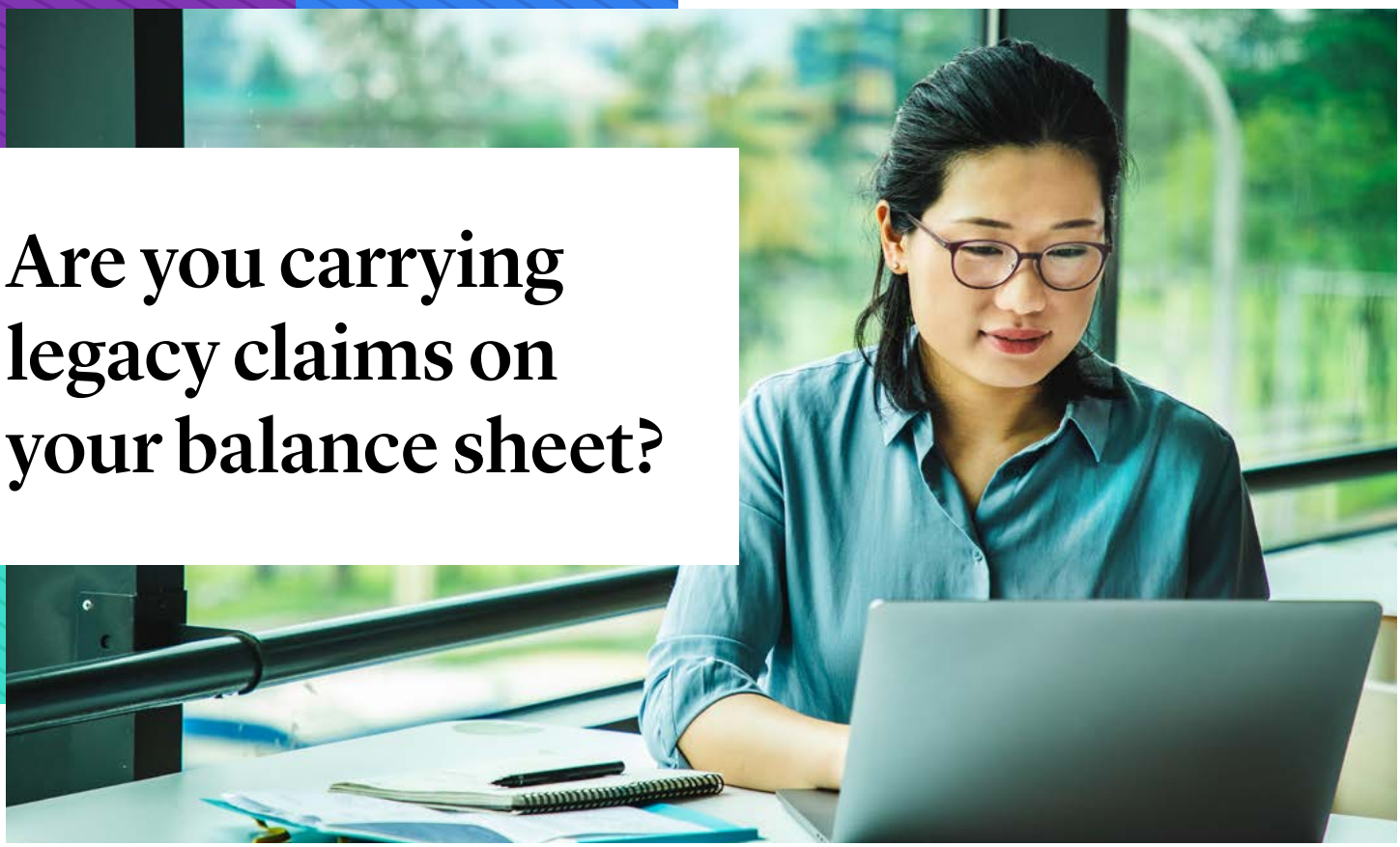
Are you carrying legacy claims on your balance sheet?



Are you carrying legacy insurance liabilities on your balance sheet that reduce your letter of credit capacity and add insurer collateral costs to your profit and loss (P&L) statement? A legacy insurance claim closure project can reduce these balances, collateral costs, administrative burdens and managed care costs.

It is generally thought the sole purpose of these projects is to accelerate the final resolution of older claims that may get lost in the handling process. But there is a second purpose often overlooked — the mitigation of exposure related to serious claims that cannot be closed.

A properly executed claim closure project affects your liabilities in two ways:

1 It accelerates the closure rate of a universe of older insurance claims which reduces the liability on these claims to zero.

2 It positively impacts the exposure of claims that are not brought to final resolution by reducing the actuarial estimation of the liability.

Not all claim closure project teams are created equal. An important question to ask when engaging an insurance claims team to conduct a claim closure and impact project, “Is your actuarial team aware and engaged in the project?” If they are not, you may not realize the benefits and it could result in a negative outcome.

Why are claim closure projects necessary?

Most corporations and insurance carriers engage claims handling firms or hire claims professionals to manage their casualty claims. Due to heavy workloads and other factors, many corporations or carriers also engage in what is commonly called a claim closure project.

How are claim closure projects executed?

Outside consultants work with the current claims professionals to strategize and take action to reduce the claim severity and close claims. The typical focus of these projects is trying to close claims. Unfortunately, focusing only on the impact of the closed claims is missing half the picture. These closure projects should really be called claim impact projects because they create value from claim closures and reduce the severity of open claims that stay open during the project. As an actuary, I can appreciate the natural development (increase in claim severity) over the life of a claim. These projects also reduce the future development and severity of the claims that do not close during the project.

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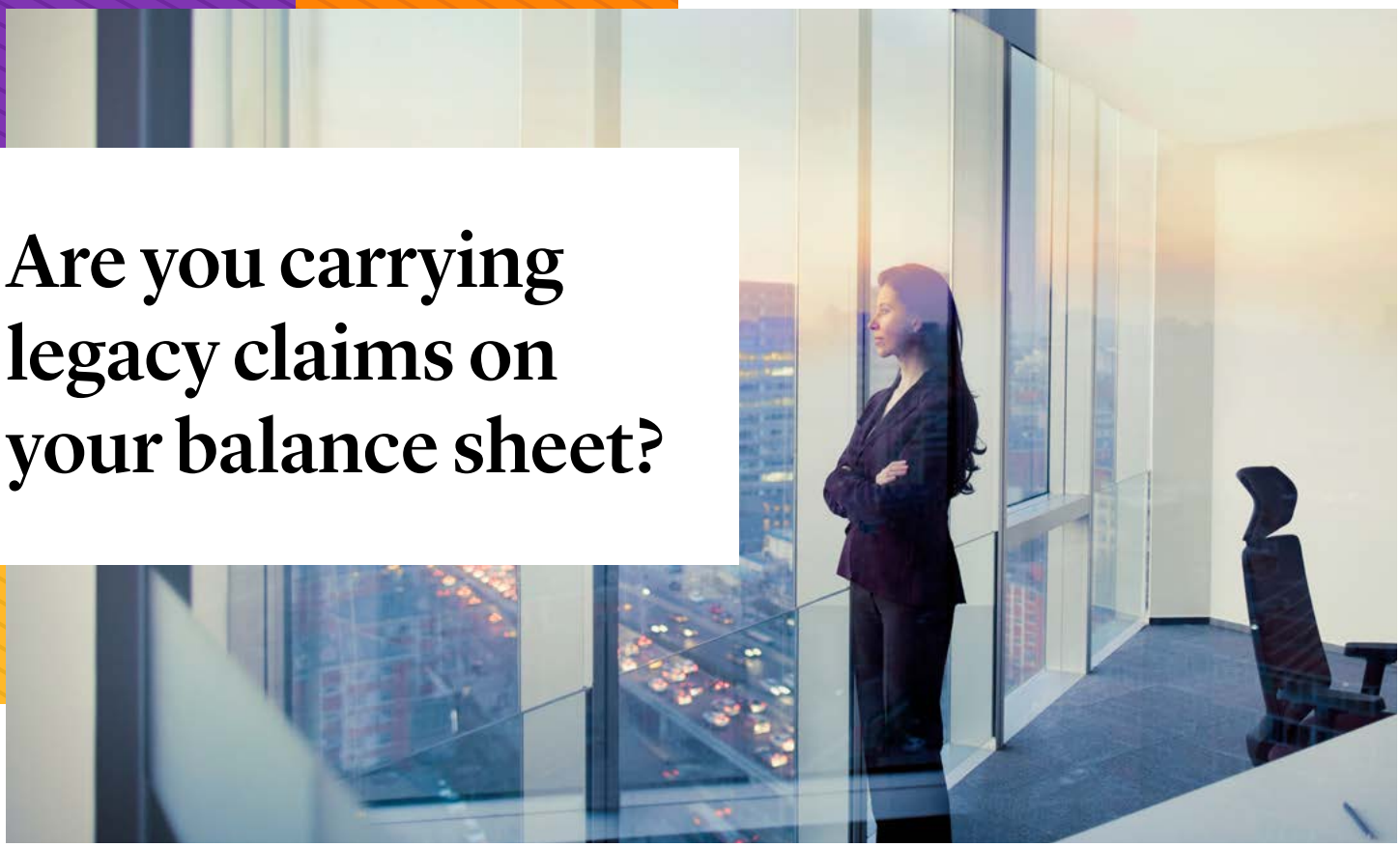

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How do the benefits impact balance sheet and collateral costs?

Once the claims portion of the project is completed and tremendous value is created, how do these actions make it into the financials? Typically, an actuary is used to quantify the aggregate liability for all these claims. Actuaries rely on historical patterns and data to project the liability. Stability of these patterns is important. Claim closure projects disrupt these patterns. As a result, actuaries need to apply methods that adjust for these disruptions (faster claim closure, accelerated case reserve setting, faster claim payments) or their methods will be biased and indicate that the liability is worse (higher) instead of better (lower) because of the project. It is very important that the actuary makes these adjustments because if not, actuarial estimates could incorrectly say things got worse, not better financially.

As such, firms need an effective claims consulting team to create impact and an actuary who understands and quantifies the impact (on both open and closed claims) to translate the benefit to the balance sheet. Without an effective claims consulting team and an open-minded actuary, all the benefit of the claim closure project will not be recognized correctly in the balance sheet in a timely manner.

There are two major points to remember:

- An accelerated closure initiative should include an 'impact' analysis, conducted by an experienced team of claim professionals.
- The actuarial team must be made aware of the project scope before it starts, and kept apprised throughout the project with periodic updates.

Keeping your actuaries 'in the light' throughout your closure and impact project can help dramatically increase the chances that your project will have a positive impact on your balance sheet. Conversely, engaging an actuary who understands that they need to be flexible and adjust to the trends will improve the odds of financial success. For those interested the actuarial adjustment process, there is a technical appendix for your review.

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Technical appendix and definitions

Claim Closure Project (CCP) Overview

- A project where an outside consultant is brought in to help the current claims handling organization close claims and reduce further development (increases) on open claims
- Only claims older than 12 months old are typically accepted
- Typically focused on workers compensation but can also be performed on auto and general liability

Actuarial implications

- Potential acceleration of claim closure rates
- A moderate increase in claim payment activity
- Potential increase in average case reserves per open claim
- May cause typical methods – development, BF (Bornhuetter-Ferguson*) and IBNR (incurred but not reported)/case to overstate ultimate losses

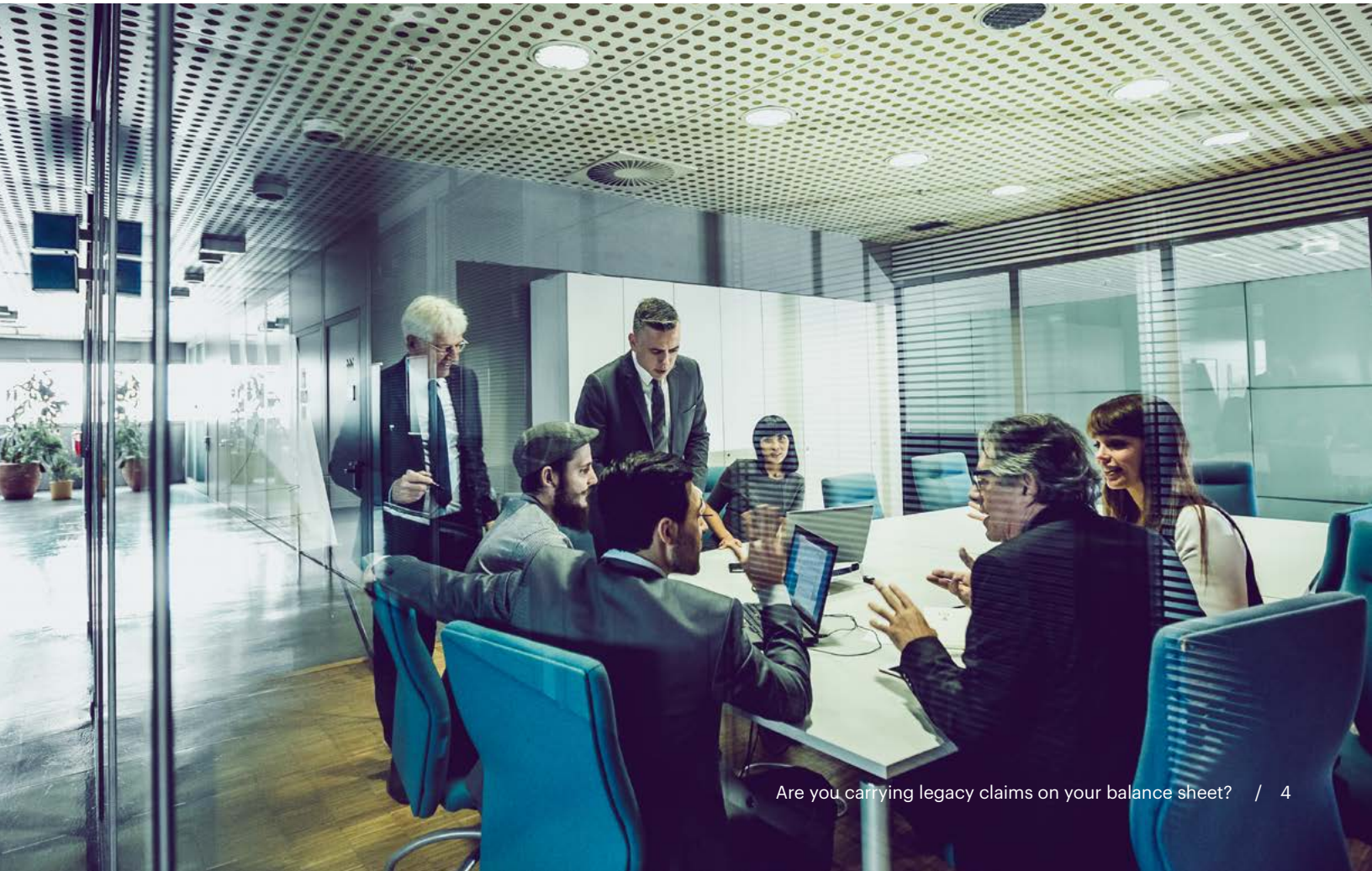
*The standard Berquist — Sherman type of adjusted paid loss development method (Adjusted Paid Loss Development Method) uses interpolation at many points to transform an age-based triangle into a closure-based triangle. International Actuarial Association: A similar adjustment is made on the incurred losses but it is based on the average case reserve per open claim. Source: https://www.actuaries.org/ASTIN/Colloquia/Orlando/Papers/Marsden.pdf

Actuarial approach and adjustments

- Review diagnostics to confirm the anticipated trends are happening
- Paid loss — review average paid loss severity — both accident year and calendar year — comparing to prior years
- Paid loss — review calendar paid loss — comparing to prior years after considering exposure changes
- Average case reserve per open claim — comparing to prior years — calendar year and accident year basis
- Even if the closure rate has not changed, paid losses and the average case reserve per open claim could be increasing

Assuming trends have been identified, additional methods should be considered:

- Paid loss Berquist Sherman* — adjusts for changes in paid loss activity considering impact of changes in claim closure rate
- Incurred loss Berquist Sherman* — adjusts for case reserve adequacy changes
- Average unpaid method — adjusts for case reserve adequacy changes and claim closure rate changes
- Average IBNR method — adjusts for claim closure changes but not case reserve or paid loss activity changes



Below are illustrative examples using sample data

- A CCP began on 4/1/22 — lasts 18 months
- Most recent actuarial study completed as of 4/30/23
- Claim closure rate not increasing significantly
- Average case reserve per open claim is increasing
- Existing methods are potentially biased high
- Added the average unpaid method and the average IBNR method

Pre-method diagnostics — Average case reserve per open claim

Accident year	3m	15m	27m	39m	51m	63m
2014	3,576	15,765	25,739	33,634	37,164	41,650
2015	3,692	17,048	20,577	30,597	46,627	58,007
2016	3,984	13,158	28,398	36,411	63,736	68,202
2017	3,050	17,091	28,242	45,914	61,242	56,434
2018	4,042	20,895	30,902	47,083	63,164	**66,116**
2019	4,861	20,383	35,885	42,556	45,878	
2020	6,575	20,595	**42,896**	**51,077**		
2021	7,667	**28,571**	**50,934**			
2022	**9,456**	**24,862**				
2023	**9,640**					

Average case reserve per open claim is increasing.

Pre-method diagnostics — Claim closure rate

Accident year	3m	15m	27m	39m	63m
2014	22%	78%	92%	96%	98%
2015	23%	79%	91%	96%	99%
2016	25%	75%	92%	97%	99%
2017	17%	79%	93%	97%	99%
2018	26%	82%	94%	97%	99%
2019	33%	81%	92%	96%	**99%**
2020	36%	79%	92%	**96%**	
2021	31%	79%	**93%**		
2022	28%	**78%**			
2023	**31%**				

Closure rate shows no material change.

Diagnostics — Calendar period paid loss

Calendar period	6 month CY Pd
2019-1	16,729,302
2019-2	16,227,743
2020-1	18,097,026
2020-2	18,245,146
2021-1	18,625,353
2021-2	16,143,294
2022-1	18,204,535
2022-2	18,576,916

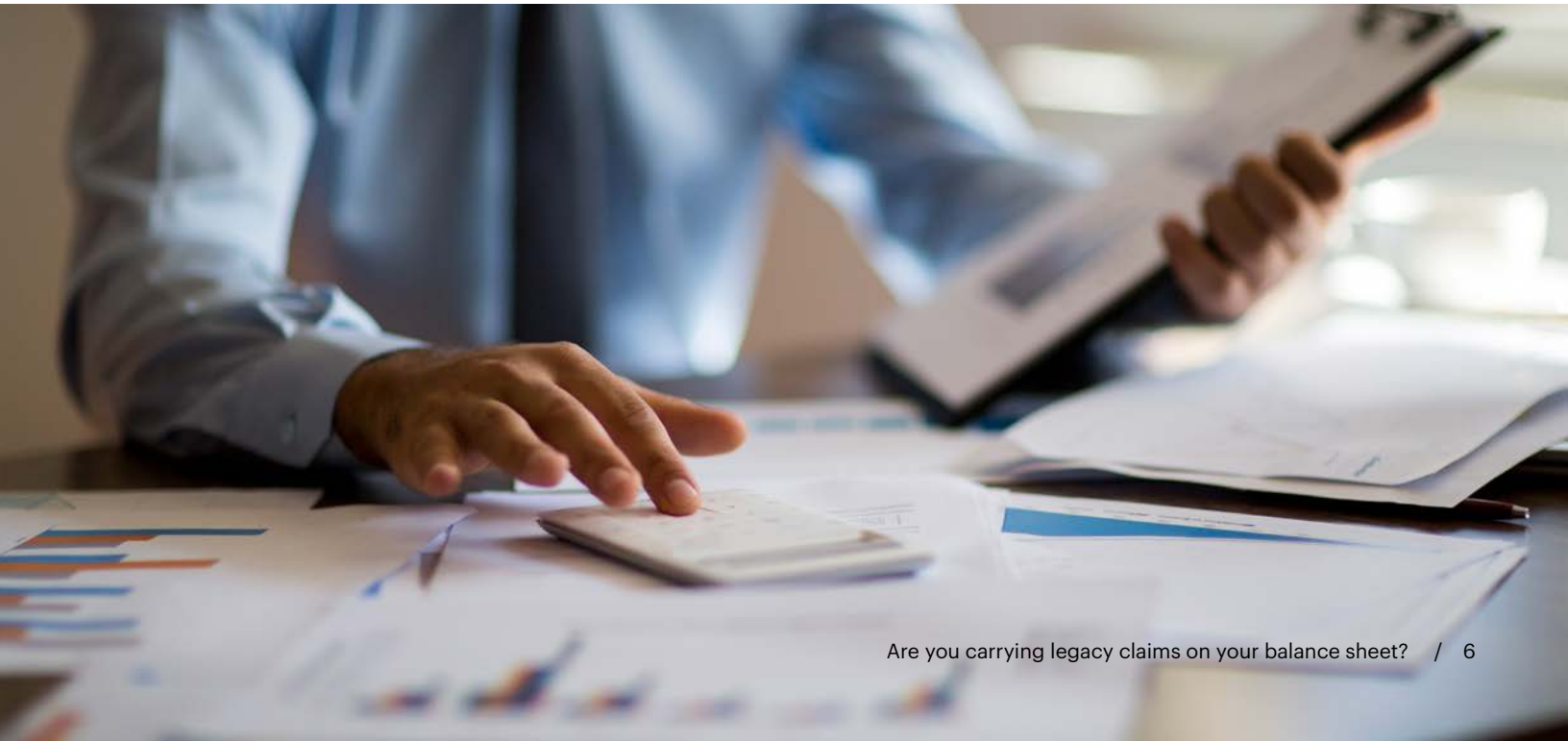
Calendar year	12 month CY Pd
2019	32,957,046
2020	36,342,173
2021	34,768,647
2022	36,781,451

Some evidence of increasing payments.

Diagnostics — Paid loss severity

Accident year	3m	15m	27m	39m	51m	63m
2014	3,190	4,678	6,827	9,307	9,819	10,635
2015	3,349	4,912	7,169	8,212	8,998	9,865
2016	3,517	5,158	7,349	8,828	9,492	9,925
2017	3,692	4,834	7,609	8,926	9,620	10,092
2018	3,420	5,345	8,627	9,977	11,049	**11,640**
2019	3,695	5,394	8,943	10,770	**11,609**	
2020	3,621	7,726	11,780	**14,037**		
2021	5,453	8,147	**12,125**			
2022	5,396	**9,737**				
2023	**5,807**					

Paid loss severity is increasing (total paid/cumulative closed claims).



Ultimate loss selections

Accident year	Reported LDM	Paid LDM	Reported B-F	Paid B-F	Avg IBNR	Avg unpaid	Selected ultimate loss
2014	16,846,126	16,613,692	17,051,906	16,974,741	17,056,871	16,967,354	16,729,909
2015	17,177,587	17,042,995	17,688,441	17,649,039	17,097,774	17,075,996	17,110,291
2016	16,198,833	16,313,249	16,820,009	17,334,841	16,009,516	16,002,926	16,256,041
2017	18,561,088	18,604,111	19,286,610	20,011,020	18,462,875	18,316,325	18,582,600
2018	20,103,070	20,349,994	21,051,083	22,409,905	19,863,539	19,883,733	20,226,532
2019	24,601,782	24,750,955	25,696,754	27,410,380	24,162,375	24,081,472	24,676,369
2020	27,082,621	28,044,933	27,785,606	29,785,111	27,351,240	27,306,192	27,328,716
2021	**33,715,644**	**35,429,453**	**33,770,814**	**35,165,956**	**33,554,756**	**32,374,401**	32,964,578
2022	**31,413,357**	**32,543,505**	**32,066,131**	**33,646,585**	**30,109,072**	**27,839,630**	28,974,351
2023	**39,884,781**	**45,127,622**	**38,652,478**	**39,321,363**	**36,611,064**	**36,029,873**	36,611,064

- Years 2021 and forward seem to be impacted by the increase in average case reserve. (Dark grey boxes)
- Paid Loss Development Method (LDM) and paid loss BF are the highest methods these years — accelerated payments likely biasing ultimate loss estimates
- While reported LDM and BF are lower than paid methods, they may be biased based on the increase in avg case per open
- Average IBNR method relies on reported losses so it may be biased as well (Purple boxes)
- Average unpaid method attempts to adjust for these potential biases but it needs a reliable ultimate claim count estimate. (Purple boxes)

Post ultimate loss selection diagnostics — Unpaid loss per unpaid claim

Accident year	3m	15m	27m	39m	51m	63m
2014	9,516	24,719	43,821	62,854	83,290	77,216
2015	9,992	25,955	46,012	76,410	108,307	87,712
2016	10,492	27,253	48,458	66,860	85,709	102,762
2017	11,016	31,468	52,045	66,896	86,762	114,359
2018	13,168	42,485	62,805	81,781	82,356	88,109
2019	13,903	42,829	57,666	64,876	80,479	
2020	17,479	46,727	65,512	73,626		
2021	17,110	42,807	63,976			
2022	18,597	42,753				
2023	16,000					

Points on the diagonal look reasonable.

Post ultimate loss selection diagnostics — Average IBNR per unpaid claim

Accident year	3m	15m	27m	39m	51m	63m
2014	9,153	13,725	25,727	30,586	48,758	38,501
2015	9,610	14,411	27,013	47,864	63,151	21,813
2016	10,091	15,131	23,120	35,717	33,686	52,377
2017	10,595	15,965	26,313	26,999	38,179	70,925
2018	12,429	23,434	34,612	41,773	27,657	29,285
2019	13,131	25,049	25,179	25,578	39,521	
2020	16,555	27,999	27,448	27,974		
2021	15,779	18,568	19,224			
2022	17,151	21,600				
2023	14,827					

Diagonal values should look low (trading case for IBNR).

Summary

- Claim closure projects will disrupt actuarial patterns or make prior patterns not relevant for projecting the current environment
- As actuaries, we can adjust for these potential changes
- Review the data diagnostics
- Add appropriate methods if necessary
- Make selections and validate them

As actuaries, if we know any client actions are impacting our actuarial patterns, we have to assess them and react, if needed.

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