) Cumulative Claims Incurred

Accident Year	Development Year 1	2	3	4	5	6	7	Earned Premium	Loss Ratio (LR) Projected	Selected
2010										
2011										
2012										
2013										
2014										
2015	59,100	71,400						72,100	99%	**99%**
2016	75,700							84,450	108%	**108%**

The ultimate loss for Casualty will therefore be the sum of the ultimate loss calculated for the existing products and the ultimate loss calculated for the new product.

Moreover, this can also be applicable when, say, the company is expanding the Marine Cargo business to include Marine Hull risks. Since Marine Hull risks will pose new claims experiences, combining both claims and performing one reserve valuation might yield inaccurate ultimate loss. However, performing individual reserve valuation will enable the Actuary to analyze the actual development of Marine Cargo and Marine Hull separately and calculate a more accurate ultimate loss.

Attachments

Non-Life Claims Liabilities Presentation

To access the Non-Life Claims Liabilities slides presented last 10 November, double click the link below.

Non-Life Claims Liabilities.pptx

Workshop Answer Key

To access the answer key of the Workshop presented last 10 November, double click the link below.

Workshop Answer Key.xlsx