CAS Antitrust Notice

- The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.

- Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.

- It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.

2022 Schedule P Reserve Analysis

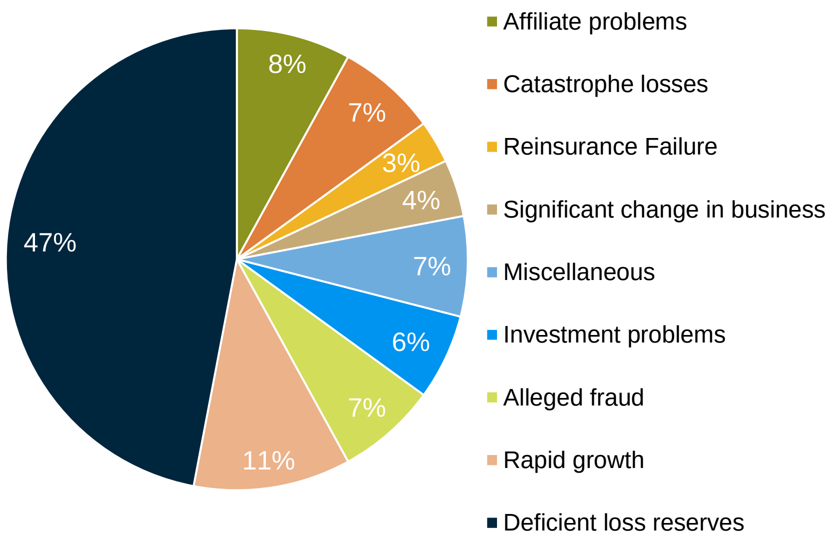
Adam Carvalho | May 8th, 2023

Gallagher Re

Casualty Market: Threat Assessment

Putting long-tail classes into context on the risk hierarchy

Cause of Financial Impairment



P&C IMPAIRMENTS

47%

47% of P&C financial impairments are caused by deficiency in loss reserves from casualty

RISK MANAGEMENT

Industry and regulatory focus overwhelmingly tilted towards property cat given liquidity threat

CASUALTY THREATS

Where capital models mimic solvency models, 12-month time-horizon understates casualty threats

*"…remember, **casualty kills insurance companies** not short-tail property."*

— Evan Greenberg, Chairman and CEO, Chubb Ltd. (2)

[1]Source: US P&C Admitted Primary Cause of Financial Impairment / Best's Special Report, Segment Review, September 15,2014
2Answer to an analyst's Q1 2019 Earnings Call on 1st May 2019

Executive Summary

- Background
- Impact of Covid-19
- Industry Reserve Positions by Line of business
- Threats to reserves going forward

Methodology for Assessing Industry Reserves

Gallager Re

S&P Global
Market Intelligence

Use Standard Reserving Template to pull SNL data for 5 key lines of business:

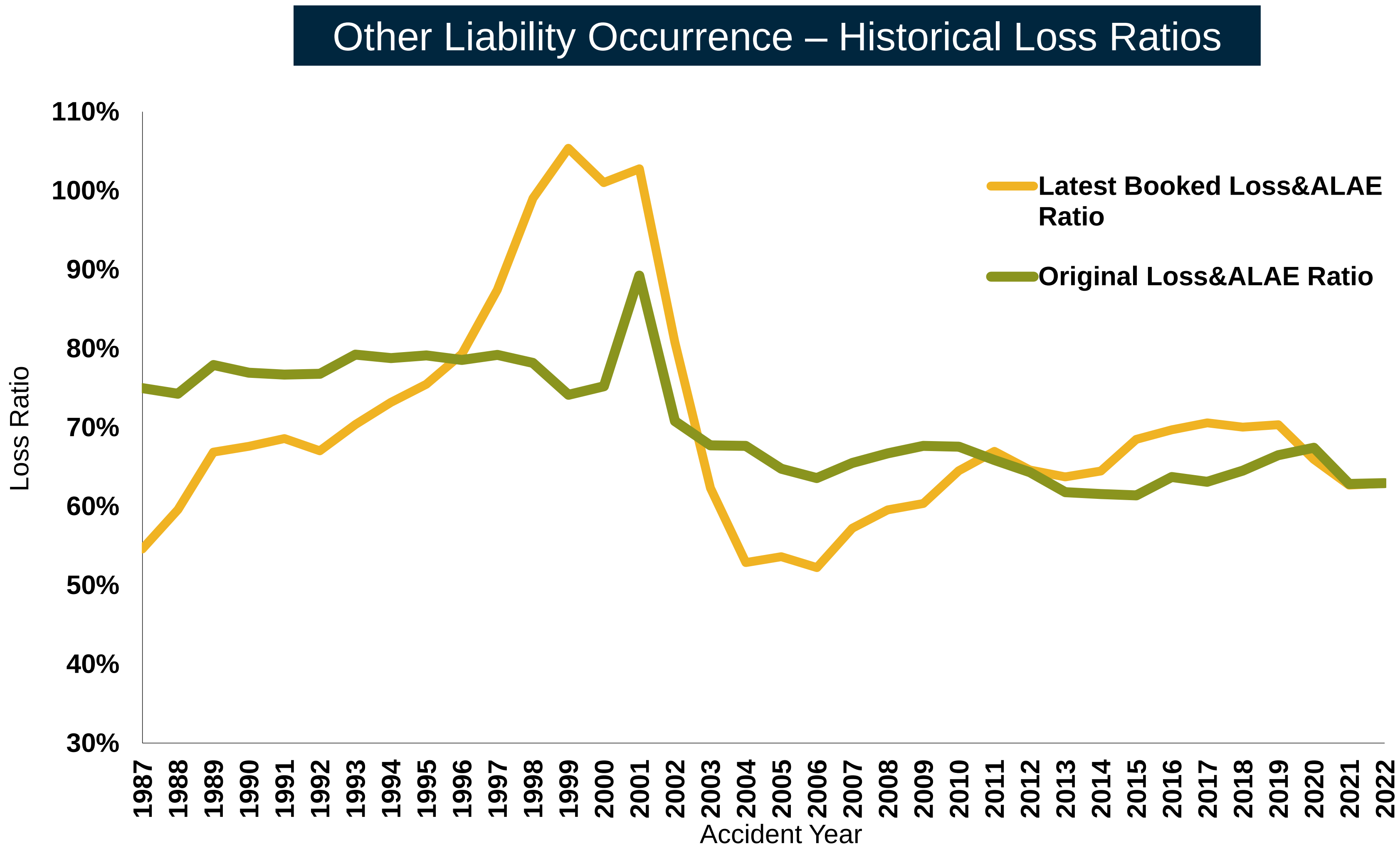
- Commercial Auto Liability
- Medical Professional Liability – Claims Made
- Other Liability – Claims Made
- Other Liability – Occurrence
- Workers' Compensation

Gallagher Re

Adjustments Made to the data:

- Analyze some large companies separately since they skew industry data (AIG & Berkshire)
- Analyze triangles to detect any lag in development due to Covid
- More closely look at outlier years and underlying trends

Why look at industry reserves?



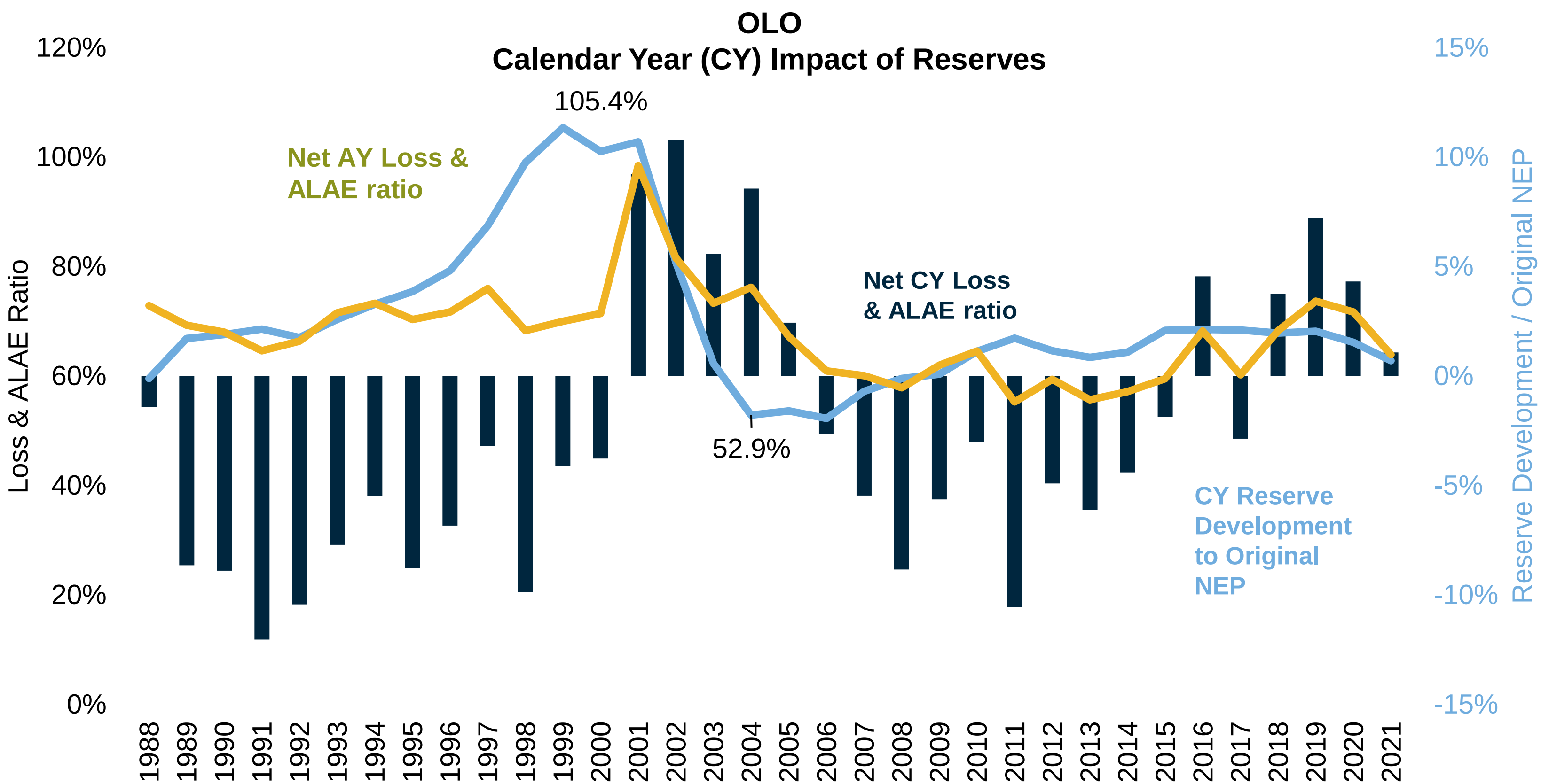
Initial booked loss ratios are never correct, missed loss ratios impact the pricing cycle

Gallagher Re

Long Tail Cycle Dynamics

Risk clustering (multi-year amplification) is a threat

- Reserving issues impact additional underwriting years reserved using the same methodology and creates clusters of accident year reserve movements that are amplified on financial year
- Good cycle management can reverse the impact so that excess reserves built during periods of peak profit help **reduce volatility** through soft market



Source: S&P Cap IQ Pro, Gallagher Re

Additional considerations when estimating industry reserves

What is the impact on the line due to Covid -19?

Has the line had any significant rate changes?

Has the line been affected by any systemic increases in losses?

Evidence of Covid-19 Lag

Other Liability Occurrence

Paid

Paid Loss Development Factors

Accident Year	12 - 24 Months	24 - 36 Months	36 - 48 Months	48 - 60 Months	60 - 72 Months	72 - 84 Months	84 - 96 Months	96 - 108 Months	108 - 120 Months
2009	2.0426	1.5575	1.3514	1.2072	1.1165	1.0696	1.0601	1.0391	1.0278
2010	2.3770	1.7263	1.3663	1.2295	1.1116	1.0856	1.0689	1.0340	1.0188
2011	2.5132	1.6935	1.4033	1.2509	1.1467	1.0867	1.0571	1.0319	**1.0219**
2012	2.5445	1.7113	1.4246	1.2293	1.1852	1.0781	1.0568	**1.0234**	**1.0179**
2013	3.0979	1.8533	1.4241	1.2939	1.1320	1.0789	**1.0422**	**1.0205**	1.0240
2014	2.5253	1.7329	1.5006	1.2341	1.1302	**1.0658**	**1.0340**	1.0336	
2015	2.7396	1.8301	1.4549	1.2472	**1.1134**	**1.0584**	1.0464		
2016	2.7448	1.7680	1.4529	**1.2067**	**1.1132**	1.1110			
2017	2.8442	1.7208	**1.4193**	**1.2171**	1.1814				
2018	2.8592	**1.6482**	**1.3565**	1.2880					
2019	**2.4596**	**1.6064**	1.4920						
2020	**2.3477**	1.7203							
2021	2.8981								

Reported

Reported Loss Development Factors

Accident Year	12 - 24 Months	24 - 36 Months	36 - 48 Months	48 - 60 Months	60 - 72 Months	72 - 84 Months	84 - 96 Months	96 - 108 Months	108 - 120 Months
2009	1.7153	1.2967	1.2024	1.1057	1.0596	1.0340	1.0332	1.0286	1.0140
2010	1.7691	1.3850	1.1876	1.1082	1.0546	1.0537	1.0364	1.0201	1.0020
2011	1.8138	1.3710	1.2152	1.1134	1.0733	1.0526	1.0318	1.0093	**1.0123**
2012	1.8287	1.3961	1.2345	1.0922	1.1075	1.0399	1.0179	**1.0109**	**1.0134**
2013	1.9020	1.4384	1.2155	1.1592	1.0733	1.0423	**1.0134**	**1.0092**	1.0189
2014	1.8663	1.3875	1.2617	1.1266	1.0670	**1.0278**	**1.0205**	1.0220	
2015	1.9016	1.4692	1.2527	1.1308	**1.0508**	**1.0340**	1.0322		
2016	1.9170	1.4133	1.2556	**1.1100**	**1.0655**	1.0661			
2017	2.0862	1.4383	**1.1874**	**1.1299**	1.1097				
2018	1.9423	**1.3833**	**1.2217**	1.1736					
2019	**1.8564**	**1.3779**	1.2826						
2020	**1.8519**	1.4409							
2021	2.1022								

2020 and 2021 had favorable development, with a catch up in 2022 diagonal

Methodology for estimating slowdown due to Covid-19

Older Years

Compare the cumulative loss development from Calendar years 2020 - 2022 to historical averages

Age to Age Factor

	12 - 24	24 - 36	36 - 48	Total Development	Lag
5 year xLast	1.07	1.04	1.02	**1.138**	
2016	1.05	1.03	1.03	**1.121**	-1.47%

Since the cumulative value of 2016 development is greater than historical averages we can conclude that that year is showing lag

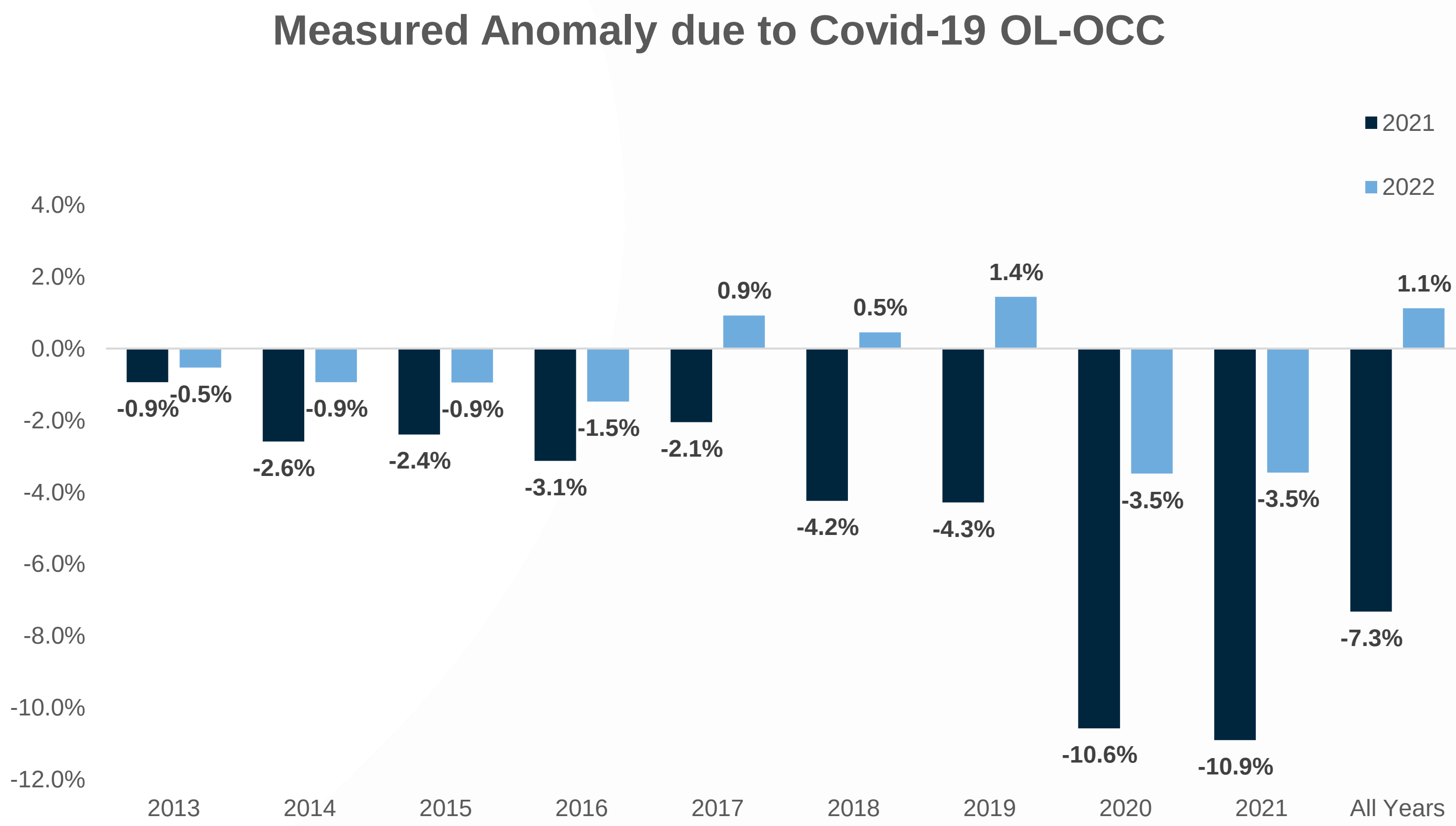
2020 and 2021

We need to compare on-leveled Incurred Loss ratios since there is not sufficient loss development history to compare

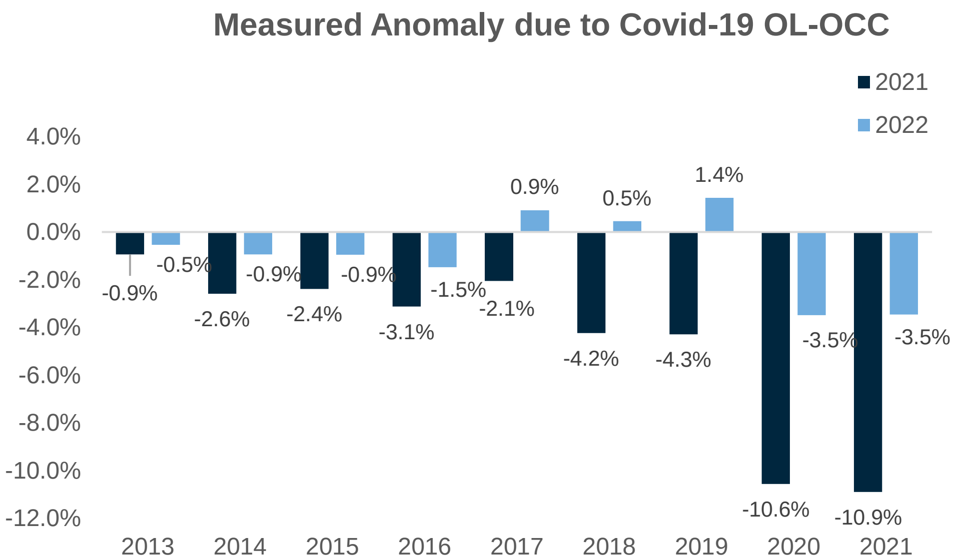
Avg. 24 Month Onlevel Loss ratio	2021 Onlevel Loss Ratio	Measured lag
23.5%	**22.7%**	**-3.5%**

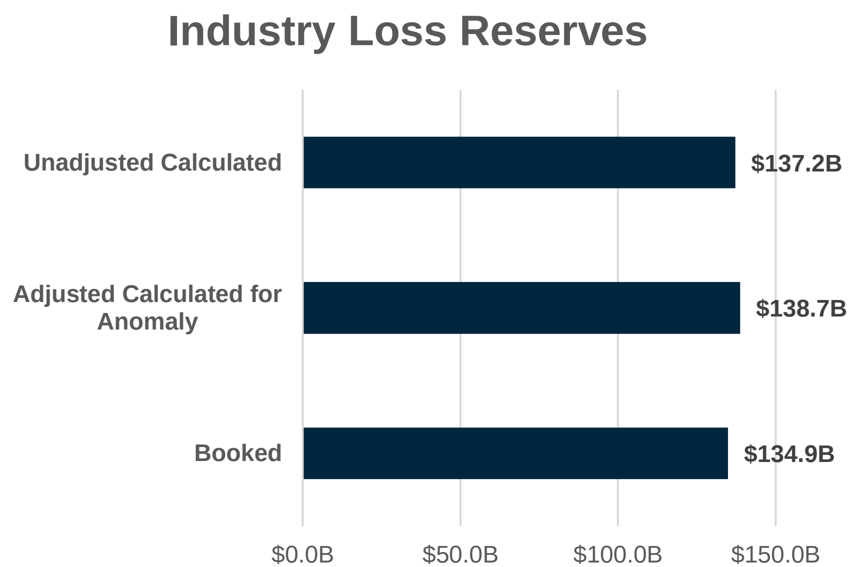
2021's Onlevel loss ratio is 3.5% below the 5 year historical on-leveled loss ratio

How has the lag in reported loss changed?



Other Liability Occurrence

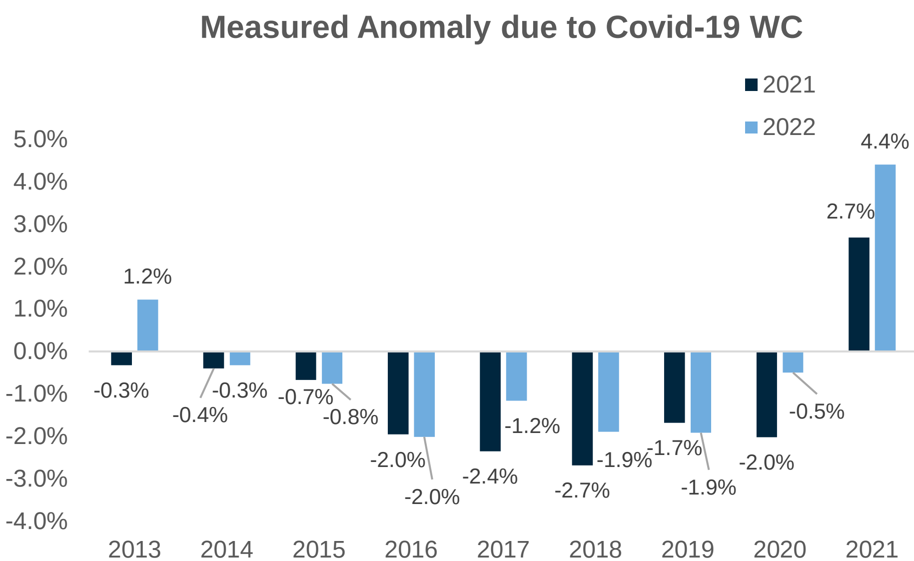


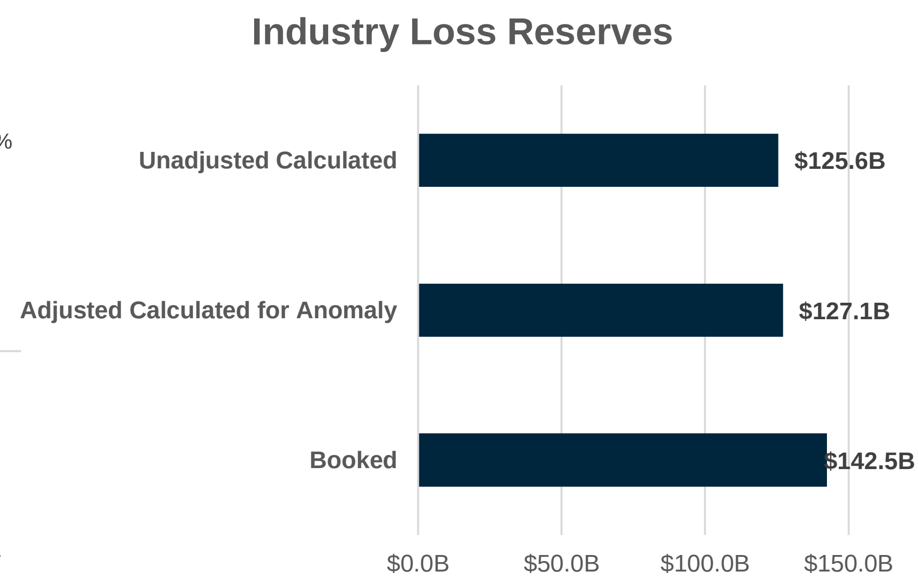


Court closures slowed the reporting of losses in 2020 and 2021. The decrease in reported losses reversed course over the past year, with all years speeding up from our 2021 indication.

Our indications were adjusted up by 1.5B to compensate for covid lag, resulting in an estimated industry reserve deficiency of 3.8B.

Workers' Compensation

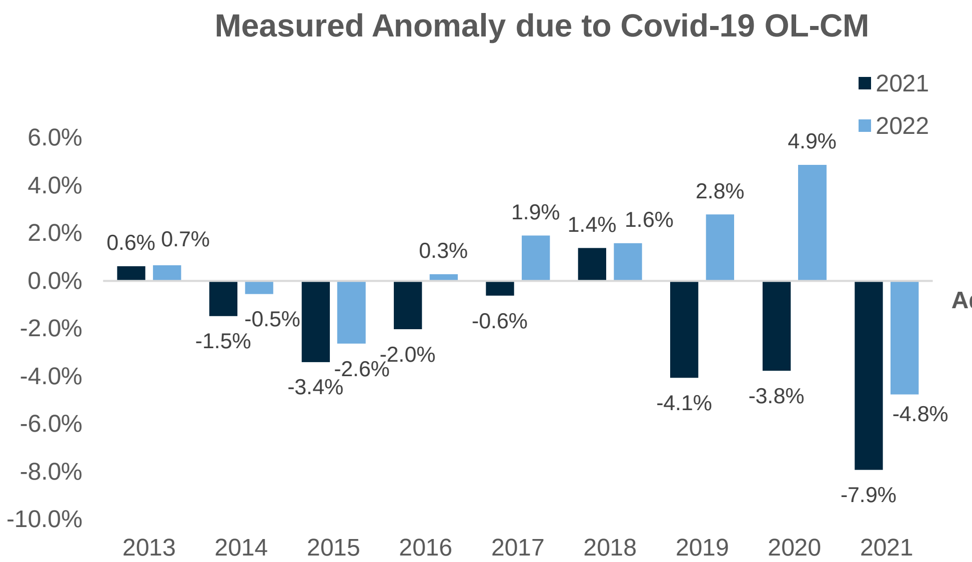


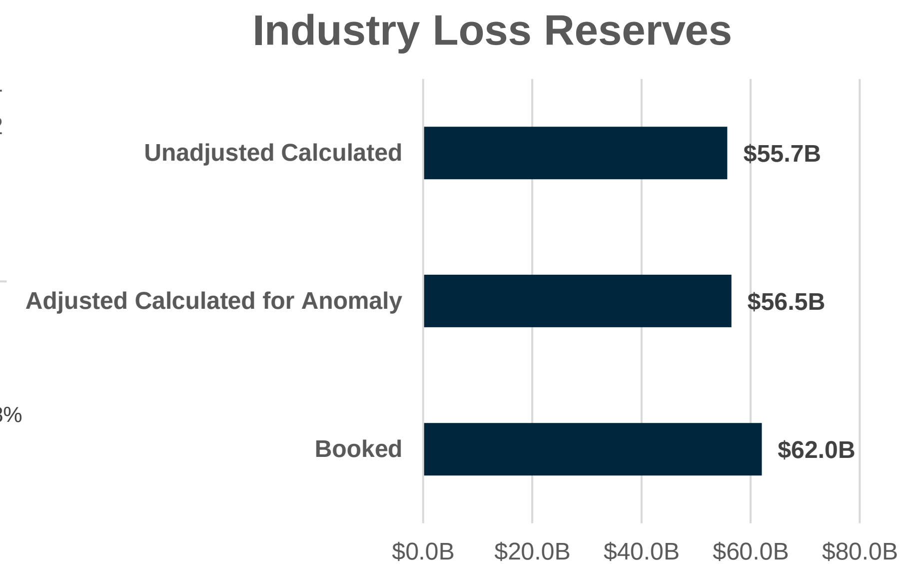


The lag has slowed for Workers' Comp. We also recognize that this could also be favorable development on this line of business.

The difference between Industry Booked Reserves and Adjusted Calculated for Anomaly is $16B showing a strong reserve position that the industry has

Other Liability - Claims Made

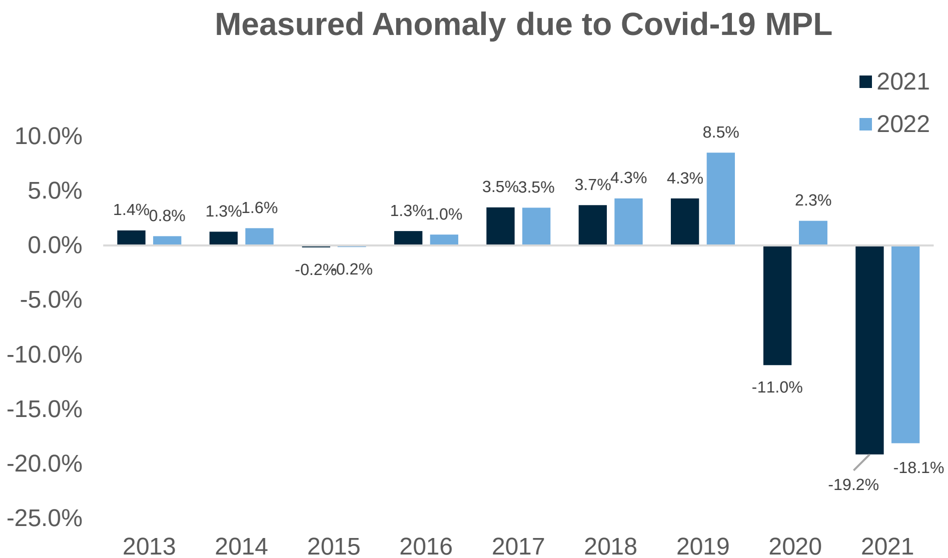


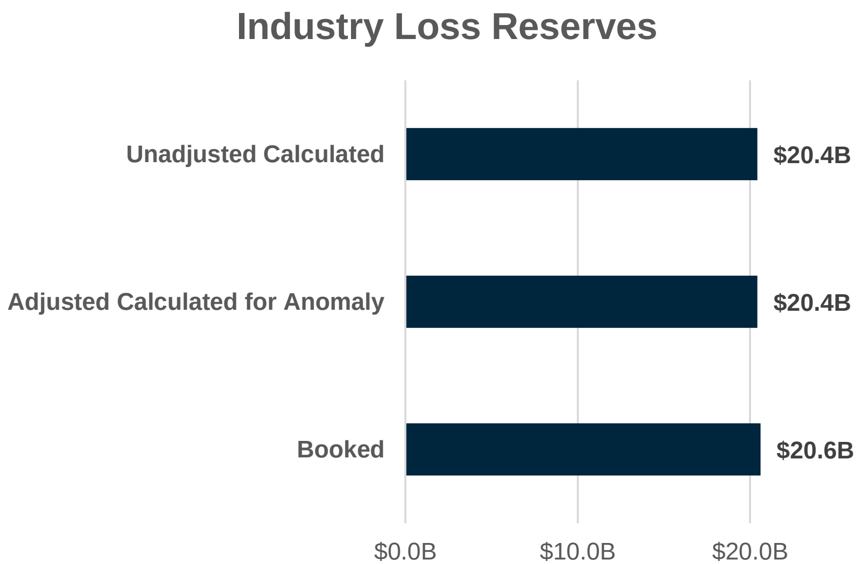


There has been a catch up on all years from the slowdown witnessed in 2021.

The Industry Booked reserves are redundant by 5.5B , mainly driven by the latest few years, which have experienced significantly high rate changes

Medical Professional Claims Made



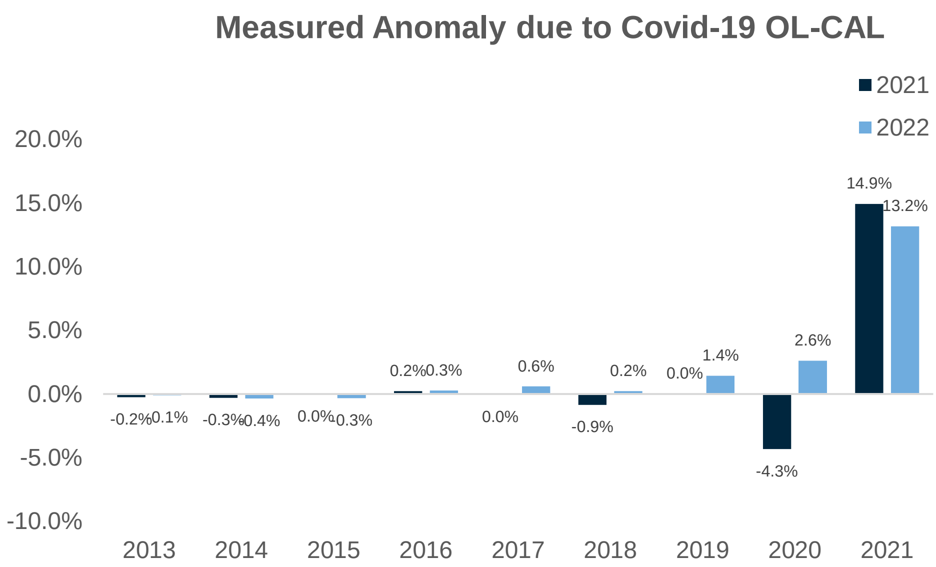


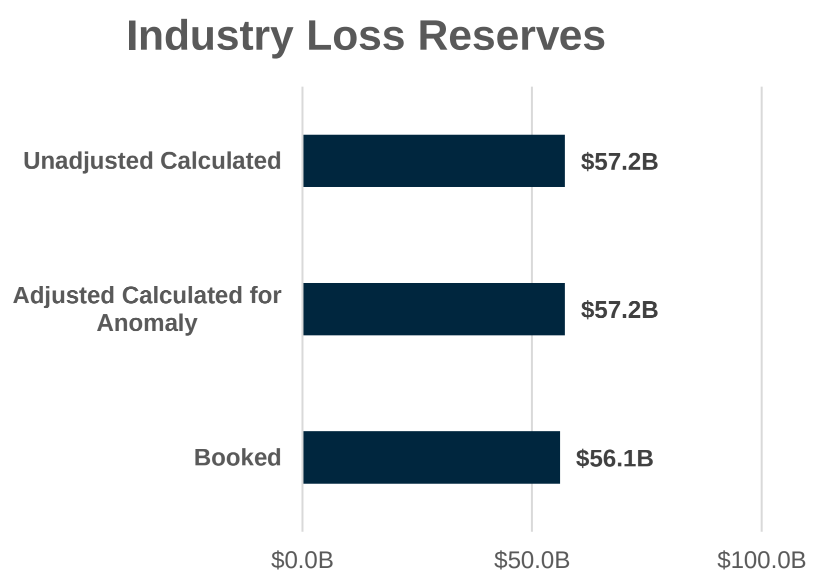
No slowdown indicated for 2020 and prior. 2021 still shows slowdown however it is developing like 2022.

The Industry Booked Reserves are in line with our calculated reserves. We removed Berkshire Hathaway from the data set as it showed a $1.8B redundancy.

Analysis of reserves excludes Berkshire Hathaway which had a $1.8B redundancy

Commercial Auto Liability

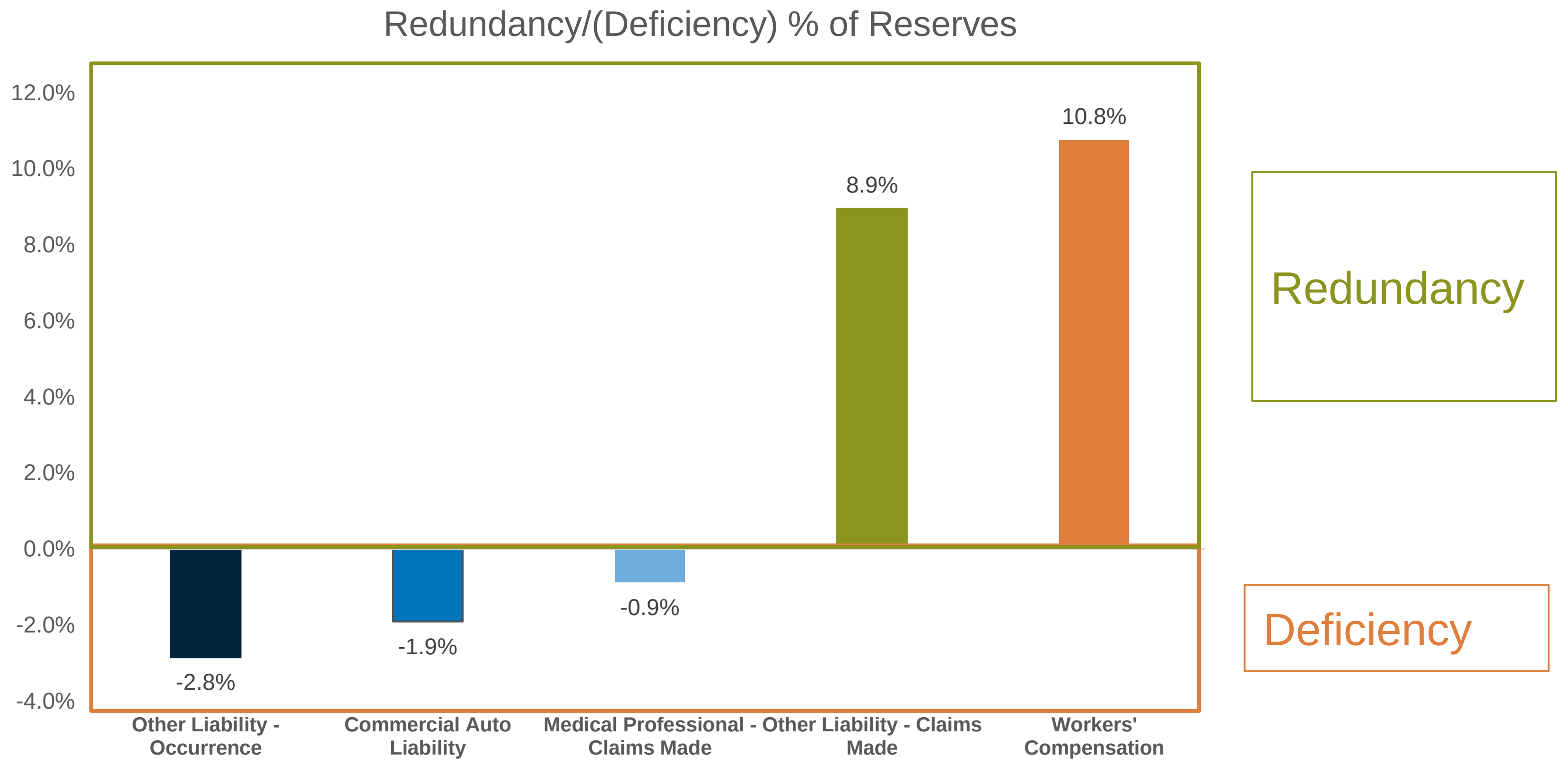




No slowdown indicated in Commercial Auto. This line is battling elevated vehicle, parts and labor costs.

The Industry Booked Reserves are slightly lower than the Calculated Adjusted amount, indicating a $1B deficiency

Summary of Industry Reserve Positions



Potential Threats as a result of Covid-19 (Med Mal Example)

- Claim backlog, open ratio is well above historical averages for accident years 2019 and Prior

Open Ratio (Open Claims/ Reported Claims)

	12	24	36	48	60	72	84	96	108	120
2013	56%	31%	18%	10%	6%	5%	3%	2%	2%	2%
2014	60%	33%	17%	11%	7%	4%	3%	3%	2%	
2015	62%	33%	21%	14%	9%	6%	5%	3%		
2016	61%	41%	24%	15%	10%	8%	6%			
2017	65%	40%	23%	16%	11%	8%				
2018	64%	36%	25%	18%	12%					
2019	61%	39%	28%	20%						
2020	59%	41%	31%							
2021	61%	39%								
2022	62%									

- Incurred claim Severity is in line with historical expectations, however if inflation starts to affect medical inflation adversely this could cause loss emergence in these older years.

Reported Claim Severity (Reported Loss/ Reported Claims)

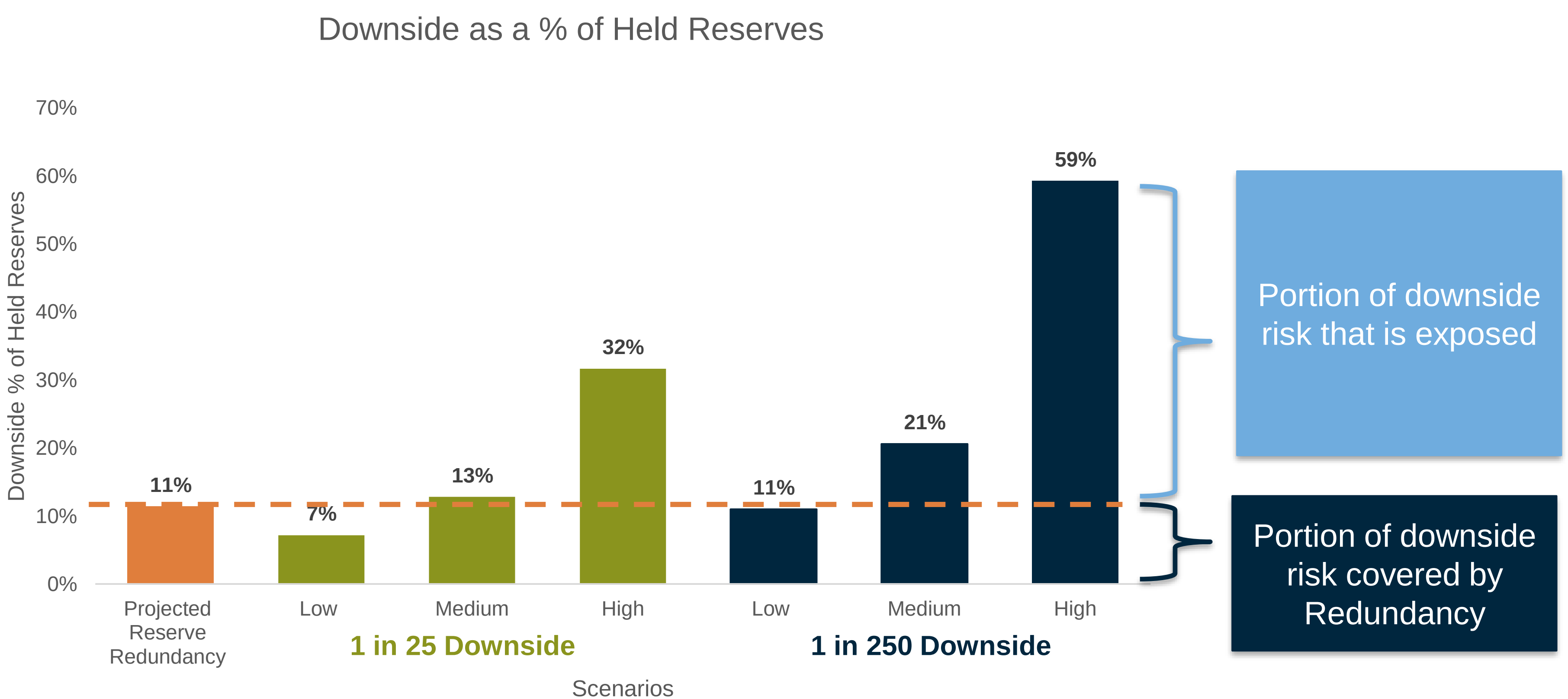
	12	24	36	48	60	72	84	96	108	120
2013	22,750	36,169	39,440	37,517	37,004	39,948	40,263	40,471	41,155	38,734
2014	23,889	36,191	41,219	39,412	42,834	42,850	42,405	43,345	39,886	
2015	22,379	36,451	43,150	42,943	43,103	43,376	43,791	40,839		
2016	22,713	36,721	42,757	41,568	42,383	43,990	40,542			
2017	21,756	34,109	39,955	38,460	40,783	37,972				
2018	19,706	34,908	41,208	42,485	42,665					
2019	21,628	34,203	39,015	39,613						
2020	20,743	29,788	36,902							
2021	18,822	30,856								
2022	18,379									

Inflation Risk Models

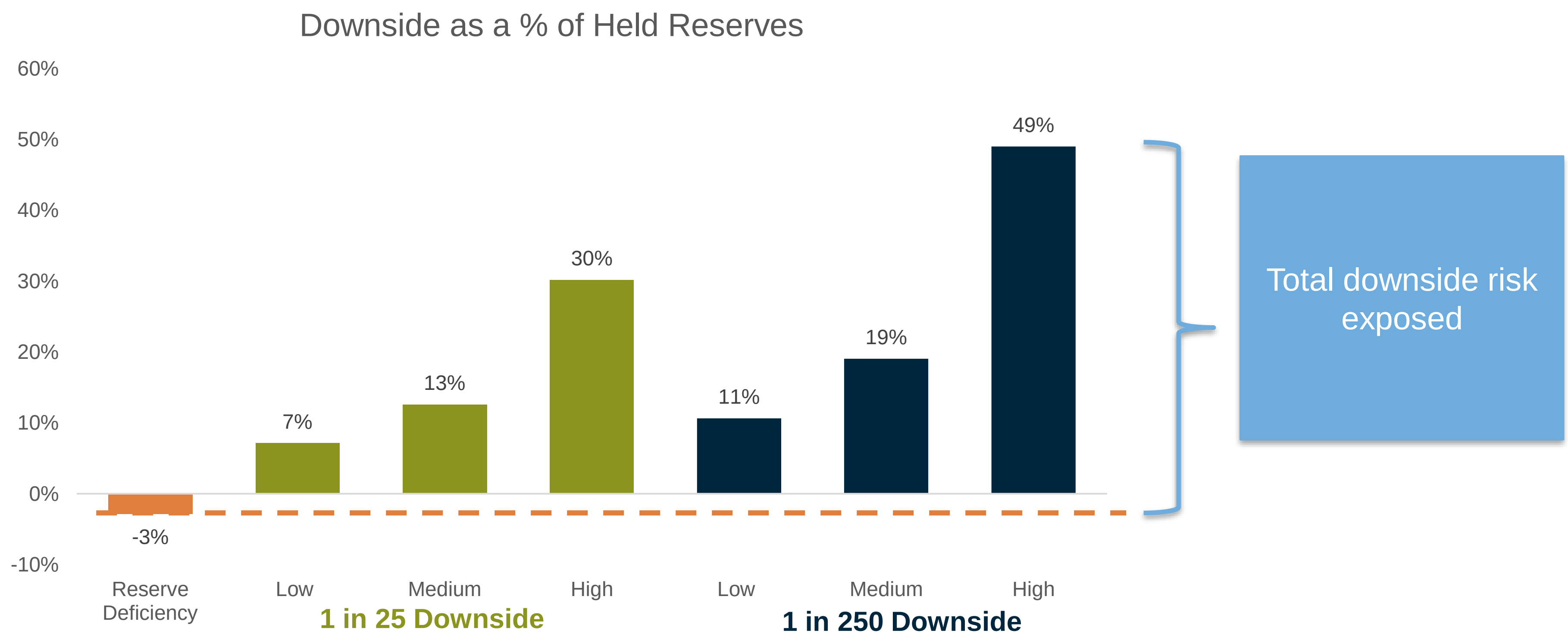
- Using Gallagher Re's proprietary inflation models we have measured the downside due to inflation using a mean inflation parameter of 4% with volatility based on the scenarios below:

Name of Model	Historical Period Basis	Range of Observed Inflation Rates
Low Variability Model Developed by Gallagher Re	1985 - Present	0% - 8.0%
Medium Variability Model Developed by Gallagher Re	1955 - Present	0% - 13.9%
High Variability Model Developed by Gallagher Re	1915 - Present	-11.0% - 19.5%

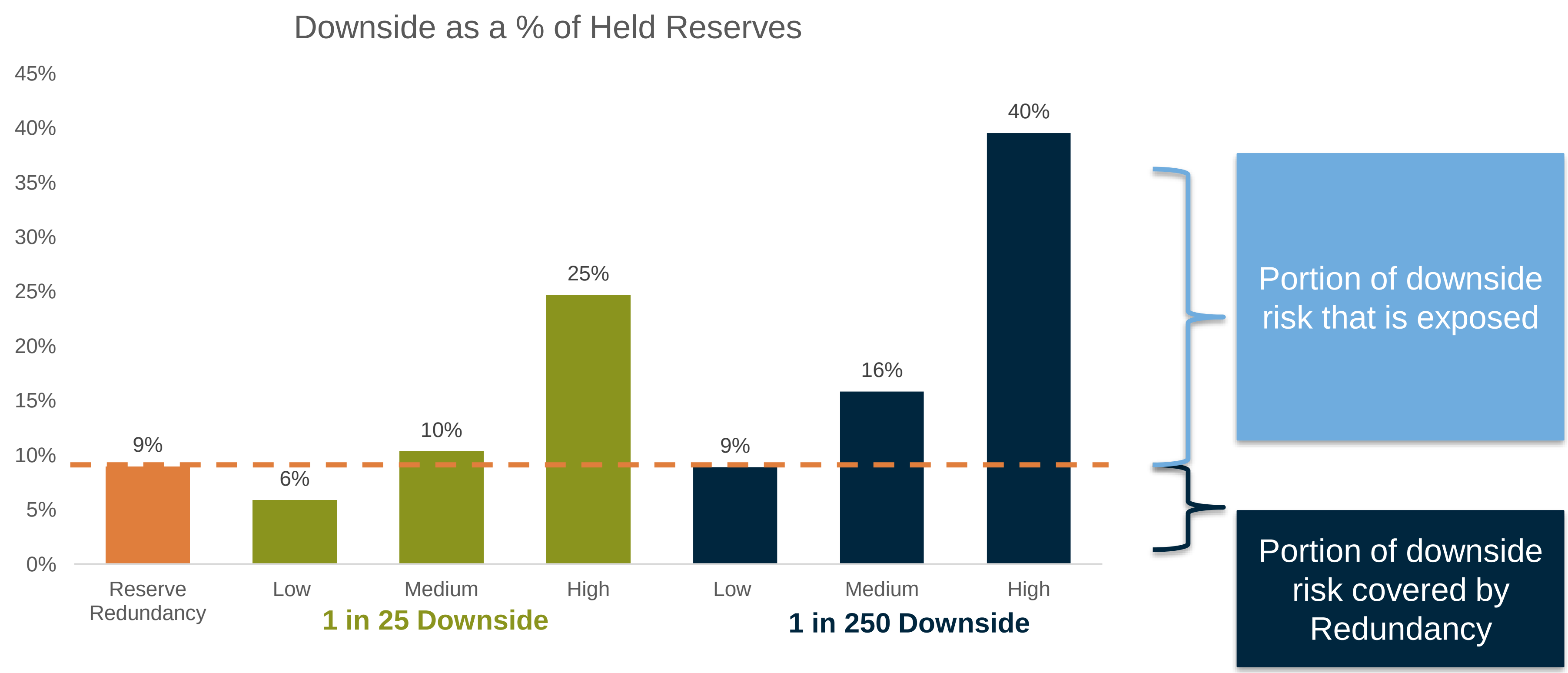
Workers Compensation



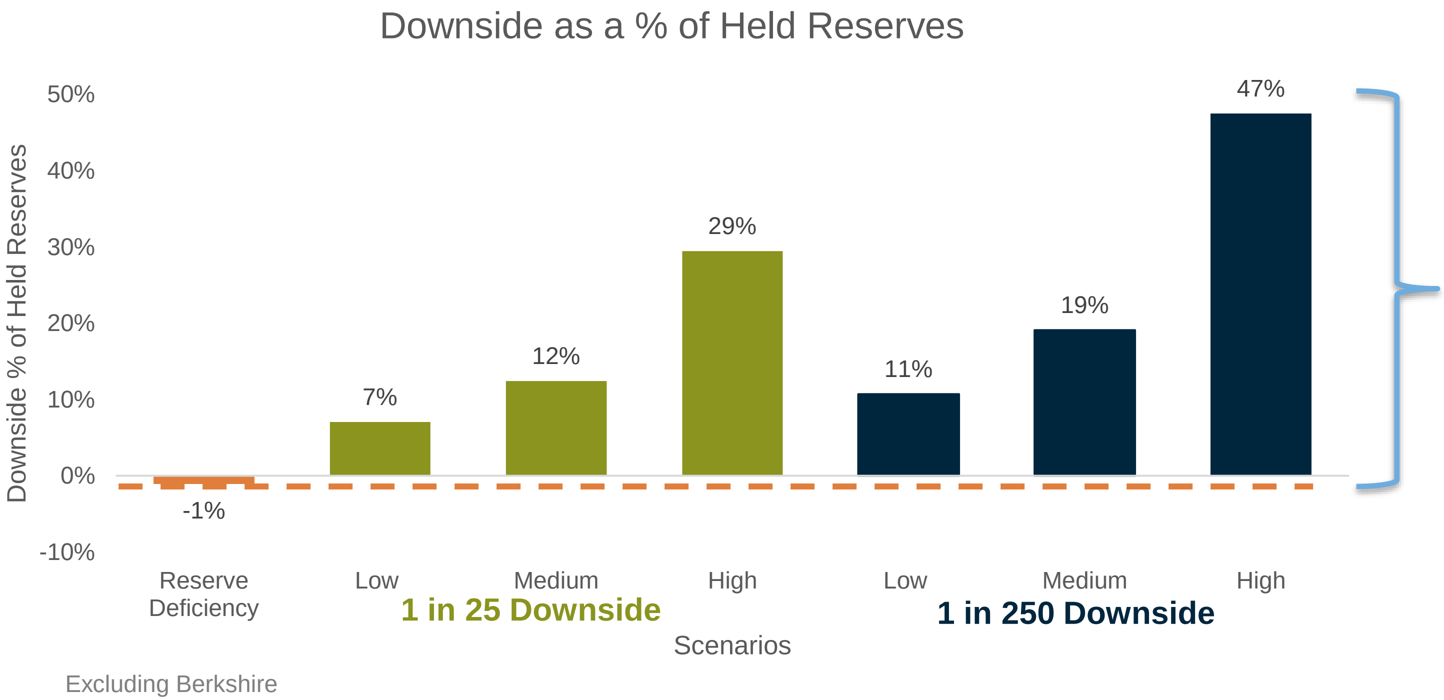
Other Liability - Occurrence



Other Liability – Claims Made

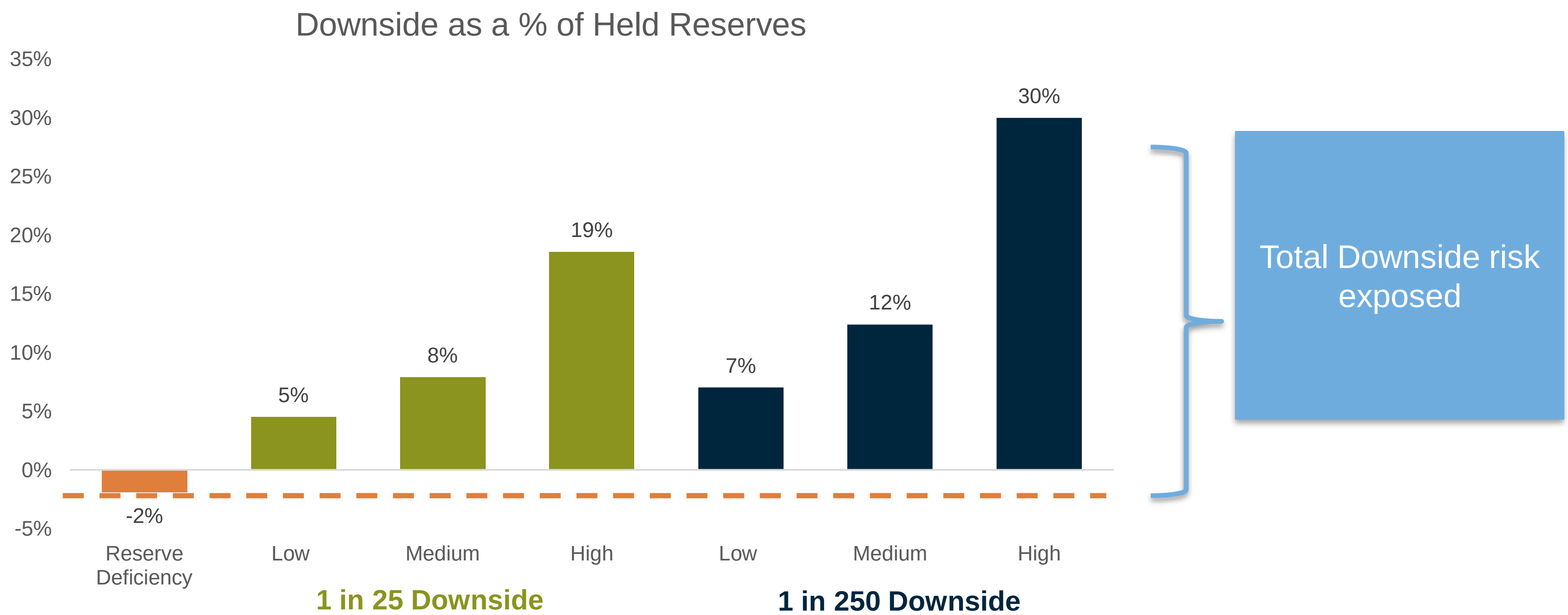


Medical Professional Liability– Claims Made



Portion of downside risk that is exposed

Commercial Auto Liability



Thank you!

Gallagher Re

General Disclaimer for all Analytical Work

This analysis has been prepared by Gallagher Re on the condition that it shall be treated as strictly confidential and shall not be communicated in whole, in part, or in summary to any third party without prior written consent from Gallagher Re. Gallagher Re is a business unit that includes a number of subsidiaries and affiliates of Arthur J. Gallagher & Co. which are engaged in the reinsurance intermediary and advisory business. All references to Gallagher Re below, to the extent relevant, include the parent and applicable affiliate companies of Gallagher Re.

Gallagher Re has relied upon data from public and/or other sources when preparing this analysis. No attempt has been made to verify independently the accuracy of this data. Gallagher Re does not represent or otherwise guarantee the accuracy or completeness of such data nor assume responsibility for the result of any error or omission in the data or other materials gathered from any source in the preparation of this analysis. Gallagher Re shall have no liability in connection with any results, including, without limitation, those arising from based upon or in connection with errors, omissions, inaccuracies, or inadequacies associated with the data or arising from, based upon or in connection with any methodologies used or applied by Gallagher Re in producing this analysis or any results contained herein. Gallagher Re expressly disclaims any and all liability, based on any legal theory, arising from, based upon or in connection with this analysis. Gallagher Re assumes no duty in contract, tort or otherwise to any party arising from, based upon or in connection with this analysis, and no party should expect Gallagher Re to owe it any such duty.

There are many uncertainties inherent in this analysis including, but not limited to, issues such as limitations in the available data, reliance on client data and outside data sources, the underlying volatility of loss and other random processes, uncertainties that characterize the application of professional judgment in estimates and assumptions. Ultimate losses, liabilities and claims depend upon future contingent events, including but not limited to unanticipated changes in inflation, laws, and regulations. As a result of these uncertainties, the actual outcomes could vary significantly from Gallagher Re’s estimates in either direction. Gallagher Re makes no representation about and does not guarantee the outcome, results, success, or profitability of any insurance or reinsurance program or venture, whether or not the analyses or conclusions contained herein apply to such program or venture.

Gallagher Re does not recommend making decisions based solely on the information contained in this analysis. Rather, this analysis should be viewed as a supplement to other information, including specific business practice, claims experience, and financial situation. Independent professional advisors should be consulted with respect to the issues and conclusions presented herein and their possible application.

Gallagher Re makes no representation or warranty as to the accuracy or completeness of this document and its contents.

This analysis is not intended to be a complete actuarial communication, and as such is not intended to be relied upon. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Gallagher Re actuaries are available to answer questions about this analysis.

Gallagher Re does not provide legal, accounting, or tax advice. This analysis does not constitute, is not intended to provide, and should not be construed as such advice. Qualified advisers should be consulted in these areas.

Gallagher Re makes no representation, does not guarantee and assumes no liability for the accuracy or completeness of, or any results obtained by application of, this analysis and conclusions provided herein.

Where data is supplied by way of CD or other electronic format, Gallagher Re accepts no liability for any loss or damage caused to the Recipient directly or indirectly through use of any such CD or other electronic format, even where caused by negligence. Without limitation, Gallagher Re shall not be liable for: loss or corruption of data, damage to any computer or communications system, indirect or consequential losses. The Recipient should take proper precautions to prevent loss or damage – including the use of a virus checker.

This limitation of liability does not apply to losses or damage caused by death, personal injury, dishonesty or any other liability which cannot be excluded by law.

This analysis is not intended to be a complete Financial Analysis communication. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Gallagher Re analysts are available to answer questions about this analysis.

Gallagher Re does not guarantee any specific financial result or outcome, level of profitability, valuation, or rating agency outcome with respect to AM Best or any other agency. Gallagher Re specifically disclaims any and all liability for all damages of any amount or any type, including without limitation, lost profits, unrealized profits, compensatory damages based on any legal theory, punitive, multiple or statutory damages or fines of any type, based upon, arising from, in connection with or in any manner related to the services provided hereunder.

Acceptance of this document shall be deemed agreement to the above.

Gallagher Re is a trading name of Arthur J. Gallagher (UK) Limited, which is authorised and regulated by the Financial Conduct Authority. Registered Office: The Walbrook Building, 25 Walbrook, London EC4N 8AW. Registered in England and Wales. Company Number: 1193013. www.ajg.com/uk

Gallagher Re is a trading name of Nordic Försäkring & Riskhantering AB (“Nordic”). Nordic is authorised by the Swedish Financial Supervisory Authority, and incorporated in Sweden under company number 556418-5014 with registered address at Mölndalsvägen 22, 412 63 Göteborg, Sweden. Nordic also offers and performs insurance distribution services/activities through its Belgian branch. The Belgian branch has its registered office at Posthofbrug 6-8 bus 5/134, 2600 Berchem, company number 0743.567.257. Nordic is also deemed authorised and regulated by the UK Financial Conduct Authority under the Temporary Permissions Regime. UK branch registered in England and Wales under branch number BR021003, with registered address at The Walbrook Building, 25 Walbrook, London EC4N 8AW.

v23.1

Vendor Disclaimers

Work containing Risk Management Solutions (RMS) output

This report, and the analyses, models and predictions contained herein ("Information"), are based on data provided by the relevant Gallagher Re entity, and compiled using proprietary computer risk assessment technology of Risk Management Solutions, Inc. ("RMS"). Such Information contains RMS confidential and proprietary information and trade secrets. The Recipient of the Information shall (i) not disclose such Information to any third party; (ii) use such Information only for the purpose of facilitating an actual imminent reinsurance placement (“Purpose”); (iii) limit the disclosure of such Information only to its employees, partners and directors who have a need to know, provided that the Recipient shall ensure that each of those persons to whom such Information is to be disclosed is made aware of, and shall procure that such person or persons adhere to, the terms of these confidentiality restrictions; and (iv) use the same degree of care to prevent disclosure or use of such Information for other than the Purpose that it would use for its own confidential information (but in no case with less than a reasonable degree of care). The technology and data used in providing this Information is based on the scientific data, mathematical and empirical models, and encoded experience of scientists and specialists (including without limitation: earthquake engineers, wind engineers, structural engineers, geologists, seismologists, meteorologists, geotechnical specialists, mathematicians and cyber security experts). As with any model of physical systems, particularly those with low frequencies of occurrence and potentially high severity outcomes, the actual losses from catastrophic events may differ from the results of simulation analyses. Furthermore, the accuracy of predictions depends largely on the accuracy and quality of the data used. The Information is provided under license to Gallagher Re and is either Gallagher Re’s or RMS’s proprietary and confidential information and may not be shared with any third party without the prior written consent of both Gallagher Re and RMS. Furthermore, this Information may only be used for the specific business purpose specified by Gallagher Re and for no other purpose, and may not be used under any circumstances in the development or calibration of any product or service offering that competes with RMS.

The Recipient of this Information is further advised that RMS is not engaged in the insurance, reinsurance, or related industries, and that the Information provided is not intended to constitute professional advice. RMS SPECIFICALLY DISCLAIMS ANY AND ALL RESPONSIBILITIES, OBLIGATIONS AND LIABILITY WITH RESPECT TO ANY DECISIONS OR ADVICE MADE OR GIVEN AS A RESULT OF THE INFORMATION OR USE THEREOF, INCLUDING ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL RMS (OR ITS PARENT, SUBSIDIARY, OR OTHER AFFILIATED COMPANIES) BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES WITH RESPECT TO ANY DECISIONS OR ADVICE MADE OR GIVEN AS A RESULT OF THE CONTENTS OF THIS INFORMATION OR USE THEREOF.

Vendor Disclaimers

Work containing AIR Worldwide Corporation (AIR) Touchstone output

IMPORTANT NOTICE and DISCLAIMER

AIR Worldwide Corporation and Gallagher Re

The attached Touchstone reports are provided to you in confidence, and you may not cause or permit disclosure, copying, display, loan, publication, transfer of possession (whether by sale, exchange, gift, operation of law or otherwise) or other dissemination of the Touchstone reports (or details of the methodology and analysis employed to develop the Touchstone reports) in whole or in part, to any third party without the prior written consent of Gallagher Re and AIR Worldwide Corporation (“AIR”).

Notwithstanding the foregoing, you may disclose the Touchstone reports associated with your reinsurance or risk transfer programs to insurance regulators and disclose, in confidence, to your rating agencies, reinsurers, actuarial consultants, managing general agencies, risk managers, investment bankers (but not in connection with the placement of any insurance-linked securities) and auditors (but in no event to any entity in the business of developing loss estimation models), provided that, in the event of any such disclosure, you clearly acknowledge in writing that AIR owns the exclusive right and title to the Touchstone reports and the methods employed to develop them.

You may not alter or remove any copyrights, trade secret, patent, proprietary and/or other legal notices contained on or in copies of the Touchstone reports. The existence of any such copyright notice on the Touchstone reports shall not be construed as an admission, or be deemed to create a presumption, that publication of such materials has occurred.

The Touchstone reports are intended to function as one of several tools which you will use in analyzing your estimated and potential losses from certain natural hazards. The estimation of hazards and potential losses involves uncertainties and depends on environmental, demographic and regulatory factors beyond the control of Gallagher Re and AIR. The Touchstone reports depend on data and inputs which you have supplied. The assumptions and methodologies used by AIR in creating Touchstone may not constitute the exclusive set of reasonable assumptions and methodologies, and the use of alternative assumptions and methodologies could yield materially different results. The loss probabilities indicated by the Touchstone reports are estimates of the magnitude of losses that may occur in the event of such natural hazards; they are not factual and do not predict future events. Actual loss experience can differ materially.

No responsibility is or shall be assumed or implied by Gallagher Re or AIR for loss or damage to you resulting from inaccuracies contained therein nor shall Gallagher Re or AIR be liable to you or others for any adverse results experienced in utilizing the Touchstone reports.

Work containing CoreLogic output

This report contains CoreLogic Confidential Information and i) recipient agrees to treat this report as strictly confidential; and ii) in consideration of having been provided access to this report, recipient agrees that CoreLogic has no liability for such report or other information derived from the report or any use that may be made thereof by recipient.

Work containing/using Kinetic data

The TAOS real-time hazard and impact forecast information is provided "as is" and without warranties as to performance or any other warranties whether expressed or implied. The user is strongly cautioned to recognize that natural hazards modeling and analysis are subject to many uncertainties. These uncertainties include, but are not limited to, the uncertainties inherent in weather and climate, incomplete or inaccurate weather data, changes to the natural and built environment, limited historical records, and limitations in the state of the art of modeling, as well as limits to the scientific understanding of storm weather phenomena. Anyone making use of the hazard and impact information provided by KAC, or the information contained within, assumes all liability deriving from such use, and agrees to "hold harmless" any and all agencies or individuals associated with its creation. The user agrees to provide any subsequent users of this data with this disclaimer. The publication of the material contained herein is not intended as a representation or warranty that this information is suitable for any general or particular use

Vendor Disclaimers

Work containing / using KatRisk output

To the best of KatRisk's knowledge, based on precautions ordinarily used in the development of such data, the data to be delivered to Gallagher Re is complete and accurate. As with any model of complex physical systems, particularly those with low frequencies of occurrence and potentially high-severity outcomes, errors are possible through no fault of KatRisk. KatRisk does not directly participate in the business of insurance, reinsurance or related industries, and the KatRisk provided data and models are not intended to constitute professional advice as to any particular situation. KatRisk specifically disclaims any and all responsibilities and obligations with respect to any decisions or advice made or given as a result of the use of KatRisk data and models.

Work containing Cyence output

This document contains proprietary, confidential information of Cyence and is intended for your internal use only and may not be shared with any third party without Cyence's prior written consent. Any statements concerning professional advice, including but not limited to actuarial, tax, accounting, or legal matters, are not to be relied upon as professional advice, for which you should consult your own professional advisors. Any modeling, analytics, or projections are subject to inherent uncertainty, and the Analysis could be materially affected if any underlying assumptions, conditions, information, or factors are inaccurate or incomplete or should change. The information contained herein is based on sources Cyence believes reliable, but Cyence makes no representation or warranty as to its accuracy or completeness. All representations and warranties, express, implied, or statutory, including any implied warranty of merchantability, fitness for a particular purpose, title, noninfringement of third party rights, from course of dealing, usage or trade practice, are disclaimed and the Analysis and data is provided "as-is." Without limiting the foregoing, Cyence makes no warranty of any kind that the Analysis and data, or any results of the use thereof, will meet your or any other party's requirements, or achieve any intended result. Cyence shall have no obligation to update the Analysis and data and shall have no liability to you or any other party with regard to the Analysis and data or to any services provided by a third party to you or Cyence.

Work containing JBA output

© JBA Risk Management Limited 2023. Gallagher Re accepts no responsibility or liability for any use that is made of this document or the results and information it includes other than by the intended recipient for the purposes for which it was originally commissioned and prepared. Readers are cautioned against placing undue reliance upon any statements contained herein. Copyright and all other intellectual property rights in the document, its contents and the underlying data belong to and shall remain the property of Gallagher Re and/or JBA Risk Management Limited. The recipient shall not (save only as may be permitted by law and not otherwise) copy, reproduce, record, adapt, modify, reformat, reverse compile any content in whole or in part, or do any other such act which might affect the rights or interests of Gallagher Re and JBA Risk Management Limited. The dissemination, reproduction or use of this document without Gallagher Re's express written permission is prohibited. Recipient acknowledges that the contents of this document deal with the probabilities of natural hazards which are highly uncertain and accordingly that Gallagher Re and JBA Risk Management Limited cannot and do not represent, warrant or guarantee the accuracy of the output, its indications, estimates or outputs. Recipient further accepts that the output is developed using information compiled and provided by third parties and includes information based on third party information which is not guaranteed, and that accordingly Gallagher Re and JBA Risk Management Limited are unable to provide and gives no warranty, guarantee or other assurance that the contents of this document are accurate, complete, up-to-date or will meet the present or future requirements of the recipient , or any third party to which the output or such material is supplied. Recipient is cautioned against placing undue reliance upon any statements contained in the output from this project. This report does not constitute advice in relation to the underwriting and placement of insurance and reinsurance risk of any kind whatsoever.

Working containing Cyber Cube output

This report ("Report") is compiled and generated based on the data and information provided by client ("Client") using CyberCube Analytics Inc.'s ("CyberCube") proprietary cyber analytics technology and platform. The analyses and results contained in the Report are therefore dependent on the accuracy, quality, reliability and completeness of Client's data. The Report is compiled strictly and solely for the Client's internal business use only and accordingly, may not be used for other purposes including but not limited to the development of any product or service offerings which directly or indirectly competes with CyberCube. Client acknowledges that the Report is CyberCube's proprietary and confidential information and it shall not under any circumstances disclose the Report to any third party without CyberCube's prior written consent. The Report is provided on an "as is" basis, and all warranties, representations, guarantees, conditions and terms other than those expressly set out herein whether express or implied by statute, common law, trade usage or otherwise and whether written or oral are hereby expressly excluded to the fullest extent permissible by law. Furthermore, CyberCube does not warrant or assume any liability in respect of any information or methods disclosed in the Report, any use made of the Report or any decision made pursuant to or on reliance of the Report. In no event shall CyberCube or its affiliates be liable for any direct or indirect loss of profit, loss of business, loss of contracts, loss of anticipated savings, loss of goodwill and reputation or any incidental, consequential or special loss whether arising under contract, tort (including negligence) or otherwise with respect to the content of, decisions made or advice made or given arising from or in connection with the Report.

CyberCube Analytics Inc., 58 Maiden Lane, 3rd Floor, San Francisco, California 94108.

Vendor Disclaimers

Work using AM Best ratings data

The following disclaimer attaches to all documentation relating to AM Best rating data.

Best's Credit Ratings™ are under continuous review and subject to change and/or affirmation. For the latest Best's Credit Ratings™ and Best's Credit Reports (which include Best's Credit Ratings™), visit the AM Best website at http://www.ambest.com. See Guide to Best's Credit Ratings™ for explanation of use and charges." "Best's Credit Ratings™ reproduced herein appear under license from AM Best and do not constitute, either expressly or impliedly, an endorsement of Risk Intelligence Market Security or its recommendations, formulas, criteria or comparisons to any other ratings, rating scales or rating organizations which are published or referenced herein.

AM Best is not responsible for transcription errors made in presenting Best's Credit Ratings™. Best's Credit Ratings™ are proprietary and may not be reproduced or distributed without the express written permission of AM Best Company."

AM Best's Financial Strength Rating opinion addresses the relative ability of an insurer to meet its on going insurance obligations. It is not a warranty of a company's financial strength and ability to meet its obligations to policyholders. View our Important Notice: Best's Credit Ratings for a disclaimer notice and complete details at http://www.ambest.com/ratings/notice

Work using Fitch ratings data

The following disclaimer attaches to all documentation containing Fitch Ratings data.

"None of the Fitch information may be copied or otherwise reproduced, repackaged, further transmitted, transferred, disseminated, redistributed or resold, or stored for subsequent use for any such purpose, in whole or in part, in any form or manner or by any means whatsoever, by any person without Fitch's prior written consent."

Work using S&P ratings

The following disclaimer attaches to all documentation containing Standard & Poor's data.

"Copyright © 2023, S&P Global Market Intelligence (and its affiliates, as applicable). Reproduction of any information, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact."

Work including ISO MarketStance material or data (credit such information where possible)

Copyright © Insurance Services Office, Inc. and affiliates. Used with permission. The thoughts, views and opinions of Gallagher Re contained herein do not represent the thoughts, views and opinions of Insurance Service Office, Inc. or its subsidiaries and affiliates.

v23.1

CAS Spring Meeting 2023:

Managing Reserve Risk – Retrospective Reinsurance

Products, Solutions, and Market Landscape

Raju Bohra / May 8, 2023

Gallagher Re

Discussion Outline

I. Current Market Conditions

II. Products and Structural Considerations

III. Financial and Capital Considerations

IV. Underwriting and Pricing Considerations

V. Conclusion – Strategic Reserve Risk Management

©2022 ARTHUR J. GALLAGHER & CO.

Legacy Reinsurance – Current Market Landscape

Managing and navigating a growing and dynamic marketplace

Macro-Environment

- Inflation concerns causing re-assessment of reserve uncertainty
- Holding reserves increasingly capital intensive
  - Proposed S&P capital model
- Interest rates rising
- Continued emphasis on UW rather than investment float
- Industry reserve cushion seen as diminishing and moving closer to adequate levels

Reinsurers

- See US market opportunity
- Growth of specialized legacy "consolidators"
  - Continued capital raising
  - Claims and operational expertise
  - ADC's as well as LPT's
  - Rated reinsurers less active
- Increased use of collateralized security
  - Requires more explicit evaluation of limit requirements, asset guidelines, and credit risk

Cedants

- Increasing cedant activity in legacy deals, disposals, as well as capital relief solutions
- Rising deal volume necessitates well run marketing process to achieve competitive pricing
- Runoff deals now regarded as an accepted strategic and capital management tool
  - Address growth and ROE targets
  - Refocus on current market opportunities

Recent Market Activity

Overview of selected recent US related deals (2019 – 2023)

Company	Type	Details
Sirius Point - 2023	LPT	Assumed Re
QBE - 2023	LPT	Diversified Casualty 2010-2018
MS Amlin - 2023	LPT	Lloyds RITC
Aspen – 2022	LPT	PL Liability 2019 and prior
Argo - 2022	LPT	US Casualty (AY 2011-2019)
JRG - 2022	ADC (ITM)	Assumed Re (AY 2011-2020)
QBE - 2022	LPT	US E&S Casualty (AY 2016-2020)
Aspen – 2022	LPT	All lines (AY 2019 and prior)
Axa XL – 2021	ADC (ITM)	Global Casualty & PL (AY 2019 and prior)
CNA – 2021	LPT	Runoff XC WC book transfer
Aspen – 2020	ADC (ITM)	Multiple lines (AY 2019 and prior)
Hallmark – 2020	LPT	Discontinued Commercial Auto
Liberty – 2019	ADC (ITM)	WC, GL, Commercial Auto.
Zurich NA – 2019	LPT	Asbestos & Environmental.

**All information based on public sources and disclosures*

- Capital continues to enter space
- Scale and number of transactions continue to rise every year
- Both LPT and ADC structure used
- Increasingly transfer of recent AY and not just legacy reserves
- Range of motivations from finality/exit to capital/volatility

Discussion Outline

I. Current Market Conditions

II. Products and Structural Considerations

III. Financial and Capital Considerations

IV. Underwriting and Pricing Considerations

V. Strategic Reserve Risk Management

©2022 ARTHUR J. GALLAGHER & CO.

High Level Structural Options

Well-established structural options can be tailored for transaction motivation

Adverse Development Cover (ADC)

Loss Portfolio Transfer (LPT)

Legal Sale / Insurance Business Transfer (IBT)

Capital / Earning Protection ← Motivation → Legacy Disposal

Adverse Development Cover (ADC)

Overview

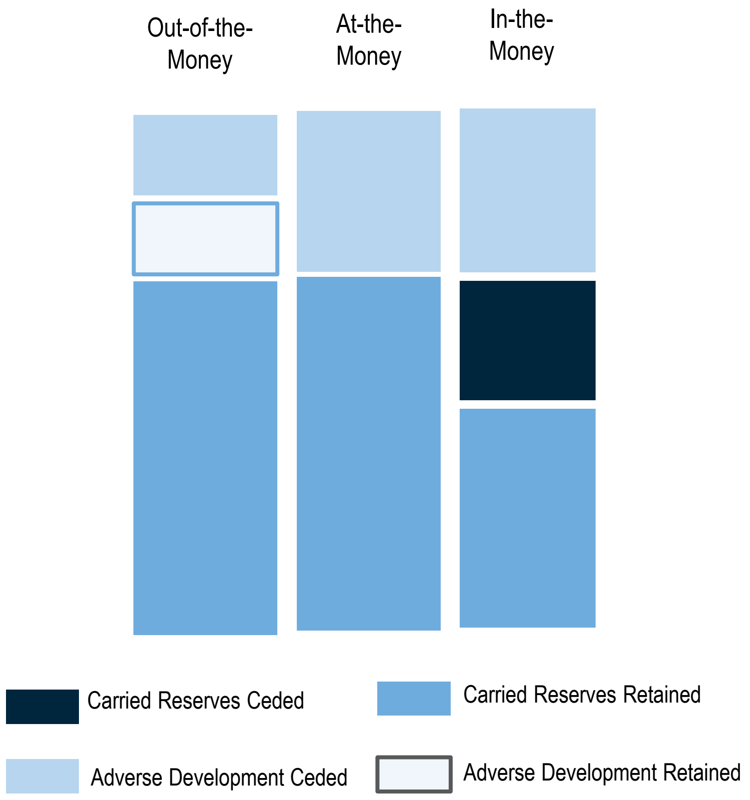
- A retrospective **stop loss on reserves**, to manage the whole account or specific lines
- With respect to current claims reserves this can **attach within, at or above the held reserves**
- Can be set up as a **rolling facility to provide ongoing capital alleviation**

Rationale for purchase

- **Reduces capital charges and earnings volatility** above ADC attachment point
- Allows you to **retain control of claims**, protecting against reputational concerns
- ITM ADC can help mitigate cost by **ceding away investment income on held reserves**
- Attaching at current reserves also provides a greater element of **earnings protection**

Flexibility of structural features

- ADCs allow a **range of structural features to mitigate costs of placement**:
  - In the money – cedes last to pay portion of reserves to lower RI premium and generate additional reserve risk capital relief
  - At the money – provides volatility protection above current held reserves
  - Out of the money – introduces loss corridor to lower RI premium but reduces capital relief
- All are likely to **require some form of co-participation when claims control is not transferred**



Potential to quickly address earnings / capital challenges, doesn't solve operational challenges

Illustrative ADC

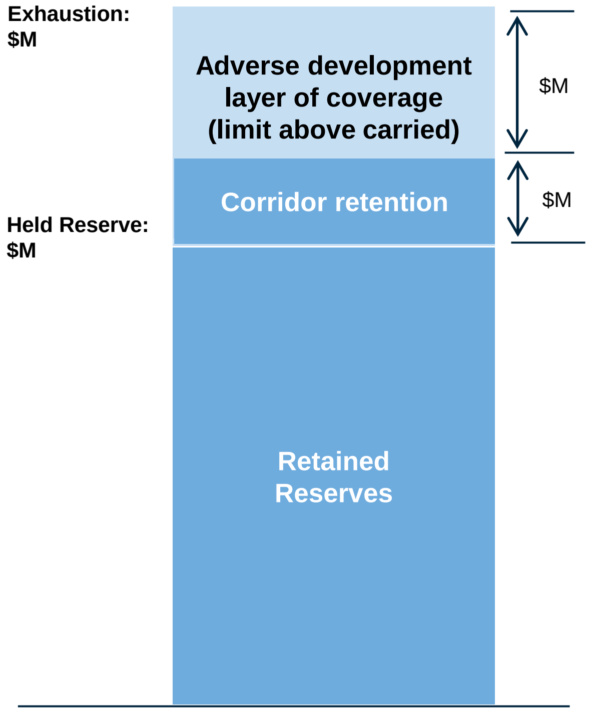
Conceptual Terms

Reinsured:	[]	
Reinsurer:	[]	
Type:	Adverse Development Cover	
Subject business:	$[]M reserves	
ADC structure:	Retained reserves:	$[]M
	Corridor retention:	$[]M xs $[]M
	ADC Layer:	$[]M xs $[]M
	Exhaustion:	$[]M ([]%-tile)
	Premium:	$[]M
	Reserve Transfer:	If "In-the-Money"

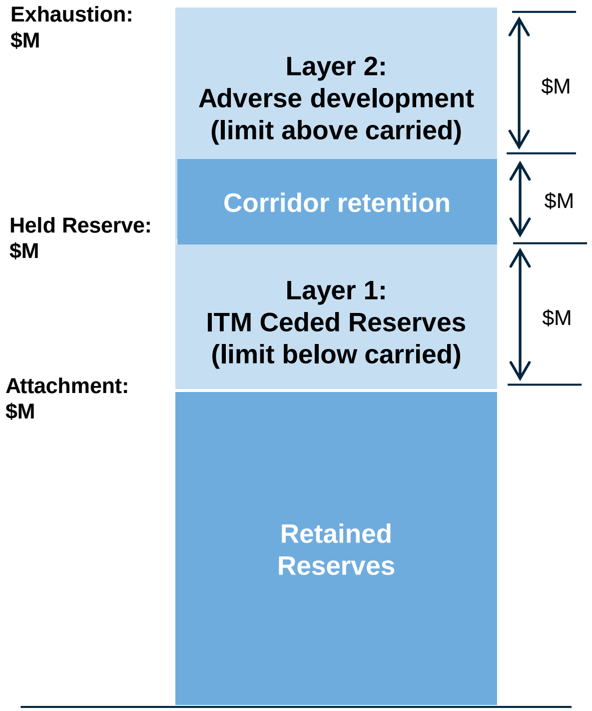
Parameters

- Payout: [] MTP [(underlying)]
- Discount rate: []%
- [No] claim control transfer

Adverse Development Cover (ADC)
(out-of-the-money)



In-the-Money (ITM) ADC
(aka Hybrid LPT)



- Capital relief reflects limit of coverage above carried (e.g., Layer 2)
- Value of asset transfer Layer 1 (limit below carried) used to fund cost of risk transfer Layer 2 (limit above carried)

Loss Portfolio Transfer (LPT)

Overview

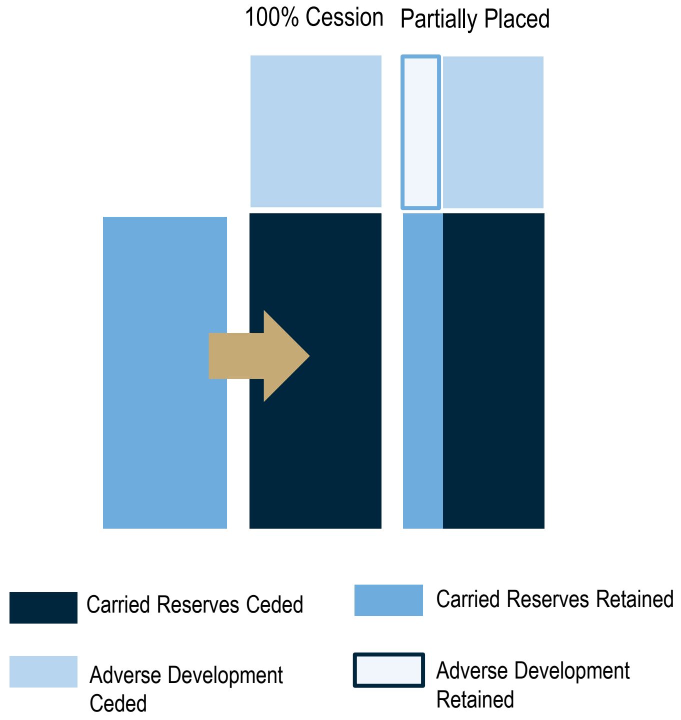
- A retrospective **quota share of reserves** to transfer whole account or specific lines
- Can be **fully or partially placed**
- May have a monetary **cap on losses ceded / limit of coverage**

Rationale for purchase

- **Select specific lines / classes** for divestment (vs an entire YOA)
- LPTs can be stratified to **allow the retention of claims control in key areas**
- **Operational efficiencies can still be derived**, including claims outsourcing where required
- Potential to increase the number of bidding counterparties, **lowering execution risk for** lightly structured deals

Flexibility of structural features

- LPTs allow the introduction of a range of structural features including:
  - **Business selection / exclusion or partial placement** structures to facilitate the **retention of claims control** or **retain an element of reserve upside** (although partial placement also exposes cedent to **potential future downside**)
  - Use **of funds withheld accounts to mitigate liquidity issues** / ceding of reserve margin (subject to cost of investment crediting rate and negotiation of appropriate reallocation of profit commission at commutation)



Less finality than an legal sale / IBT, but still an effective tool to manage class-specific challenges

Illustrative LPT

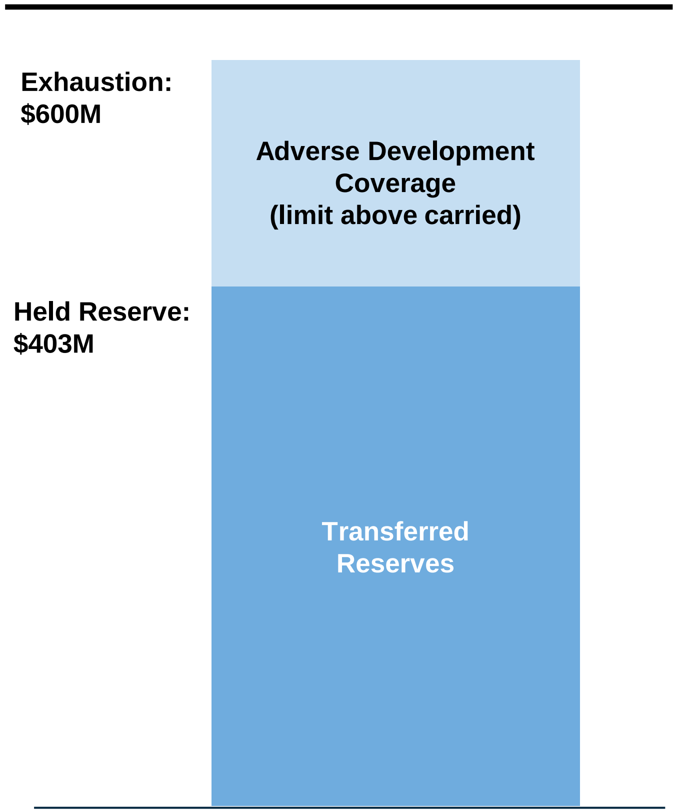
Conceptual Terms

Reinsured:	[]
Type:	Loss Portfolio Transfer
Subject Reserves:	$[]M reserves
LPT Limit:	$[]M, []% of Subject Reserves
Premium:	$[]M
Payment:	Funds transferred [or retained]
Security:	As required for security criteria and regulatory credit
Claims handling:	To be transferred [or retained]

Assumptions to be refined

- Reserve adequacy
- Payout: [] MTP
- LOB guideline volatility ([]% CV)
- Investment yield: []%

Loss Portfolio Transfer (LPT)



- Economic protection to selected percentile (based on volatility assumptions)
- LPTs provide for operational relief through transfer of claims handling (ULAE savings)
- Competitive placement
- Potentially income neutral at inception as premium reflects assets backing transferred liabilities
- However significant asset transfer

Insurance Business Transfer (IBT)

Overview

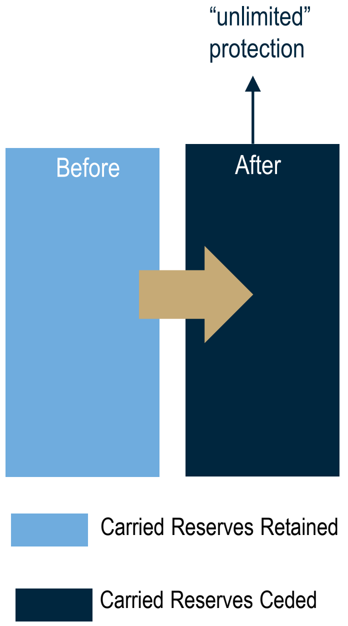
- An IBT is akin to a legal **transfer of gross liability** legally separating transferred reserves from carrier to acquirer. There is **no cap on losses** ceded.
- Rhode Island and Oklahoma have most developed regulation around IBT transactions with the NAIC and other states considering similar statutes.

Rationale for purchase

- An IBT **provides finality**. No further reserves would have to be held for the relevant business, providing a **significant capital benefit**
- Transfer of gross liabilities ensures **full operational relief can be achieved**

Flexibility of structural features

- IBTs are somewhat **limited in terms of flexible features,** **and claims transfer is a standard feature**
- Significant regulatory and legal process, as well as approval



IBTs provided legal and economic finality but are relatively untested in US but growing interest

U.S. Regulatory Overview – Finality Solutions

Traditional exit alternatives and transfers

- Run off / Sale /Reinsurance LPT
- Novation or accelerated commutation followed by sale or reinsurance
- Insurance Receivership Model Act

Business transfers for solvent entities

- Assumption Reinsurance Model Act
- Rhode Island Voluntary Restructuring
- Insurance company division (six states)
- Corporate company division (two states)
- Vermont Legacy Insurance Management Act
- Insurance Business Transfers – Three states, including Oklahoma

Rhode Island Voluntary Restructuring

- Voluntary Restructuring of Solvent Insurers – Chapter 27-14.5, applies only to commercial carriers domiciled in Rhode Island
- *"A Rhode Island domestic insurance company meeting the requirements of subsection (i) hereof and formed or re-activated for the sole purpose of entering into a voluntary restructuring under this chapter and whose liabilities consist of commercial liabilities transferred to said company with the approval of the commissioners and pursuant to the regulations issued by the department under this chapter. The amount of the commercial liabilities transferred must be less than or equal to the amount of assets transferred to the newly formed or re-activated company."*

Oklahoma's Business Transfer Act

- *Oklahoma Senate Bill 1101 (Modeled after UK Part VII Transfer)*
- Procedure for the transfer and statutory novation of polices from transferring insurer to assuming insurer by way of an Insurance Business Transfer without affirmative consent of policyholders/reinsureds
- Novation will be subject to regulatory and court approval
- Makes no delineation between types of eligible insurance coverage to ensure run off business is captured within this

Discussion Outline

I. Current Market Conditions

II. Products and Structural Considerations

III. Financial and Capital Considerations

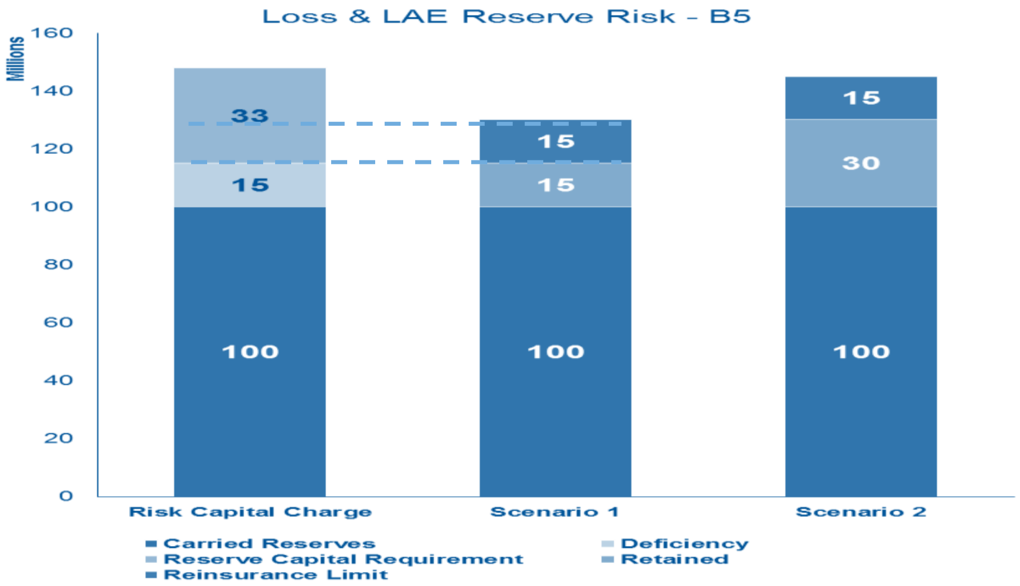
IV. Underwriting and Pricing Considerations

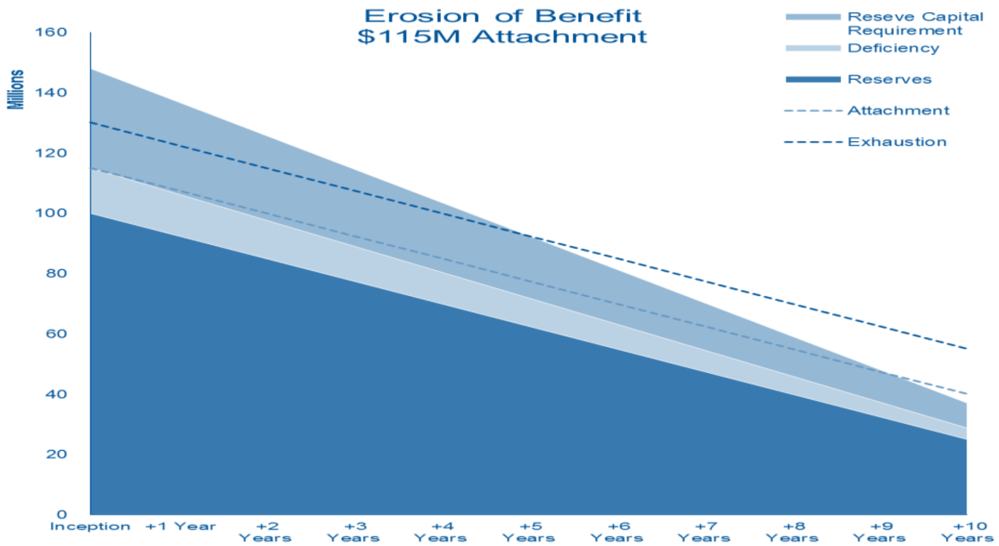
V. Strategic Reserve Risk Management

©2022 ARTHUR J. GALLAGHER & CO.

Rating Agency Capital Models

Impact of Reserve Covers



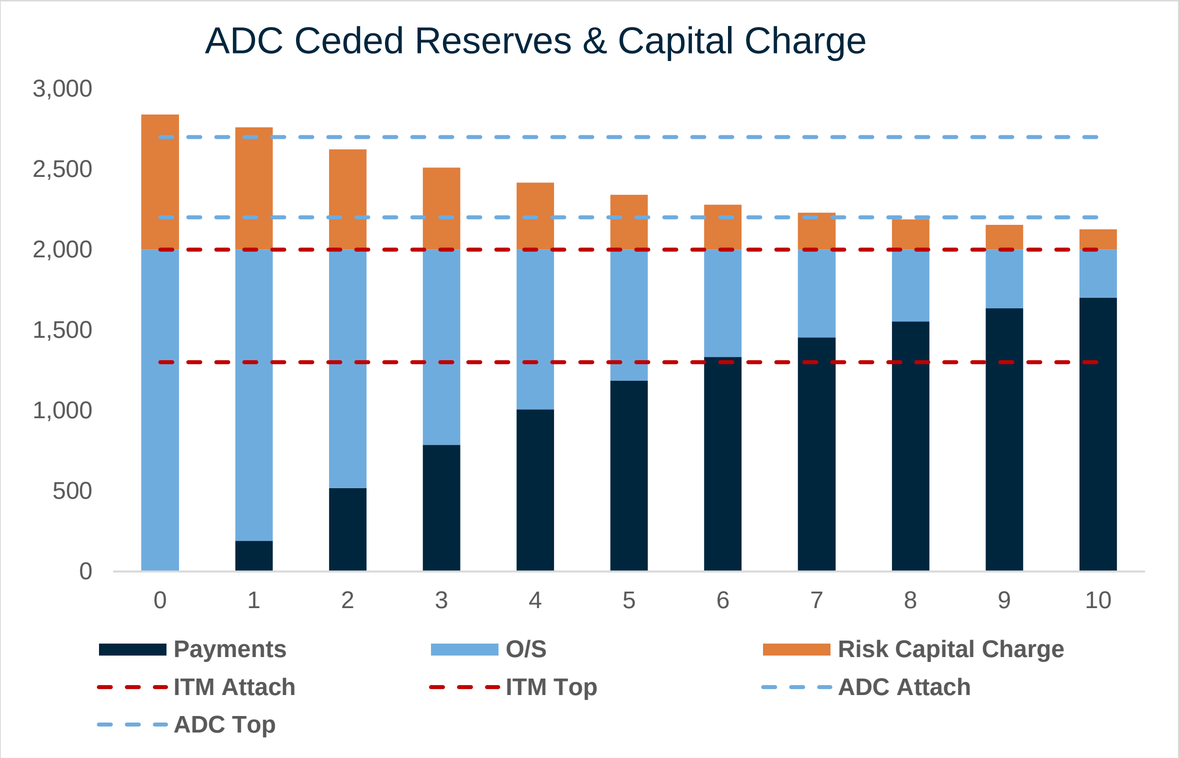


- Capital requirements for reserves reflected by reserve factor charge
- ADC limit can offset the reserve capital
  1. Subject to diversification reduction
  2. No benefit above/below "capital layer"
- However, cost is dependent on attachment point, the higher the attachment point, the lower the cost
  1. But higher attachment provides less protection against adverse development

- Benefit erodes over time as reserves are paid out
  1. Longer benefit for lower attaching layer
  2. Benefit erodes quicker for higher layer
- S&P released guidance reflecting the benefit of reserve covers in their capital model (August 2019)
  1. *"Effectively executed LPT/ADC transactions could enhance cedants' financial risk profiles and overall creditworthiness"*
  2. Ultimate benefit will need to be negotiated
  3. Similar treatment in AM Best BCAR

Determining the Capital Benefit & Cost of Capital

Illustrative LPT/ADC Structure impact over capital holding period



Assumptions:

- $2.0b casualty reserves
- 36% capital charge
- Reserve adequacy
- Sched P payout: 5yr MTP
- Volatility: 20% CV, inv inc 3.0%

ADC structure:

- Limit: $500m
- Attachment: $2.2b
- Corridor: $200m (10%)
- Premium: $100m (20% ROL)
- Alternative: $750 ITM Layer

Capital benefit (illustrative)

- Relief per capital model (Proposed S&P capital model)
  - 1st year lifts score 5%
  - Roughly 1% per $100m limit
- Reflects limit, capital charge, payment pattern
- Downside loss absorption

Cost of Capital (illustrative)

- Premium and loss investment income on transferred reserve assets relative to long run capital benefit
  - Modeled 6.0% cost of capital
  - Close to debt costs with benefit of risk transfer
- In-the-Money (ITM) layer alternative reflects forgone investment income & favorable development potential

Gallagher Re

Discussion Outline

I. Current Market Conditions

II. Products and Structural Considerations

III. Financial and Capital Considerations

IV. Underwriting and Pricing Considerations

V. Strategic Reserve Risk Management

©2022 ARTHUR J. GALLAGHER & CO.

Underwriting Considerations

Company:

- Client Motivation
- Moral Hazard
- Information Asymmetry
- Alignment of interests (Partnership)
- Outwards Reinsurance

Portfolio:

- Size of Reserve Portfolio
- Lines of Business
- Territories / Jurisdictions
- Reinsurance-Assumed or Direct Business
- Outwards Reinsurance

17

Actuarial Considerations

- Understanding of defined subject book of reserves
  - Business unit, products, or policies
  - Covered Accident Years
  - Ongoing or discontinued book
- Actuarial data and analysis of subject reserves
  - Loss triangles of paid losses and case outstanding
  - View of IBNR specific to subject reserves (not corporate allocation)
  - Internal and 3rd party analyses of subject reserve portfolio

Quality / Quantity
- How much history
- Triangle reconciliation to loss runs & financials

→ Large Loss Details? → Claim counts? → Loss Triangles? → Transactional history by claim? → Gross & Net?

Independent 3rd-party reports

- 1-to-1 match to deal reserves?

- Conversation with Independent Actuary

In-house Actuarial Reports

- Quarterly monitoring

- Conversation with in-house actuary

18

Pricing Considerations

The reinsurance premium for a retroactive cover can be thought of as consisting of two components:

- The discounted value of transferred reserves, plus
- A risk margin for the limit provided above carried reserves

The discounted value of carried reserves is primarily driven by:

- The expected **pay-out pattern**, and
- The **current interest rate environment**

and to a relatively less extent by:

- **Reserve adequacy** and **reserve volatility** (deficient reserves or adverse development due to volatility accelerates the pay-out

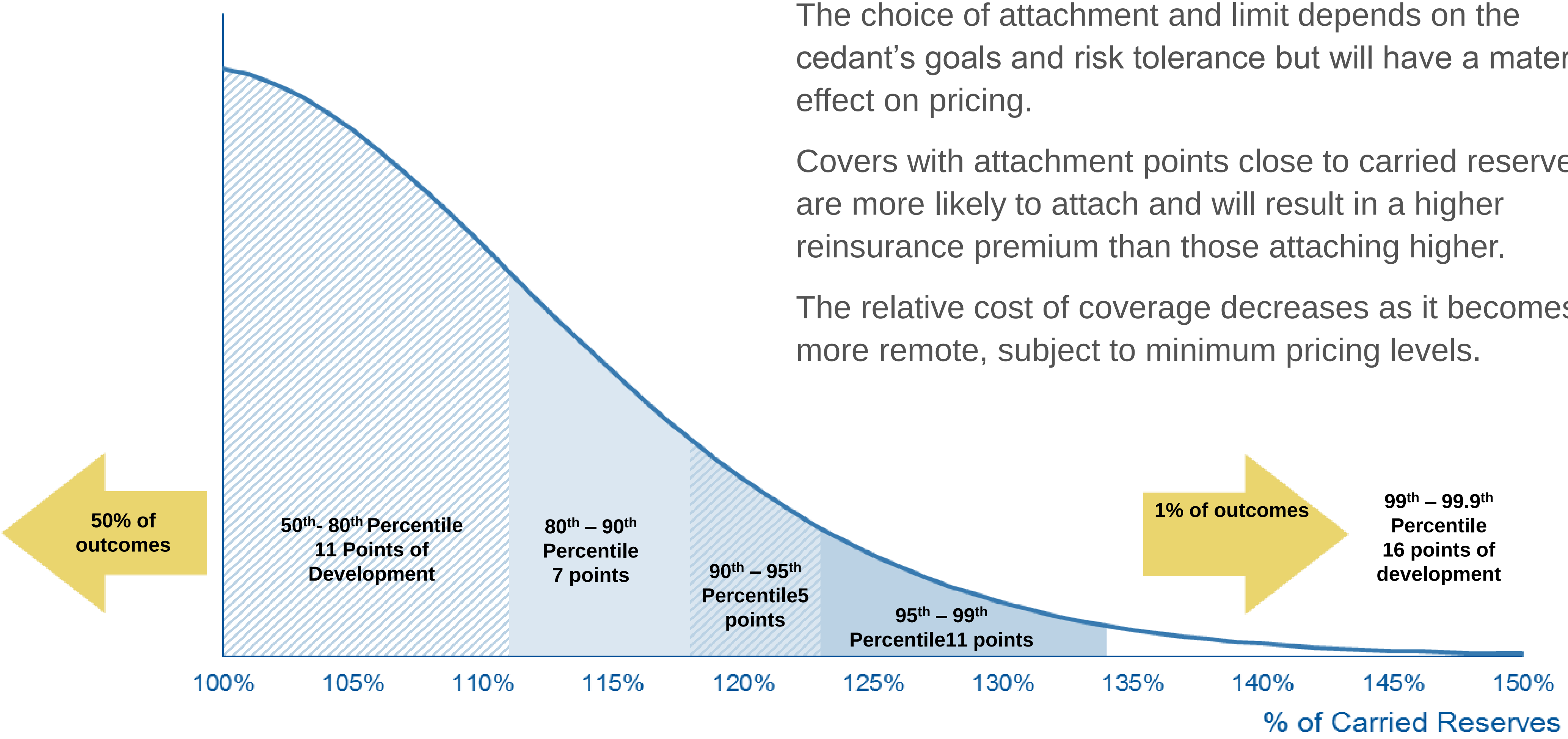
The risk margin for limit above carried is primarily driven by:

- The **attachment** and **limit** provided by the retroactive cover
- **Reserve adequacy**
- **Reserve volatility**

And to a lesser extent by:

- The expected **pay-out** and **current interest rates** (since limit above carried is last-to-pay)

Structure: Attachment and Limit

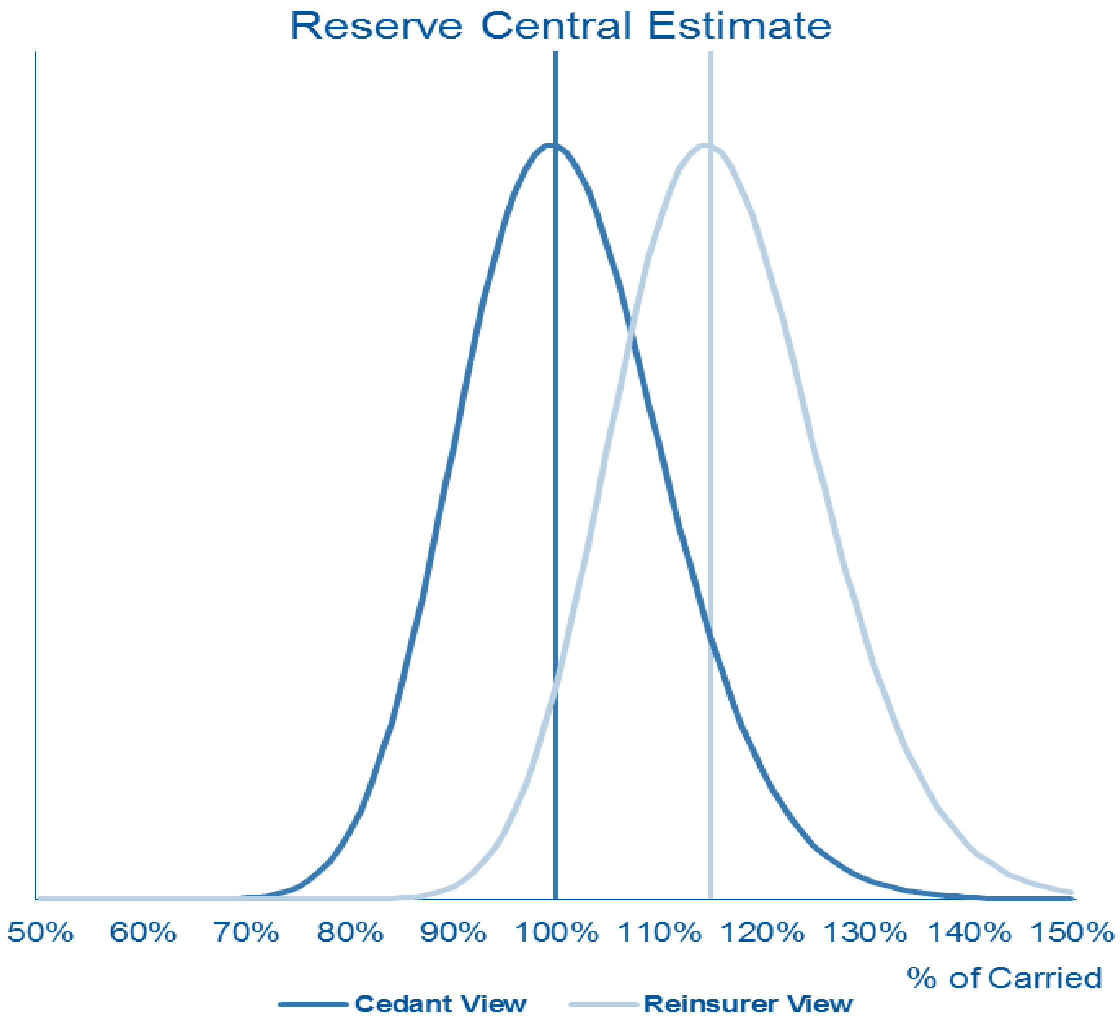


The choice of attachment and limit depends on the cedant's goals and risk tolerance but will have a material effect on pricing.

Covers with attachment points close to carried reserves are more likely to attach and will result in a higher reinsurance premium than those attaching higher.

The relative cost of coverage decreases as it becomes more remote, subject to minimum pricing levels.

Adequacy of Carried Reserves



The first component of pricing is a determination of the adequacy of carried reserves through:

Actuarial Analysis

- Paid and Incurred Triangles
- External Actuarial Reviews

Claims Analysis

- Review of open and closed claims

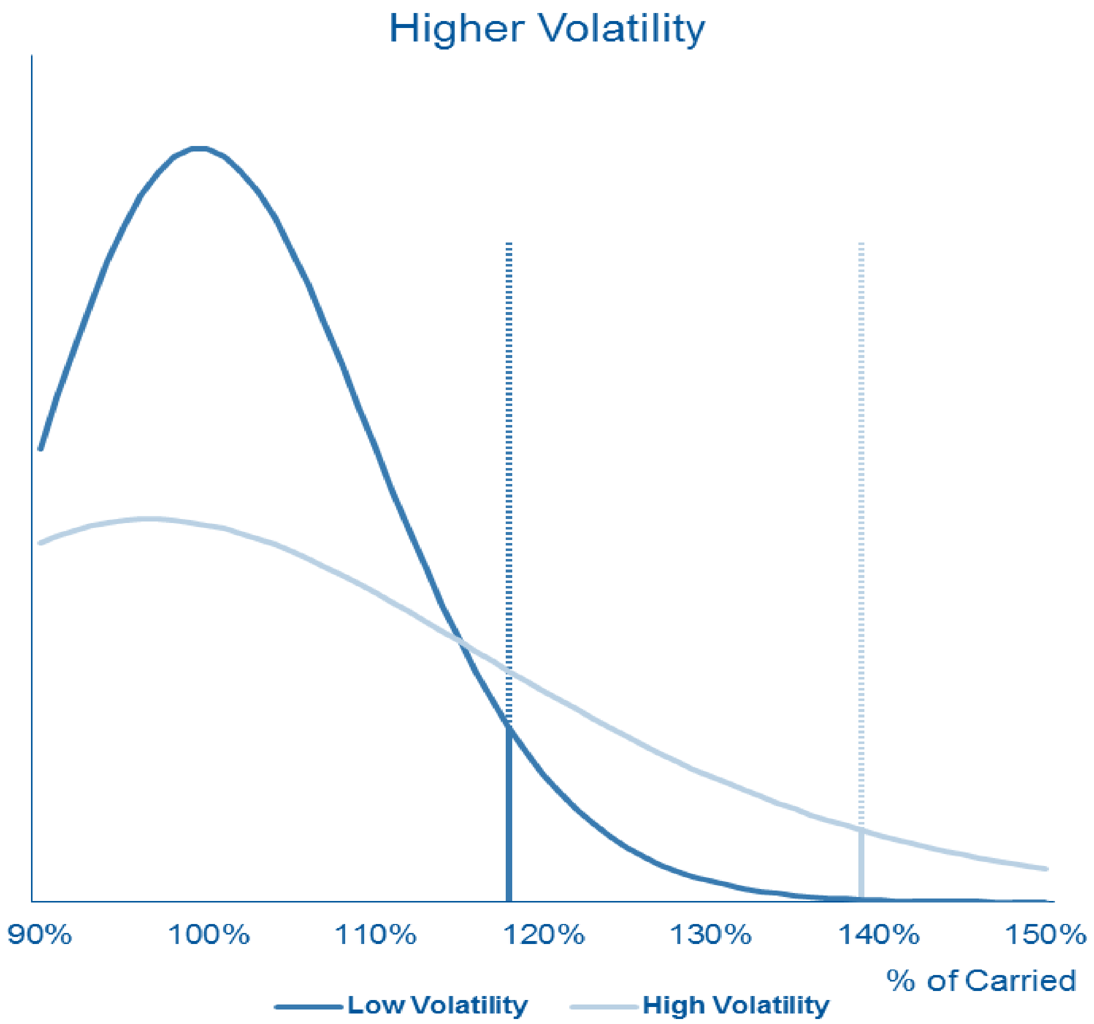
Where we are in the Industry Cycle

- Is the Line understood to be over or under reserved?

Company History

- Past adverse development
- Changes in exposure
- Changes in claims handling procedures
- Data quality
- Gross vs. Net

Volatility of Carried Reserves



At the same time adequacy is being assessed the potential volatility of ultimate is also determined through:

Actuarial Analysis

- Paid and Incurred Triangles
- External Actuarial Reviews

Claims Analysis

- Review of open and closed claims

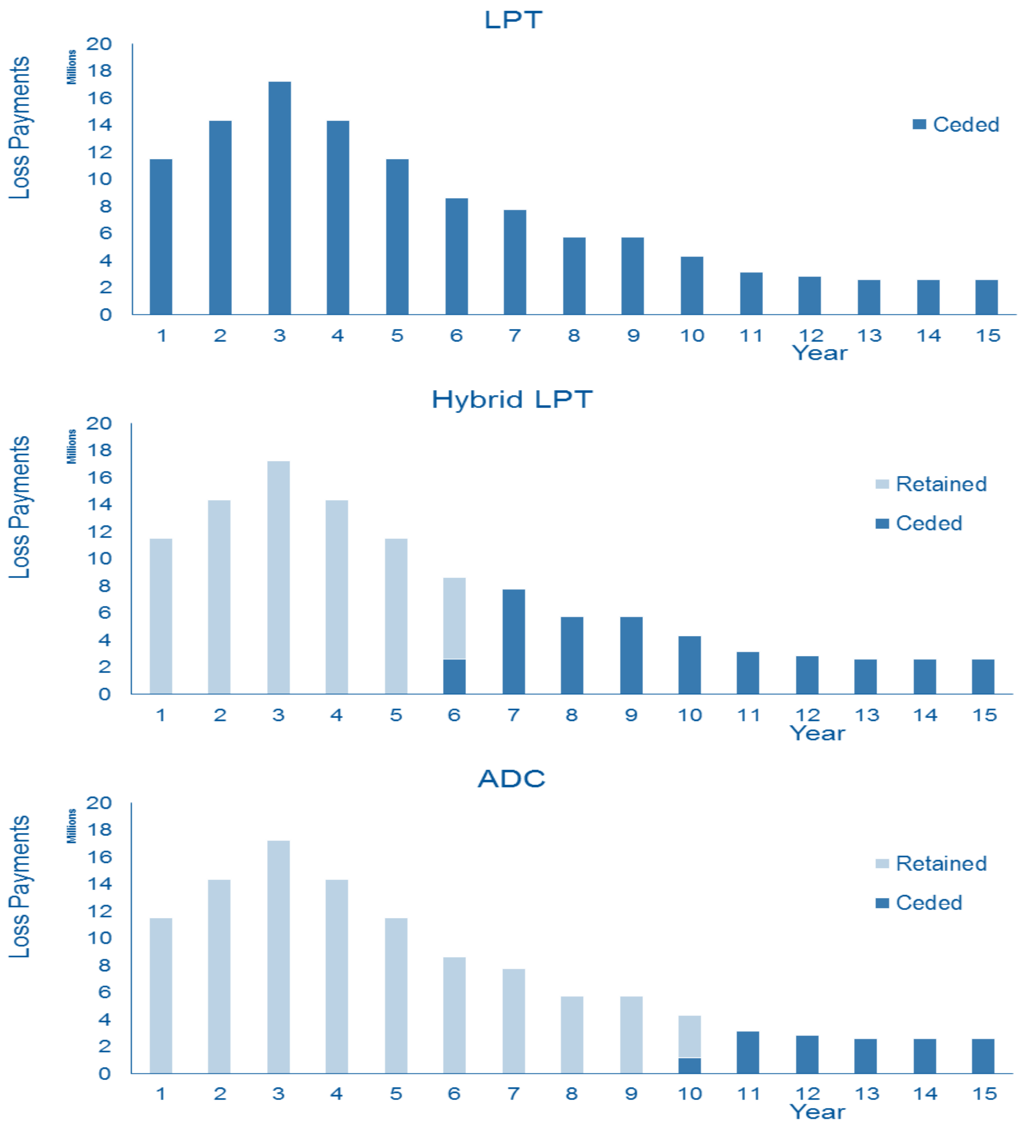
Where we are in the Industry Cycle

- Is the Line understood to be over or under reserved?

Company History

- Past adverse development
- Claims handling procedures
- Changes in exposure
- Changes in number of lines/diversification
- Inuring Reinsurance/Retentions

Pay-Out Period & Discount Rate



Retroactive reinsurance takes advantage of discounting - adverse protection excess of carried reserves is the "last to pay," further maximizing the effect.

The duration of reserves covered (mean time to pay) depends on:

- Characteristics of the underlying business (LOB and retention)
- Attachment point of the retroactive cover – higher attachment points result in longer MTPs

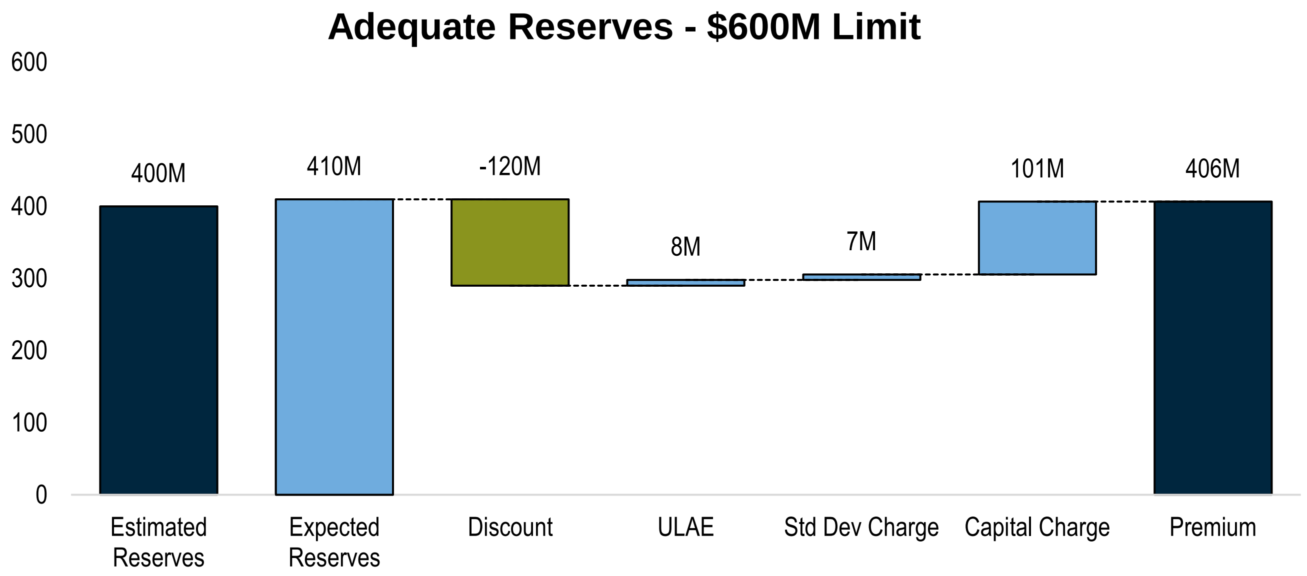
Adverse development can result in acceleration of loss payments and substantial decrease in MTP

- Leveraged effect on "excess" attachments

The amount of discount embedded in carried reserves also depends on interest rate used

- Typically see duration matched 70-100 bps + risk-free rate
- Current interest rate environment is volatile

Deriving Market Pricing Illustration



Key input assumptions to derive a market price range

Input	Pricing Range Driven by Assumptions					
Reserve Valuation	-$50M	adequate	+$50M	-$50M	adequate	+$50M
Limit (%-tile)	$600M (90%)	$600M (90%)	$600M (90%)	$700M (95%)	$700M (95%)	$700M (95%)
Payment Pattern (MTP)	12.5 years	12.5 years	12.5 years	12.5 years	12.5 years	12.5 years
Interest Rate	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Volatility (CV)	40%	40%	40%	40%	40%	40%
Reinsurer Required IRR	10%	10%	10%	10%	10%	10%
Illustrative Premium	**$392M**	**$406M**	**$420M**	**$437M**	**$455M**	**$470M**

Retroactive pricing model

- Stochastic cashflow model:
  - Best estimate reserve valuation
  - Correlated portfolio CoV
  - Payment patterns
  - Reinsurer investment income
  - Reinsurer capital allocation
- Distribution of reinsurer's cashflows are evaluated to understand KPIs such as underwriting result, internal rate of return (IRR) and probability of loss

Determining an appropriate LPT price:

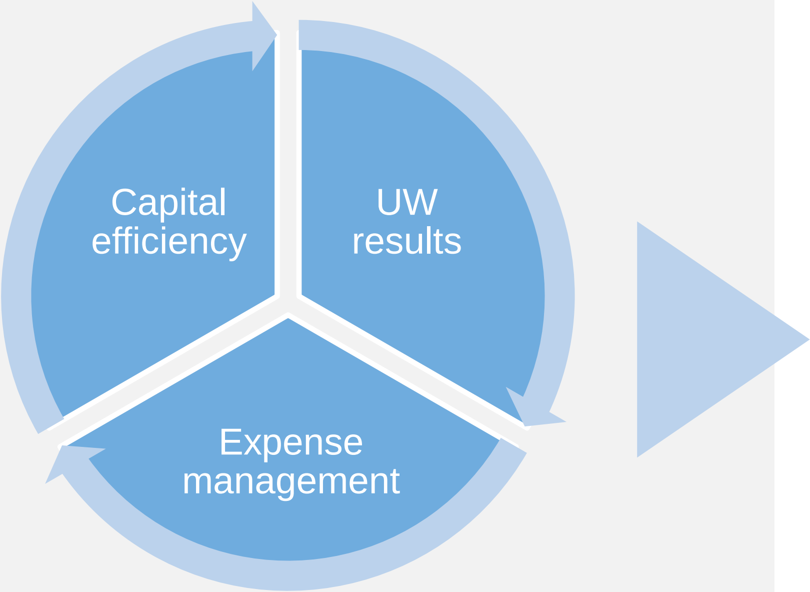
- Reinsurance premium is derived from assessing a reinsurer's IRR over the run-off period, considering:
  - Expected margin (+/-) to best estimate liabilities
  - Capital required to support the deal
  - Investment income

Discussion Outline

©2022 ARTHUR J. GALLAGHER & CO.

Reserve optimisation as part of your planning process

Focus of typical planning cycle:



We believe that performance can be significantly enhanced by evaluating business that has already been written i.e. by optimising **capital allocation** and **operational expense** via a proactive reserve management strategy.

Agenda items for reserve optimisation review process:

Review of existing reserve management strategy

- Portfolio review should be conducted at an appropriate level of granularity

Consider whether portfolio segments are strategically important (core v non-core) – Identify which portfolio segments add or destroy value

- Understand level of capital intensity
- Understand potential for earnings volatility
- Understand portfolio running cost (expense intensity)
- Is asset portfolio yield likely to cover the cost of allocated capital?
- If portfolio is deemed to be destroying value, is there a strategic reason to continue running the portfolio?

What is the structure, availability and cost of alternative risk management / financing mechanisms?

- Is there potential to improve capital efficiency?
- What is the potential to reduce earnings volatility?
- Is there potential to release trapped capital for reallocation?
- Could a potential transaction support wider strategic objectives?

Consider Trade-offs

- Can brand integrity be maintained? (i.e. retain claim control)
- Materiality of foregone investment income
- Execution risk
- Sustainability of alternative strategies

General Disclaimer for all Analytical Work

This analysis has been prepared by Gallagher Re on the condition that it shall be treated as strictly confidential and shall not be communicated in whole, in part, or in summary to any third party without prior written consent from Gallagher Re. Gallagher Re is a business unit that includes a number of subsidiaries and affiliates of Arthur J. Gallagher & Co. which are engaged in the reinsurance intermediary and advisory business. All references to Gallagher Re below, to the extent relevant, include the parent and applicable affiliate companies of Gallagher Re.

Gallagher Re has relied upon data from public and/or other sources when preparing this analysis. No attempt has been made to verify independently the accuracy of this data. Gallagher Re does not represent or otherwise guarantee the accuracy or completeness of such data nor assume responsibility for the result of any error or omission in the data or other materials gathered from any source in the preparation of this analysis. Gallagher Re shall have no liability in connection with any results, including, without limitation, those arising from based upon or in connection with errors, omissions, inaccuracies, or inadequacies associated with the data or arising from, based upon or in connection with any methodologies used or applied by Gallagher Re in producing this analysis or any results contained herein. Gallagher Re expressly disclaims any and all liability, based on any legal theory, arising from, based upon or in connection with this analysis. Gallagher Re assumes no duty in contract, tort or otherwise to any party arising from, based upon or in connection with this analysis, and no party should expect Gallagher Re to owe it any such duty.

There are many uncertainties inherent in this analysis including, but not limited to, issues such as limitations in the available data, reliance on client data and outside data sources, the underlying volatility of loss and other random processes, uncertainties that characterize the application of professional judgment in estimates and assumptions. Ultimate losses, liabilities and claims depend upon future contingent events, including but not limited to unanticipated changes in inflation, laws, and regulations. As a result of these uncertainties, the actual outcomes could vary significantly from Gallagher Re's estimates in either direction. Gallagher Re makes no representation about and does not guarantee the outcome, results, success, or profitability of any insurance or reinsurance program or venture, whether or not the analyses or conclusions contained herein apply to such program or venture.

Gallagher Re does not recommend making decisions based solely on the information contained in this analysis. Rather, this analysis should be viewed as a supplement to other information, including specific business practice, claims experience, and financial situation. Independent professional advisors should be consulted with respect to the issues and conclusions presented herein and their possible application.

Gallagher Re makes no representation or warranty as to the accuracy or completeness of this document and its contents.
This analysis is not intended to be a complete actuarial communication, and as such is not intended to be relied upon. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Gallagher Re actuaries are available to answer questions about this analysis.

Gallagher Re does not provide legal, accounting, or tax advice. This analysis does not constitute, is not intended to provide, and should not be construed as such advice. Qualified advisers should be consulted in these areas.

Gallagher Re makes no representation, does not guarantee and assumes no liability for the accuracy or completeness of, or any results obtained by application of, this analysis and conclusions provided herein.

Where data is supplied by way of CD or other electronic format, Gallagher Re accepts no liability for any loss or damage caused to the Recipient directly or indirectly through use of any such CD or other electronic format, even where caused by negligence. Without limitation, Gallagher Re shall not be liable for: loss or corruption of data, damage to any computer or communications system, indirect or consequential losses. The Recipient should take proper precautions to prevent loss or damage – including the use of a virus checker.
This limitation of liability does not apply to losses or damage caused by death, personal injury, dishonesty or any other liability which cannot be excluded by law.

This analysis is not intended to be a complete Financial Analysis communication. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Gallagher Re analysts are available to answer questions about this analysis.

Gallagher Re does not guarantee any specific financial result or outcome, level of profitability, valuation, or rating agency outcome with respect to A.M. Best or any other agency. Gallagher Re specifically disclaims any and all liability for all damages of any amount or any type, including without limitation, lost profits, unrealized profits, compensatory damages based on any legal theory, punitive, multiple or statutory damages or fines of any type, based upon, arising from, in connection with or in any manner related to the services provided hereunder.

Acceptance of this document shall be deemed agreement to the above.

Gallagher Re is a trading name of Arthur J. Gallagher (UK) Limited, which is authorised and regulated by the Financial Conduct Authority. Registered Office: The Walbrook Building, 25 Walbrook, London EC4N 8AW. Registered in England and Wales. Company Number: 1193013. www.ajg.com/uk

Gallagher Re is a trading name of Nordic Försäkring & Riskhantering AB ("Nordic"). Nordic is authorised by the Swedish Financial Supervisory Authority, and incorporated in Sweden under company number 556418-5014 with registered address at Mölndalsvägen 22, 412 63 Göteborg, Sweden. Nordic also offers and performs insurance distribution services/activities through its Belgian branch. The Belgian branch has its registered office at Posthofbrug 6-8 bus 5/134, 2600 Berchem, company number 0743.567.257. Nordic is also deemed authorised and regulated by the UK Financial Conduct Authority under the Temporary Permissions Regime. UK branch registered in England and Wales under branch number BR021003, with registered address at The Walbrook Building, 25 Walbrook, London EC4N 8AW.