

Increasing Inflation on Liability Insurance – Impact as of Year-End 2024

by

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Executive Summary

As a follow-up to previous studies on increasing inflation, this report estimates the amount of losses from 2015 to 2024 that increasing inflation has added to insurance liability:

Two have been studied previously:

- Personal Auto Liability. Increasing inflation propelled losses higher by between \$91.6 billion and \$102.3 billion, or between 8.7% and 9.7% of booked loss and DCC. This is an increase from our prior study, which put the range between \$76.3 billion and \$81.3 billion.
- Commercial Auto Liability. Increasing inflation propelled losses and direct containment costs higher by \$52.0 billion to \$70.8 billion, or between 22.6% and 30.8% of booked loss and DCC. This is an increase from our prior study, which put the range between \$42.7 billion and \$55.8 billion.

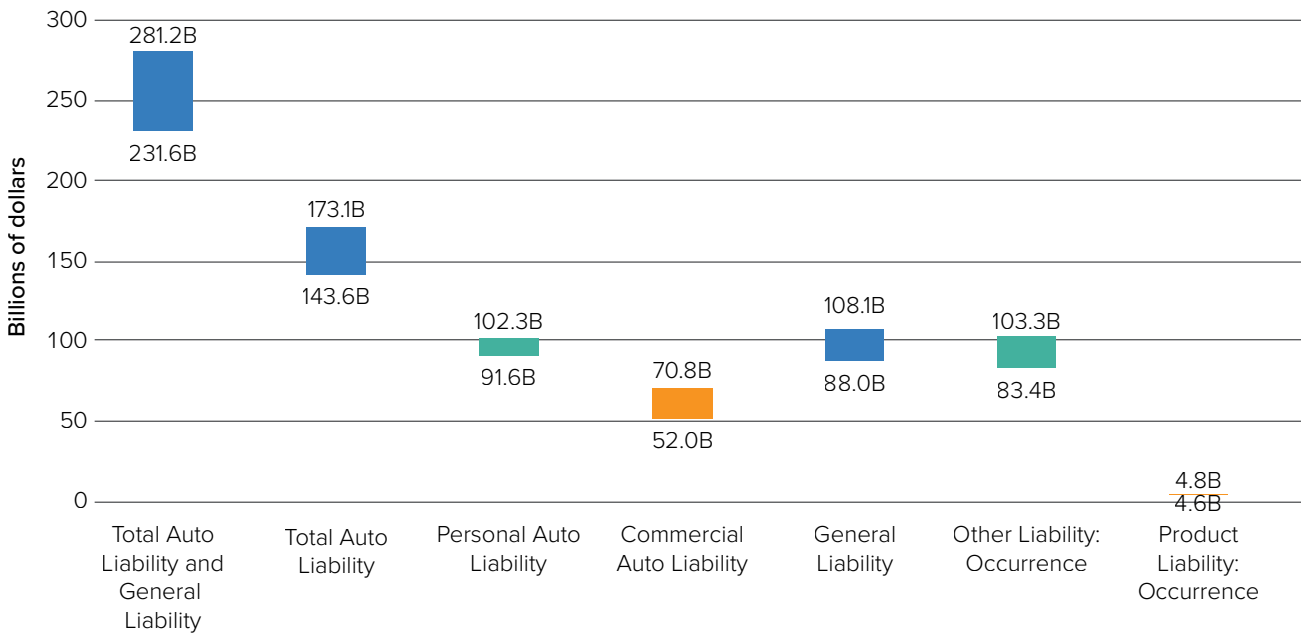
The 10-year estimates continue to rise because recent years replace older ones. Recent years bear the cumulative impact of more than a decade of increasing inflation.

We analyzed four additional lines:

- Other Liability – Occurrence. Increasing inflation added between \$83.4 billion and \$103.3 billion, or between 27.4% and 34.0% of booked loss and DCC.
- Product Liability – Occurrence. Increasing inflation added between \$4.6 billion and \$4.8 billion to loss and DCC, or between 27.1% and 28.0% of loss and DCC.
- Other Liability – Claims-Made and Product Liability – Claims Made. We make no estimate on the impact of increasing inflation. The tools we use provide a mathematical estimate, but the size of and lack of homogeneity within these two lines prevent us from developing a credible estimate. Industry leaders indicate there has been significant inflation.

The impact of increasing inflation on the four lines quantified is between \$231.6 billion and \$281.2 billion. These estimates and their ranges are reflected in Figure 1.

Figure 1: Increasing Inflation Ranges



Source: Analysis by Insurance Information Institute

Figure 2 assembles the information in a different format.

Figure 2: 10-Year Estimates of Impact of Increasing Inflation

Line of Business	Estimated Impact (Low Estimate)		Estimated Impact (High Estimate)	
	Billions of Dollars	% of 10-Yr Booked Losses as of 12/31/2024	Billions of Dollars	% of 10-Yr Booked Losses as of 12/31/2024
Personal Auto Liability	91.6	-8.7%	102.3	-9.7%
Commercial Auto Liability	52.0	-22.6%	70.8	-30.8%
Total: Auto Liability	143.6	-11.2%	173.1	-13.5%
Other Liability: Occurrence	83.4	-27.4%	103.3	-34.0%
Products Liability: Occurrence	4.6	-27.1%	4.8	-28.0%
Total: General Liability	88.0	-27.4%	108.1	-33.6%
Total Auto and General Liability	231.6	-14.4%	281.2	-17.5%

Other Liability: Claims-Made*

Products Liability: Claims-Made*

* No conclusions reached on the impact of increasing inflation

Source: Analysis by Insurance Information Institute

Although the impact of increasing inflation varies by line of business, there are common threads:

- Loss development factors (LDFs) began increasing in the period of 2008 to 2018.
- LDFs fell during the pandemic years but have returned to pre-pandemic levels.
- Claim severity is the primary driver of increasing inflation. Long-term frequency is falling in the lines studied, while severity is increasing.

Prior Research

Over the past five years, the Insurance Information Institute, usually in conjunction with the Casualty Actuarial Society, has conducted a series of studies using actuarial techniques on insurance department Annual Statement data to detect and analyze inflation in liability lines of business. Earlier papers focused on detecting “excessive inflation in claims,” known among insurers as social inflation.

The earliest work was published in 2022, focusing on the years 2019 and earlier. Their methodology examined the increase over time of the loss development factors (LDFs) in claim triangles. If inflation is steady, LDFs remain approximately the same. Consistent increases in LDFs are a sign of increasing inflation.

The methodology can detect the presence of inflation, but it cannot detect its source.

In the years immediately preceding 2021, economic inflation, characterized by the Consumer Price Index – All Urban Consumers (CPI-U), was consistently low. Researchers Lynch and Moore concluded that increases in loss development factors during that period were driven by social inflation.

As Lynch and Moore documented, a number of commentators have tried to determine what might be causing social inflation:

- Increasing litigiousness and higher jury awards.
- Rollbacks and weakening of previous attempts at tort reform.
- Increased attorney advertising.
- The emergence and growth of third-party litigation financing.
- The proliferation of class-action lawsuits.

The CPI-U rose to its highest level in 30 years from 2021 to 2023. As such, the methodology cannot determine whether social or economic inflation causes increasing LDFs. Work has focused instead on detecting increasing inflation – the impact of all forms of inflation on insurance losses.

The CAS/Triple-I work had focused on auto liability lines of business – commercial auto in earlier studies and commercial and personal auto in the later studies. The work consistently found evidence of inflation, with commercial auto sustaining higher inflation rates than personal auto.¹

The Doctors Company, a medical malpractice insurer, in 2023 published research in which Lynch and Moore used the same general methodology to conclude there was in medical malpractice claims-made “evidence of social inflation. . . but . . . not as dramatic as in other lines of business.” A follow-up study estimated that increasing economic and social inflation added in the decade ending in 2024 \$4 billion in insured losses and expenses to physician-focused medical malpractice insurers.²

Methodology

Although this paper deals with more lines of business than before, the approach remains the same. We use nominal Gross Domestic Product to normalize insurance premiums and losses by year. An increase in either as a percentage of GDP is an indication that it is growing faster than exposures and inflation.

We also use Annual Statement Schedule P data combined with GDP data to examine changes in frequency and severity. Frequency is estimated as the number of reported claims as a percentage of nominal GDP. Severity is total losses divided by the number of claims. Increasing severity is a sign of inflationary pressure.

Then we look at loss development factors to determine inflationary trends over time. Specifically, we try to determine whether loss development factors change consistently over time.

To simplify the task, we multiply the 12-24, 24-36, 36-48 and 48-60 link ratios of each calendar year to create a calendar year 12-60 development factor, abbreviated as CYR 12-60 LDF. Increasing CYR 12-60 LDFs are a sign of increasing inflation.

Next, we perform an actual vs. expected analysis. If actual losses exceed expectations, it may be a sign of increasing inflation.

We compare actual booked losses with what losses would have been had LDFs remained level. This comprises an estimate of increasing inflation.

An annual impact of increasing inflation is estimated by calculating for each accident year the annual compounded rate that constitutes the difference between the actual losses and what losses would have been.

For commercial and personal auto, this study updates prior work. The base year for GDP trends remains 2012. The base year for long-term trend and link ratios remains 2004. The 20-year roll-forward analysis now begins in 2005, and the rolling-forward 10-year time period begins 2015. This analysis expands to examine four additional lines of business:

- Other Liability – Occurrence.
- Other Liability – Claims-Made.
- Product Liability – Occurrence.
- Product Liability – Claims-Made.

1. Jim Lynch and Dave Moore, [“Social Inflation and Loss Development,”](#) Casualty Actuarial Society and Insurance Information Institute, 2022; Jim Lynch and Dave Moore, [“Social Inflation and Loss Development – An Update,”](#) Casualty Actuarial Society and Insurance Information Institute, 2023; Jim Lynch, Dave Moore, and Dale Porfilio, [“Impact of Increasing Inflation on Personal and Commercial Auto Liability Insurance,”](#) Insurance Information Institute, 2023; Jim Lynch, Dave Moore, William Nibbelin and Dale Porfilio, [“Increasing Inflation on Auto Liability Insurance – Impact as of Year-end 2023,”](#) Casualty Actuarial Society and Insurance Information Institute, 2024.

2. Jim Lynch and Dave Moore, [“Medical Malpractice Claims-Made Social Inflation and Loss Development Report,”](#) The Doctors Company, 2023; Jim Lynch and Dave Moore, [“Nuclear Verdicts and Rising Costs: How Inflation is Impacting Medical Malpractice Claims,”](#) The Doctors Company, 2025.

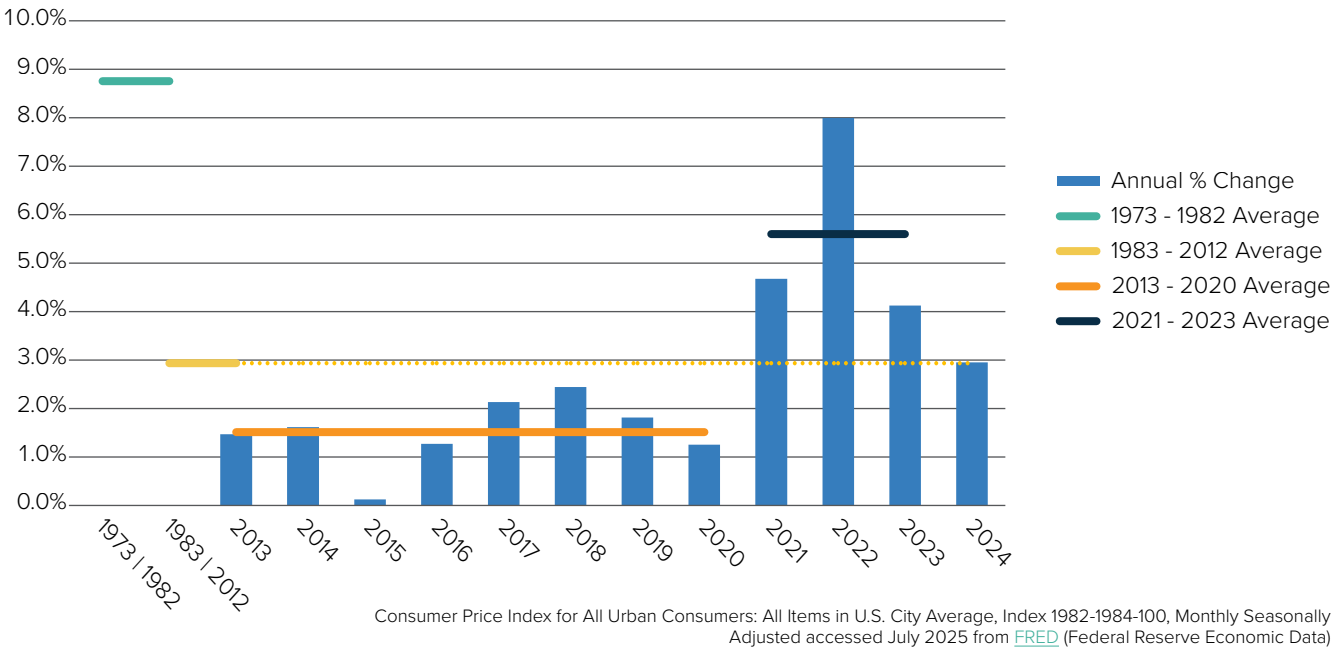
Overall Economic Inflation Trends

Figure 3 shows the average annual change in the CPI-All Urban from 2013 through 2024, with additional information on long-term trends.

The index rose 3.0% in 2024. This is lower than the previous three years – which averaged 5.6% – but higher than the average from 2013 to 2020 (1.5%). It is on par with the average rate from 1983 to 2012. (In the first six months of 2025, the index grew a little more slowly, 2.6% annualized.)

Research by the Triple-I Economics Team reinforces the lessening impact of inflation on insurance portfolios. The team estimated that underlying growth – a measure of exposure – for personal auto fell slightly (-0.2%) following a 9.3% increase in 2023. Commercial auto underlying growth rose 1.6%, considerably less than in 2023, 21.9%.

Figure 3: Annual Change in CPI-All Urban – Annual Average



Commercial Auto Liability Trends

This section looks for trends in commercial auto liability premiums, losses and loss development. We reach conclusions about the inflationary environment insurers of the line face.

Premium and Losses

Figure 4 shows net earned premiums and net ultimate losses (including DCC) by accident year for commercial auto liability insurance per millions of dollars in GDP.

The orange line represents premiums. In 2024 net earned premium per \$1 million GDP increased for the 12th consecutive year, indicating rates have been rising in that line for more than a decade. They had been declining for the eight previous years. Rates in 2024 were the highest in the study, 52.6% higher than in 2012.

Losses follow a similar pattern.

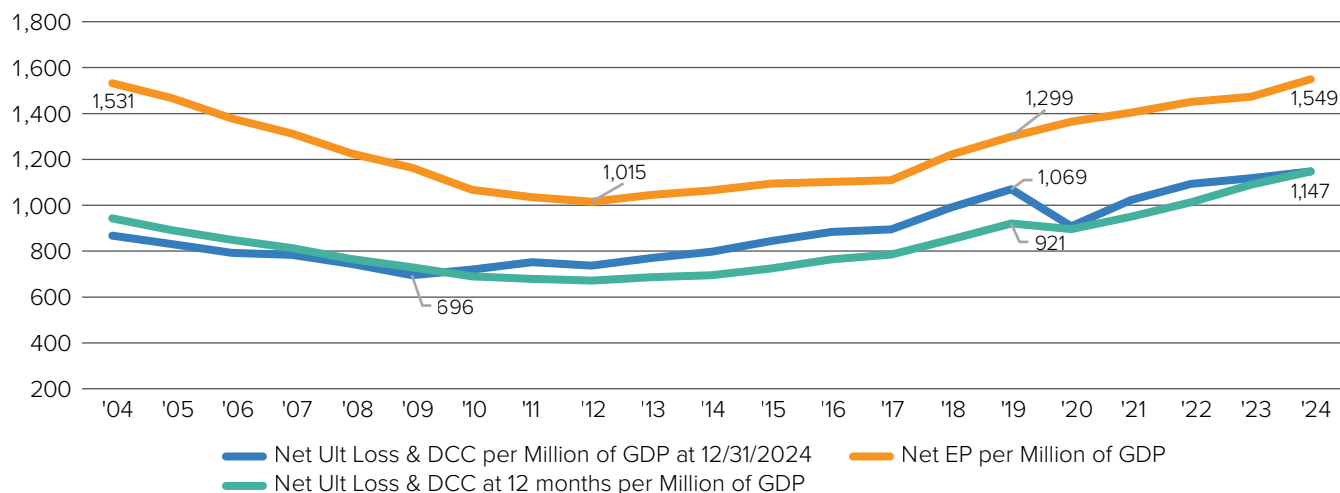
Losses per \$1 million GDP at first evaluation – the green line – were (as with premiums) lowest in 2012. 2024 losses were 70.8% higher than the 2012 low. They were 21.7% higher than at the beginning of the study period.

Losses at the most recent evaluation – the blue line – were lowest in 2009. They rose steadily through 2019. They fell in 2020; the pandemic reduced miles driven. They began rising again the next year. Losses in 2022 passed the pre-pandemic peak. In 2024 losses were 64.9% higher than the 2009 low. They were 32.2% higher than at the beginning of the study period.

Until 2009 commercial auto ultimate losses were falling relative to GDP. Since then, the line has been characterized by relentless increases in losses, which since 2012 have been passed along to customers.

Frequency and Severity

Figure 4: Net Earned Premium (EP) and Ultimate Loss & DCC per Million of GDP by Accident Year - PC Industry



Source: NAIC P&C Industry Commercial Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from FRED (Federal Reserve Economic Data)

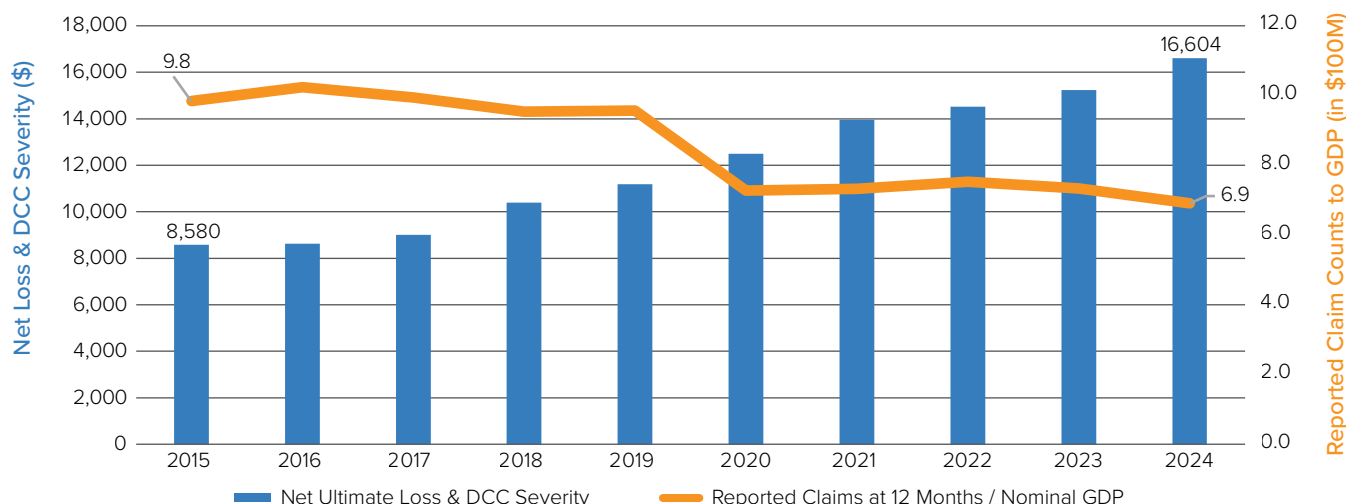
For losses to inexorably increase, either the number of claims must be rising, the size of the average claim must be rising, or both. Increasing inflation, in a normal scenario, does not increase the number of claims. Of course, it has a significant impact on claim size.

Figure 5 shows the frequency of reported claims per \$100 million of GDP and the severity of the average reported claim. Frequency has been declining, particularly since the start of the pandemic. Frequency in 2024 was 6.9 claims per \$100 million GDP, vs. 9.8 per \$100 million – the weighted average of the five years before the start of the pandemic. Commercial auto losses – and premiums – would be significantly higher if frequency had not fallen so dramatically.

Claim severity has risen relentlessly – 93.5% from 2015 to 2024, a compound annual growth rate of 7.6%. By comparison, the CPI-All Urban has risen 3.2% annually over the same period.

The results here are strong evidence that increasing inflation is the critical driver of increases in commercial auto liability losses and premiums.

Figure 5: Reported Claim Frequency and Net Ultimate Loss & DCC Severity by Accident Year - PC Industry



Source: NAIC P&C Industry Commercial Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from FRED (Federal Reserve Economic Data);

Loss Development

This section looks for trends in inflation by examining triangles of LDFs. When inflation is stable, LDFs also tend to be stable. Rising LDFs can be a sign that insurers face increasing inflation.

Figure 6 shows net paid loss and DCC LDFs for 2003 and all subsequent accident years. The table is color-coded. Each shaded cell has an LDF that is higher than its immediate predecessor – the cell immediately above it. The preponderance of shaded cells is an indicator of sustained periods of increasing inflation.

In a reversal of prior patterns, most of the calendar year 2024 LDFs are lower than their predecessors. Only the 24:36 and the 108:120 factors are higher.

The factors between 12 and 60 months are accumulated at the far right of the table in CYR 12-60 LDFs, a metric that accentuates increases and decreases in factors. The 2024 CYR 12-60 LDF is 6.389, a decrease from a year earlier. With the exception of the pandemic years of 2020 and 2021, this is the first decrease in the factor since 2009.

Figure 6: Net Paid Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	2.117	1.454	1.232	1.116	1.050	1.020	1.010	1.005	1.005	
2004	2.041	1.442	1.236	1.115	1.049	1.021	1.010	1.006	1.002	
2005	2.140	1.439	1.226	1.105	1.046	1.019	1.010	1.003	1.004	
2006	2.064	1.444	1.213	1.107	1.043	1.023	1.011	1.005	1.004	
2007	2.099	1.424	1.222	1.106	1.049	1.022	1.007	1.006	1.003	4.097
2008	2.048	1.433	1.228	1.111	1.049	1.022	1.010	1.006	1.002	4.142
2009	2.081	1.440	1.238	1.117	1.053	1.022	1.012	1.006	1.005	3.910
2010	2.125	1.450	1.232	1.120	1.051	1.025	1.011	1.005	1.004	4.033
2011	2.129	1.440	1.242	1.128	1.057	1.023	1.012	1.007	1.002	4.157
2012	2.155	1.454	1.249	1.126	1.051	1.025	1.012	1.004	1.002	4.246
2013	2.168	1.465	1.270	1.132	1.056	1.029	1.008	1.004	1.004	4.273
2014	2.173	1.507	1.269	1.145	1.057	1.019	1.009	1.009	1.005	4.384
2015	2.247	1.505	1.288	1.135	1.048	1.022	1.020	1.009	1.007	4.484
2016	2.286	1.517	1.285	1.114	1.053	1.040	1.021	1.009		4.839
2017	2.293	1.510	1.238	1.124	1.082	1.043	1.020			4.942
2018	2.359	1.492	1.245	1.169	1.083	1.042				5.132
2019	2.404	1.479	1.316	1.178	1.081					5.195
2020	2.347	1.593	1.320	1.162						4.951
2021	2.581	1.586	1.314							4.856
2022	2.632	1.601								6.320
2023	2.615									6.490
2024										6.389

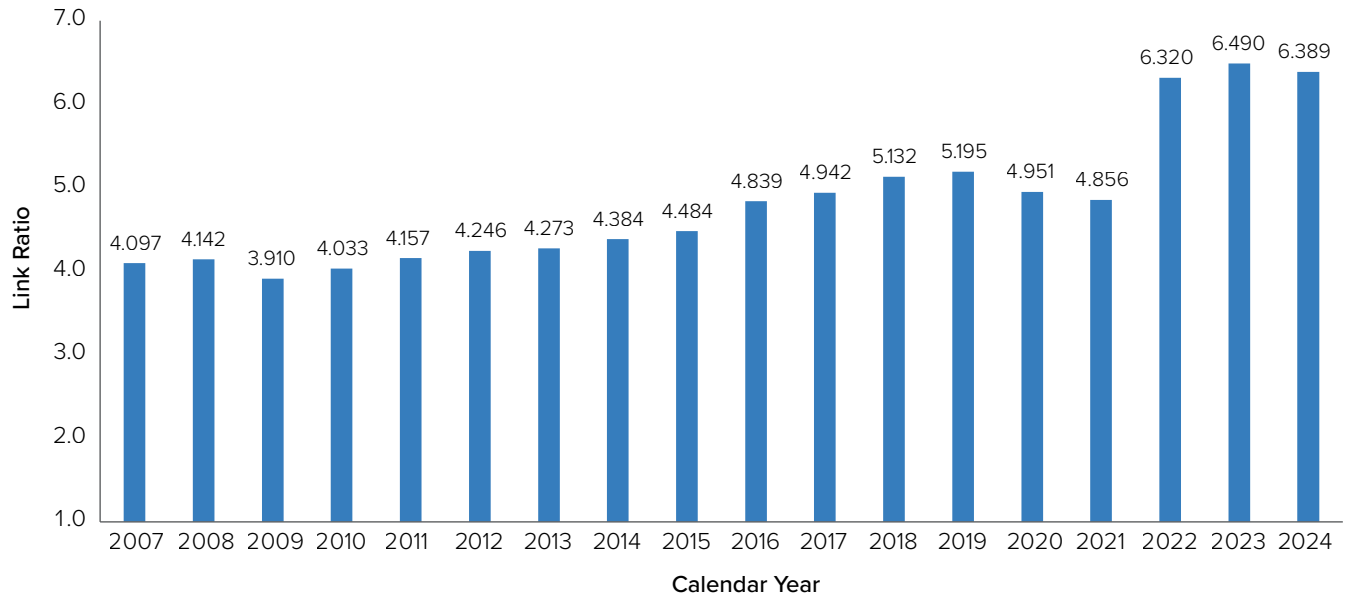
Source: NAIC P&C Industry Commercial Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figures 7 and 8 compare CYR 12-60 LDFs across time. Figure 7 contains paid factors, and Figure 8 contains case-incurred factors. For both, the 2024 factor is lower than the 2023 factor, though still higher than the 2022 factor and any other factor that preceded it.

This might be evidence that inflation is leveling off. If so, the leveling is occurring with an inflation rate considerably higher than when inflation began to increase. The 2024 metric remains well above 6.000, considerably higher than the factor's lowest recording, 3.910.

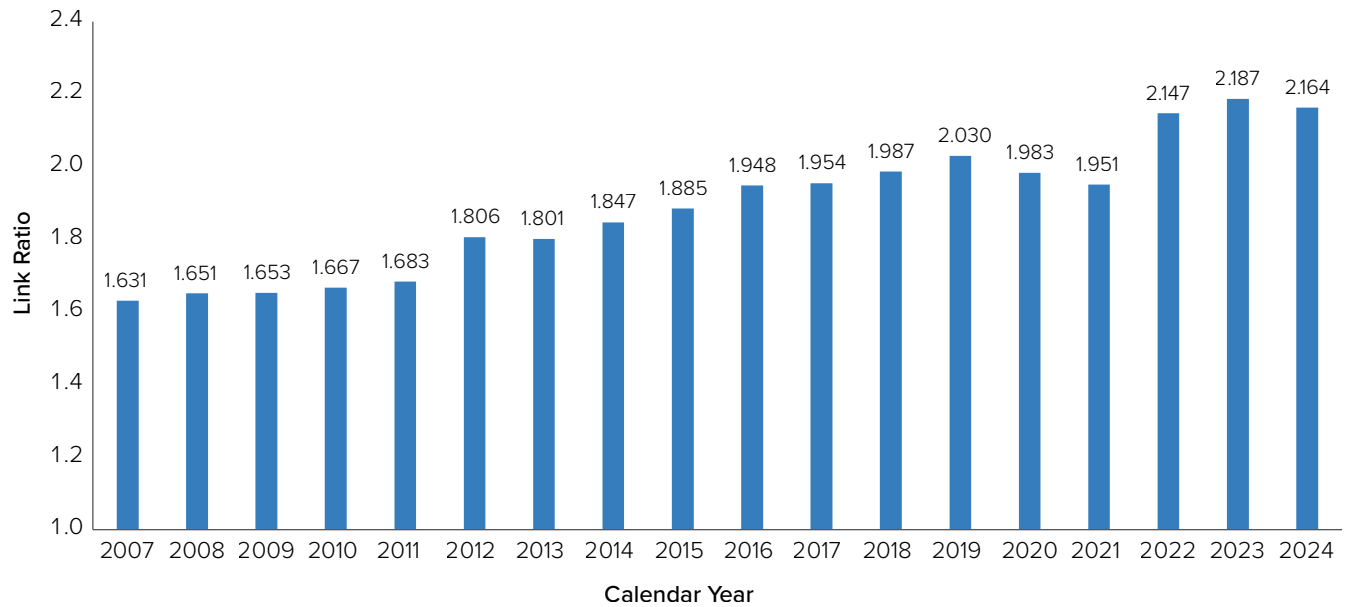
The lower factor could also be the result of changing development patterns, such as a reversal of patterns set in place by a delay then re-acceleration of court cases brought on by the pandemic.

Figure 7: Net Paid Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Commercial Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 8: Net Case-Incurred Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Commercial Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 9 shows the results of the expected-vs.-actual analysis. Actual loss emergence in 2024 was unfavorable by \$1.6 billion on a paid basis and \$829 million on a case-incurred basis. These figures were improvements compared with 2022 and 2022, when paid emergence exceeded \$3 billion unfavorable and case-incurred emergence exceeded \$1.5 billion unfavorable. The year, however, was third worst in the decade by a considerable margin. Paid emergence was more than 70% higher than fourth-worst 2016; case-incurred emergence was more than 20% higher.

Figure 9: Actual vs Expected Net Loss & DCC Link Ratio - PC Industry (\$ millions)

Calendar Year	Paid Emergence on Prior Accident Years through 120 Months				Case-Incurred Emergence on Prior Accident Years through 120 Months			
	Expected	Actual	Variance	% Variance	Expected	Actual	Variance	% Variance
2015	9,320	9,707	386	4.1%	5,707	6,121	414	7.2%
2016	9,924	10,856	932	9.4%	6,253	6,933	680	10.9%
2017	10,973	11,603	630	5.7%	7,123	7,535	412	5.8%
2018	12,064	12,898	834	6.9%	7,824	8,273	449	5.7%
2019	13,539	14,022	483	3.6%	8,787	9,356	569	6.5%
2020	14,870	14,004	-866	-5.8%	9,956	9,803	-154	-1.5%
2021	14,540	13,820	-720	-4.9%	9,802	9,429	-373	-3.8%
2022	14,406	18,131	3,725	25.9%	10,484	12,142	1,658	15.8%
2023	17,341	20,759	3,418	19.7%	12,379	14,130	1,751	14.1%
2024	21,437	23,043	1,607	7.5%	14,935	15,764	829	5.5%
2015 to 2024	138,414	148,842	10,429	7.5%	93,251	99,486	6,235	6.7%
2015 to 2019	55,820	59,085	3,265	5.8%	35,694	38,219	2,524	7.1%
2020 to 2024	82,593	89,757	7,164	8.7%	57,556	61,267	3,711	6.4%

Source: Analysis by Insurance Information Institute

Figure 10 estimates the impact of increasing inflation. As in prior works, we reason that the impact of increasing inflation began around 2008. We estimate what ultimate losses would have been had the development patterns of 2008 remained in place. Comparing that with booked losses yields the impact of increasing inflation.

Figure 10: Estimated Impact of Increasing Inflation (\$ millions)

	A	B	C	D = A*(Alternative LDF)	E = B*(Alternative LDF)	F = D - C	G = E - C
	Per 12/31/YYYY Schedule P		Per 12/31/2024 Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDFs		Variance to Booked	
Year	Net Paid Loss & DCC @ 12 months	Net Case Incurred Loss & DCC @ 12 months	Net Ultimate Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)
2015	2,785	7,493	15,448	12,713	12,593	-2,735	-2,855
2016	2,910	8,068	16,613	13,284	13,559	-3,329	-3,054
2017	3,069	8,453	17,560	14,011	14,205	-3,549	-3,355
2018	3,371	9,393	20,477	15,390	15,785	-5,088	-4,692
2019	3,552	10,370	23,033	16,217	17,427	-6,816	-5,605
2020	2,904	8,778	19,404	13,256	14,753	-6,148	-4,651
2021	3,372	10,963	24,214	15,393	18,423	-8,821	-5,791
2022	4,025	12,841	28,435	18,374	21,580	-10,061	-6,855
2023	4,376	14,185	30,992	19,978	23,839	-11,014	-7,153
2024	4,432	15,167	33,475	20,234	25,489	-13,242	-7,987
Total	34,797	105,710	229,652	158,849	177,654	-70,802	-51,998

% Variance -30.8% -22.6%

Source: Analysis by Insurance Information Institute

Column F shows that, using paid LDFs, we estimate that losses from 2015 to 2024 would have been \$70.8 billion less than what has been booked, 30.8% of losses in the period. The comparable figures for case-incurred estimates are in Column G, \$52.0 billion and 22.6% of booked losses.

These figures are higher than estimates made a year ago for the 2014-2023 period: \$55.8 billion (27.0%) from paid estimates and \$42.7 billion (20.7%) from case-incurred estimates.

The increase is attributed to:

- Adverse development of \$3.8 billion on prior year booked losses during 2024, the second consecutive year adverse development exceeded \$3 billion.
- Replacing the oldest year (2014) with the newest (2024). More recent years bear an additional decade of accumulated inflation.

Figure 11 calculates the implied average annual impact of increasing inflation, the compounded annual growth rate of inflationary trends over the latest 10 years. Using paid development factors, the estimate is 3.1% annually, slightly higher than the estimate from a year ago, 2.9%. Using case-incurred data, the average annual impact remained 2.2%.

Figure 11: Implied Average Annual Impact of Increasing Inflation (\$ millions)

	A	B		C	D = (A/B) ^ (1/(Year-2008))-1		E = (A/C) ^ (1/(Year-2008))-1	
	Per 12/31/YYYY Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDF			Implied Average Annual Impact of Increasing Inflation			
Year	Net Paid Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)		3yr Weighted Average as of 12/31/2008 (Paid)		3yr Weighted Average as of 12/31/2008 (Case Incurred)	
2015	15,448	12,713	12,593		2.8%		3.0%	
2016	16,613	13,284	13,559		2.8%		2.6%	
2017	17,560	14,011	14,205		2.5%		2.4%	
2018	20,477	15,390	15,785		2.9%		2.6%	
2019	23,033	16,217	17,427		3.2%		2.6%	
2020	19,404	13,256	14,753		3.2%		2.3%	
2021	24,214	15,393	18,423		3.5%		2.1%	
2022	28,435	18,374	21,580		3.2%		2.0%	
2023	30,992	19,978	23,839		3.0%		1.8%	
2024	33,475	20,234	25,489		3.2%		1.7%	
Total	229,652	158,849	177,654		3.1%		2.2%	

Source: Analysis by Insurance Information Institute

Personal Auto Liability Trends

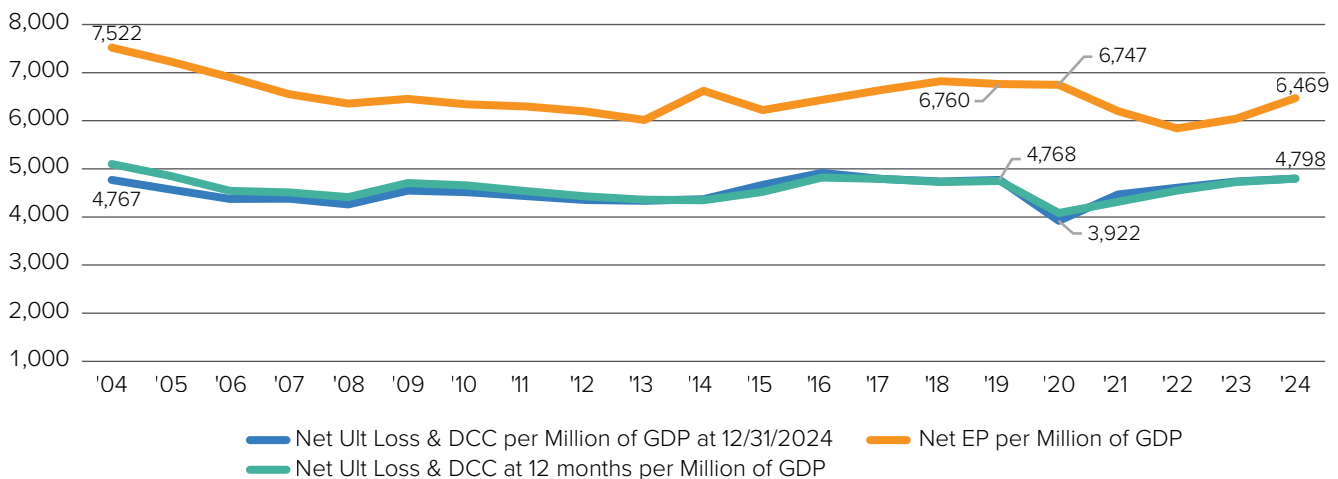
Premium and Losses

This section looks for trends in personal auto liability premiums, losses and loss development. We reach conclusions about the inflationary environment insurers of the line face.

Figure 12 shows that net earned premiums, normalized by Gross Domestic Product, rose in both 2023 and 2024. NEP per \$1 million GDP rose 7.1% in 2024 but remains 4.3% lower than in 2019.

The rise in premium from pandemic-era lows mimics the behavior of losses, with a lag of a year or two. Losses at latest evaluation fell in Accident Year 2020 and have risen since. They are barely (0.6%) higher than their 2019 level.

Figure 12: Net Earned Premium (EP) and Ultimate Loss & DCC per Million of GDP by Accident Year-PC Industry



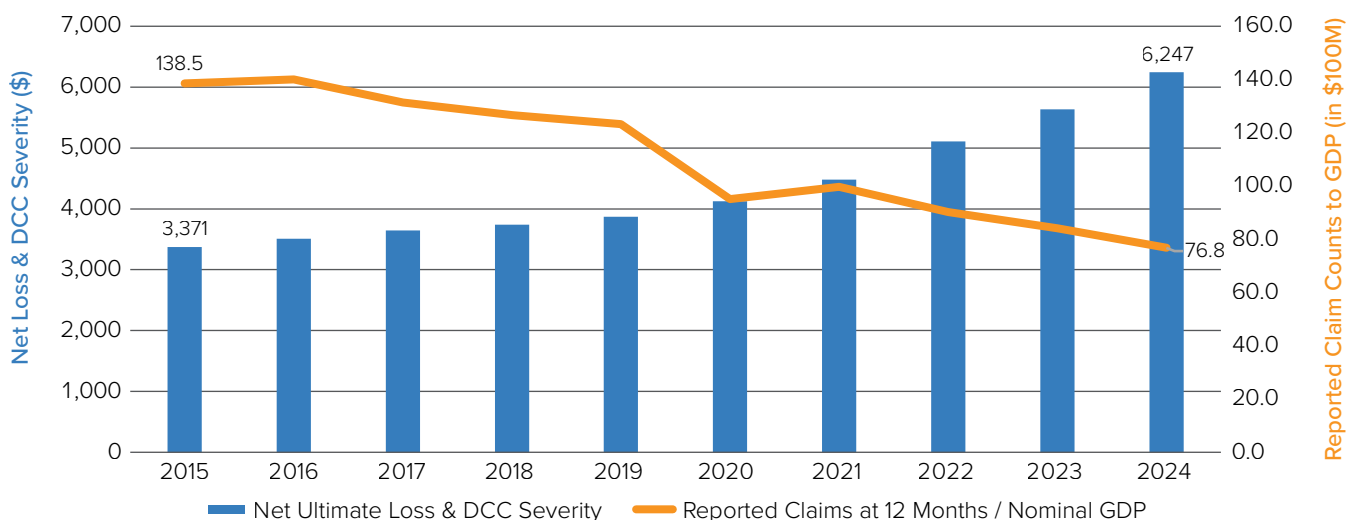
Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Frequency and Severity

Figure 13 shows lower frequency and higher severity across time, similar to the experience of commercial auto liability. Frequency declined in 2022, 2023 and 2024. It remains lower than pre-pandemic frequency. Frequency fell 44.5% between 2015 and 2024.

Severity is accelerating. It grew at a compound annualized growth rate of 7.1% from 2015 to 2024. In the first part of that interval (2015 to 2019) growth averaged 3.5% per year, compounded. Since then, it averaged 10.9% annually, compounded.

Figure 13: Reported Claim Frequency and Net Ultimate Loss & DCC Severity by Accident Year - PC Industry



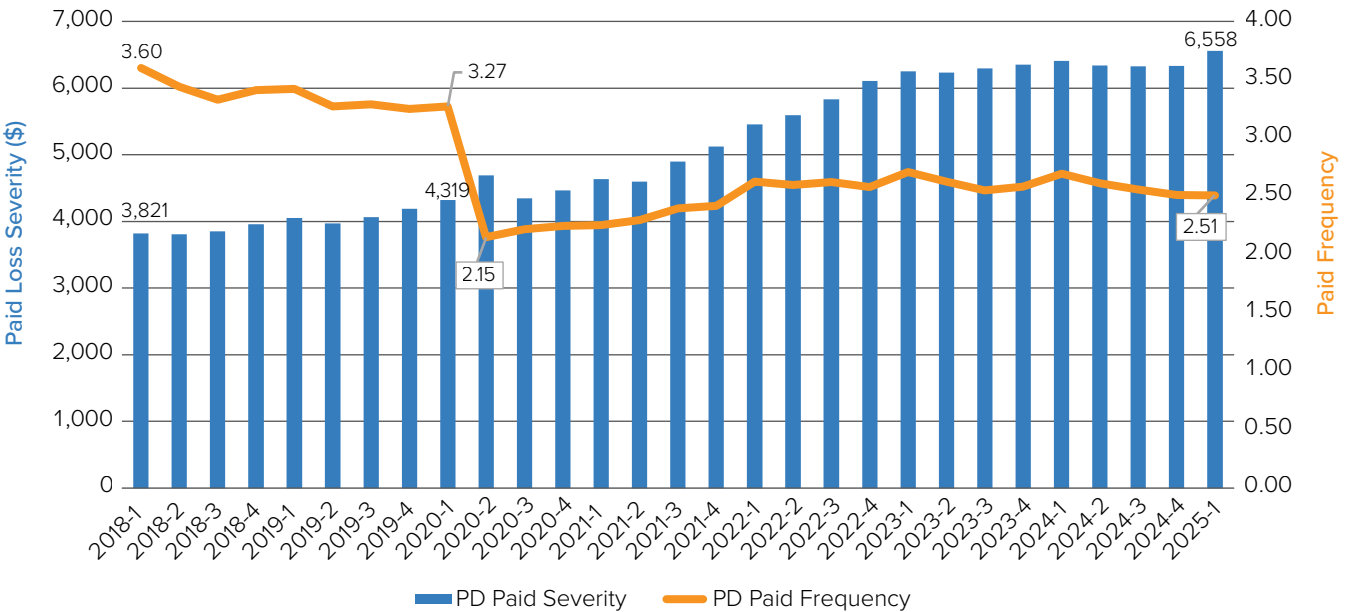
Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Fast Track data collected by Verisk show a more complicated set of frequency/severity patterns. Property damage paid claims show modest increases in frequency after an initial steep decrease at the outset of the pandemic and consistent increases in severity since 2018. Bodily injury paid claim frequency has been steadily rising since the early-pandemic drop-off. BI severity follows the same general trend as PD severity.

Here we compare frequency and severity for two time periods from Q1 2020 to Q1 2023 and from Q1 2023 to Q1 2025.

For property damage claims, (Figure 14) Fast Track the annualized growth in severity slowed to 2.4% in the more recent period vs. 13.1% in the earlier period. The data also showed frequency falling more slowly, -3.8% annualized vs. -6.1% in the earlier period.

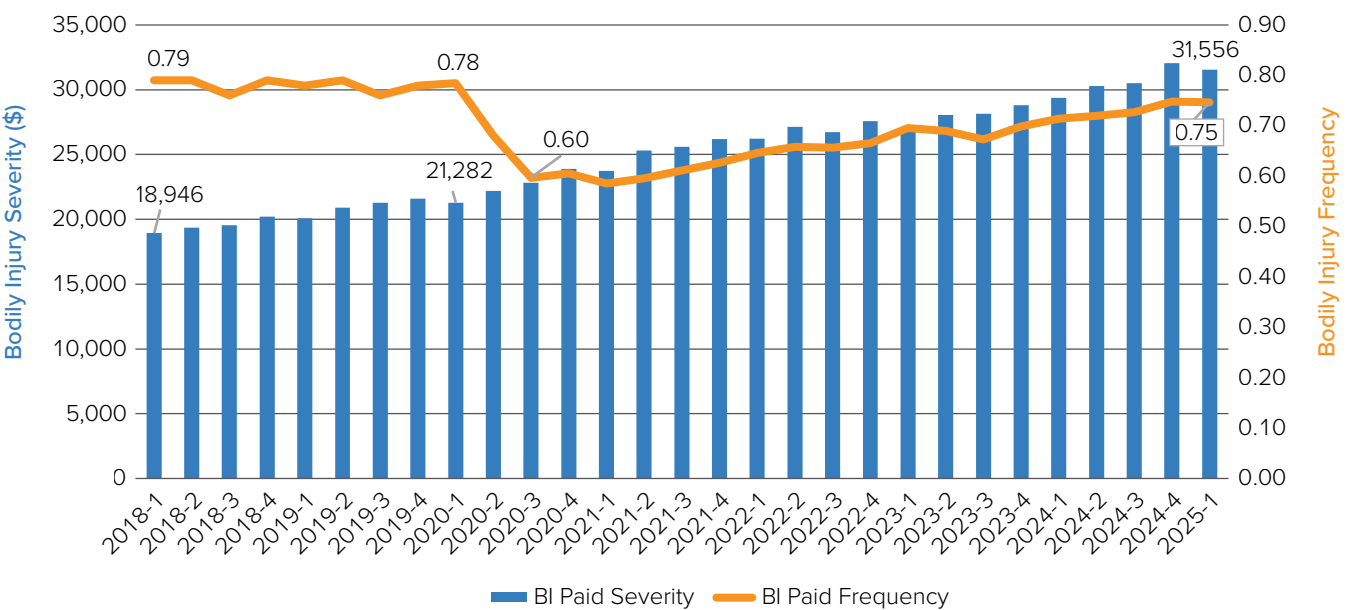
Figure 14: Frequency and Severity, Property Damage (PD) Coverage



Source: Verisk ISO Fast Track frequency and severity quarterly data accessed July 2025

For bodily injury claims (Figure 15), severity climbed at about the same annualized rate in both periods – 7.9% in the latter vs. 8.4% in the earlier period. Frequency was falling in the earlier period, -3.9% but rising 3.6% in the more recent period. Frequency is close to pre-pandemic levels. Severity is 48% higher.

Figure 15: Frequency and Severity, Bodily Injury (BI) Coverage



Source: Verisk ISO Fast Track frequency and severity quarterly data accessed July 2025

Loss Development

This section looks for trends in inflation by examining triangles of LDFs. When inflation is stable, LDFs also tend to be stable. Rising LDFs can be a sign that insurers face increasing inflation.

Figures 16 and 17 show claims paid and case-incurred LDFs respectively, with the CYR 12-60 LDF in the far-right column. Paid factors leveled off, with the CYR 12-60 LDF higher in 2024 than in 2023, but lower than in 2022. The comparable case-incurred factor fell in both 2023 and 2024. Both paid and incurred factors remained higher than their pre-pandemic levels.

Figure 16: Net Paid Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	1.719	1.185	1.092	1.044	1.020	1.008	1.004	1.002	1.002	
2004	1.703	1.187	1.092	1.043	1.017	1.008	1.004	1.002	1.001	
2005	1.701	1.186	1.090	1.041	1.017	1.007	1.004	1.002	1.001	
2006	1.701	1.185	1.085	1.039	1.016	1.007	1.004	1.002	1.001	
2007	1.700	1.175	1.085	1.040	1.016	1.008	1.004	1.002	1.002	2.299
2008	1.694	1.177	1.084	1.042	1.018	1.008	1.005	1.003	1.001	2.291
2009	1.689	1.180	1.088	1.043	1.019	1.009	1.005	1.003	1.002	2.248
2010	1.693	1.183	1.089	1.044	1.020	1.009	1.005	1.002	1.002	2.241
2011	1.690	1.185	1.089	1.045	1.019	1.009	1.004	1.003	1.001	2.252
2012	1.691	1.184	1.091	1.043	1.017	1.008	1.005	1.002	1.001	2.265
2013	1.704	1.187	1.089	1.042	1.017	1.010	1.004	1.002	1.002	2.276
2014	1.715	1.186	1.089	1.043	1.018	1.007	1.004	1.003	1.002	2.296
2015	1.733	1.187	1.090	1.045	1.016	1.009	1.006	1.003	1.002	2.320
2016	1.740	1.190	1.094	1.039	1.020	1.012	1.006	1.003		2.334
2017	1.749	1.199	1.085	1.045	1.026	1.011	1.006			2.342
2018	1.769	1.191	1.091	1.050	1.023	1.012				2.367
2019	1.767	1.200	1.099	1.048	1.021					2.426
2020	1.826	1.215	1.093	1.044						2.372
2021	1.971	1.209	1.092							2.499
2022	1.910	1.214								2.766
2023	1.921									2.646
2024										2.659

Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

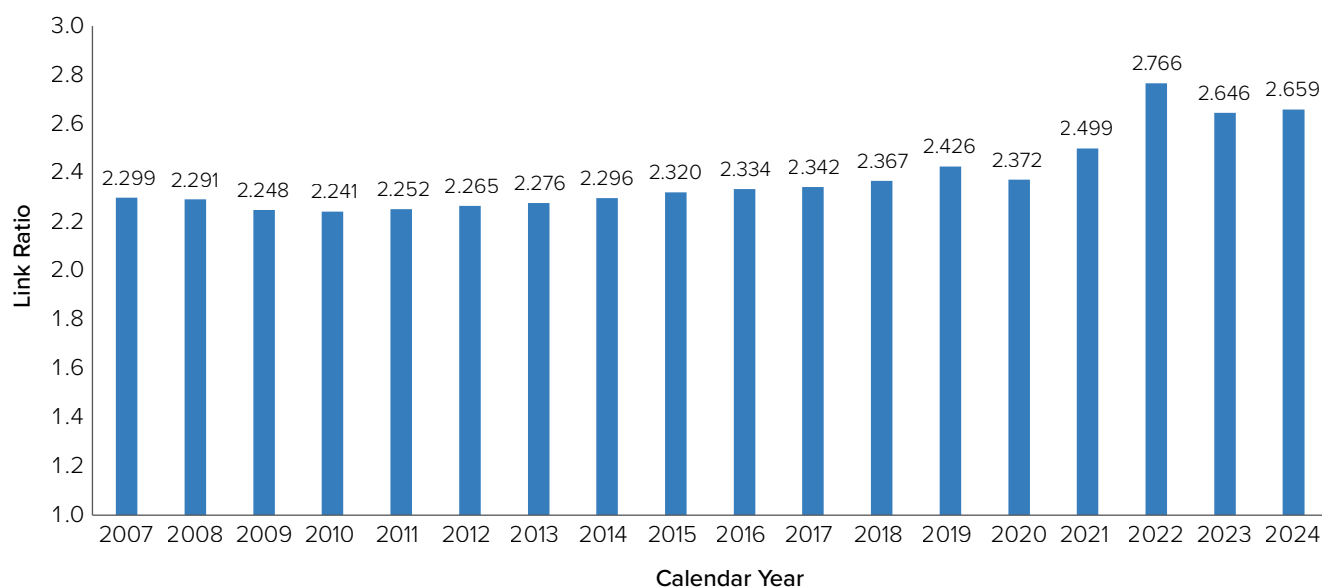
Figure 17: Net Case Incurred Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	1.160	1.057	1.028	1.010	1.005	1.002	1.001	1.001	1.001	0.000
2004	1.156	1.055	1.026	1.010	1.004	1.002	1.001	1.000	1.001	0.000
2005	1.159	1.056	1.027	1.010	1.004	1.002	1.001	1.001	1.000	0.000
2006	1.172	1.059	1.025	1.009	1.003	1.002	1.001	1.001	1.000	0.000
2007	1.180	1.055	1.026	1.009	1.004	1.002	1.001	1.001	1.000	1.281
2008	1.177	1.055	1.023	1.010	1.005	1.002	1.002	1.001	1.001	1.297
2009	1.164	1.051	1.024	1.011	1.005	1.003	1.002	1.001	1.001	1.286
2010	1.157	1.051	1.028	1.010	1.006	1.003	1.001	1.001	1.001	1.271
2011	1.170	1.061	1.026	1.013	1.005	1.003	1.001	1.001	1.001	1.254
2012	1.173	1.058	1.029	1.012	1.005	1.002	1.002	1.000	1.000	1.272
2013	1.175	1.064	1.029	1.012	1.004	1.004	1.001	1.001	1.001	1.293
2014	1.183	1.065	1.030	1.011	1.005	1.002	1.001	1.001	1.001	1.288
2015	1.193	1.067	1.029	1.013	1.005	1.003	1.002	1.001	1.000	1.312
2016	1.204	1.068	1.031	1.012	1.008	1.004	1.002	1.001		1.323
2017	1.206	1.071	1.030	1.016	1.009	1.004	1.002			1.339
2018	1.217	1.069	1.032	1.017	1.008	1.004				1.340
2019	1.209	1.075	1.035	1.017	1.006					1.360
2020	1.222	1.077	1.031	1.012						1.348
2021	1.274	1.077	1.027							1.376
2022	1.269	1.072								1.445
2023	1.248									1.434
2024										1.392

Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

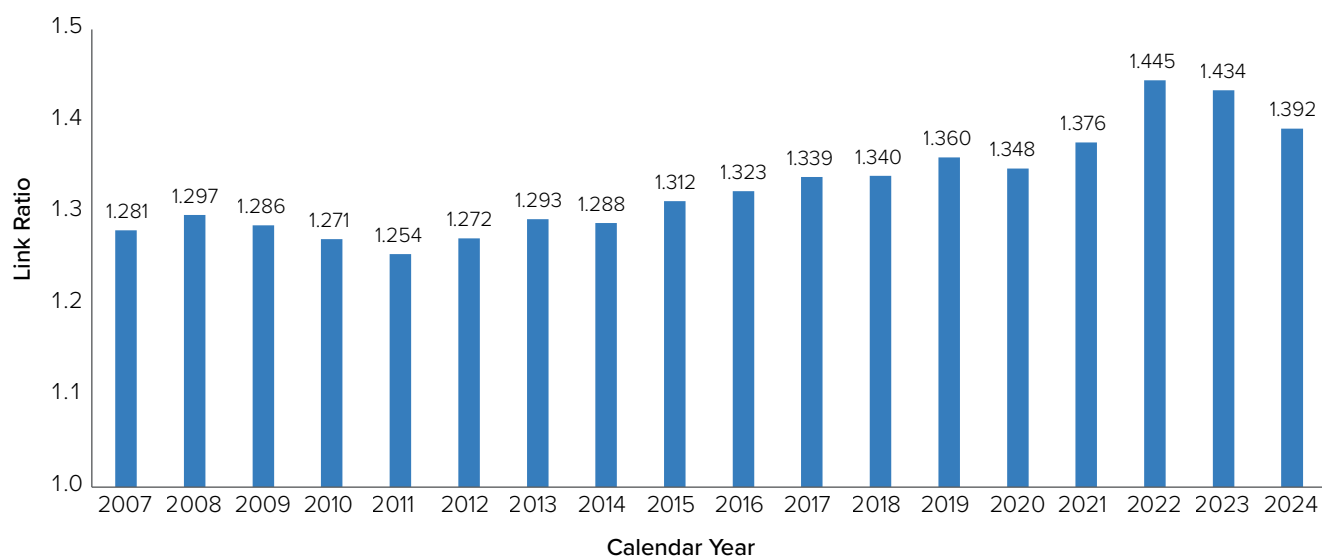
Figures 18 and 19 illustrate the situation:

Figure 18: Net Paid Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 19: Net Case-Incurred Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Personal Auto Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 20 shows loss emergence in 2024 was close to expectations on a paid basis, with actual losses exceeding expected by 1.0%, or \$722 million. On a case-incurred basis, emergence was \$2.3 billion (6.3%) less than expected.

Longer-term patterns are mixed. From 2015 to 2019, paid emergence was on average 2.6% higher than expected. From 2020 to 2024, paid emergence was 5.7% higher than expected.

Case-incurred emergence declined slightly across those periods (while still remaining unfavorable), exceeding expectations by 7.3% in the former period and 6.2% in the latter.

Figure 20: Actual vs Expected Net Loss & DCC Link Ratio - PC Industry (\$ millions)

Calendar Year	Paid Emergence on Prior Accident Years through 120 Months				Case-Incurred Emergence on Prior Accident Years through 120 Months			
	Expected	Actual	Variance	% Variance	Expected	Actual	Variance	% Variance
2015	42,050	43,401	1,351	3.2%	16,698	18,342	1,644	9.8%
2016	45,677	46,653	976	2.1%	18,787	20,250	1,463	7.8%
2017	49,526	50,070	544	1.1%	20,771	22,586	1,815	8.7%
2018	51,632	52,414	781	1.5%	22,576	23,374	798	3.5%
2019	53,676	56,349	2,673	5.0%	23,847	25,641	1,795	7.5%
2020	56,953	56,117	-836	-1.5%	25,758	25,810	52	0.2%
2021	51,457	54,556	3,099	6.0%	23,379	25,309	1,929	8.3%
2022	55,101	65,764	10,663	19.4%	26,008	31,762	5,754	22.1%
2023	65,939	69,769	3,830	5.8%	31,180	34,657	3,477	11.2%
2024	75,664	76,386	722	1.0%	37,008	34,665	-2,342	-6.3%
2015 to 2024	547,675	571,479	23,804	4.3%	246,011	262,396	16,385	6.7%
2015 to 2019	242,561	248,887	6,326	2.6%	102,679	110,194	7,515	7.3%
2020 to 2024	305,113	322,592	17,479	5.7%	143,332	152,203	8,870	6.2%

Source: Analysis by Insurance Information Institute

Figure 21 shows that from 2015 to 2024, increasing inflation propelled loss and DCC higher by \$91.6 billion to \$102.3 billion, or between 8.7% and 9.7% of loss and DCC. This is larger than the prior study's range 2014 to 2023 (\$76.3 billion to \$81.3 billion). The increase is attributed to dropping Accident Year 2014 which was closer to the comparison point of 2008 and hence less affected by inflationary pressures.

Figure 21: Estimated Impact of Increasing Inflation (\$ millions)

	A	B	C	D = A*(Alternative LDF)	E = B*(Alternative LDF)	F = D - C	G = E - C
	Per 12/31/YYYY Schedule P		Per 12/31/2024 Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDFs		Variance to Booked	
Year	Net Paid Loss & DCC @ 12 months	Net Case Incurred Loss & DCC @ 12 months	Net Ultimate Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)
2015	35,090	63,501	85,408	84,037	82,546	-1,371	-2,863
2016	37,509	67,634	92,394	89,831	87,919	-2,563	-4,475
2017	37,540	68,133	93,936	89,906	88,567	-4,030	-5,370
2018	38,521	70,113	97,847	92,256	91,141	-5,592	-6,706
2019	40,118	73,602	102,709	96,080	95,676	-6,629	-7,033
2020	31,529	59,402	83,753	75,509	77,218	-8,244	-6,535
2021	37,290	72,059	105,776	89,308	93,671	-16,468	-12,105
2022	43,280	81,336	119,782	103,652	105,730	-16,130	-14,052
2023	46,622	89,388	131,263	111,656	116,196	-19,607	-15,067
2024	49,417	94,327	140,042	118,351	122,617	-21,691	-17,426
Total	396,916	739,494	1,052,911	950,587	961,281	-102,325	-91,631
					% Variance	-9.7%	-8.7%

Source: Analysis by Insurance Information Institute

Figure 22 calculates the implied compound annual impact of increasing inflation. Using paid development factors, it is 0.8%, in line with our study last year (0.7%). The case-incurred estimate is 0.7%, the same as a year ago.

Figure 22: Implied Average Annual Impact of Increasing Inflation (\$ millions)

	A	B	C	$D = (A/B)^{\frac{1}{(Year-2008)-1}}$	$E = (A/C)^{\frac{1}{(Year-2008)-1}}$
	Per 12/31/YYYY Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDF		Implied Average Annual Impact of Increasing Inflation	
Year	Net Paid Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)
2015	85,408	84,037	82,546	0.2%	0.5%
2016	92,394	89,831	87,919	0.4%	0.6%
2017	93,936	89,906	88,567	0.5%	0.7%
2018	97,847	92,256	91,141	0.6%	0.7%
2019	102,709	96,080	95,676	0.6%	0.6%
2020	83,753	75,509	77,218	0.9%	0.7%
2021	105,776	89,308	93,671	1.3%	0.9%
2022	119,782	103,652	105,730	1.0%	0.9%
2023	131,263	111,656	116,196	1.1%	0.8%
2024	140,042	118,351	122,617	1.1%	0.8%
Total	1,052,911	950,587	961,281	0.8%	0.7%

Source: Analysis by Insurance Information Institute

Auto Liability and Legal System Abuse

A recently published research report by the Insurance Information Institute attempts to quantify one portion of increasing inflation: increases in the number and size of lawsuits in state and federal court, which the organization calls “legal system abuse.” The study shows the number of motor vehicle tort civil case lawsuits in federal court rose at a 4.9% compound annual growth rate from 2014 to 2023 and estimates state court filings rose at 2.8% during the same period. Triple-I adjusts these motor vehicle case filing trends by the percentage of settlements and plaintiff “wins.” The resulting number is multiplied by an estimate of settlements and jury awards. It calls the result the “excess value” that the plaintiffs extract from the legal system.

From 2014 to 2023, Triple-I estimates the excess value of increased motor vehicle tort filings was \$42.8 billion. Over the same period, an earlier version of this study estimated the effect of increasing inflation across all auto liability was \$118.9 billion to \$137.2 billion. While a cross-data set comparison is inherently precarious, a simple calculation suggests that excess motor vehicle litigation is approximately one-third of increasing inflation. By improving upon qualitative speculation, this quantitative finding makes it clear that legal system abuse is a significant driver of increasing inflation.³

3. Insurance Information Institute, “Review of Motor Vehicle Tort Cases Across the Federal and State Civil Courts (2025),” p. 2.

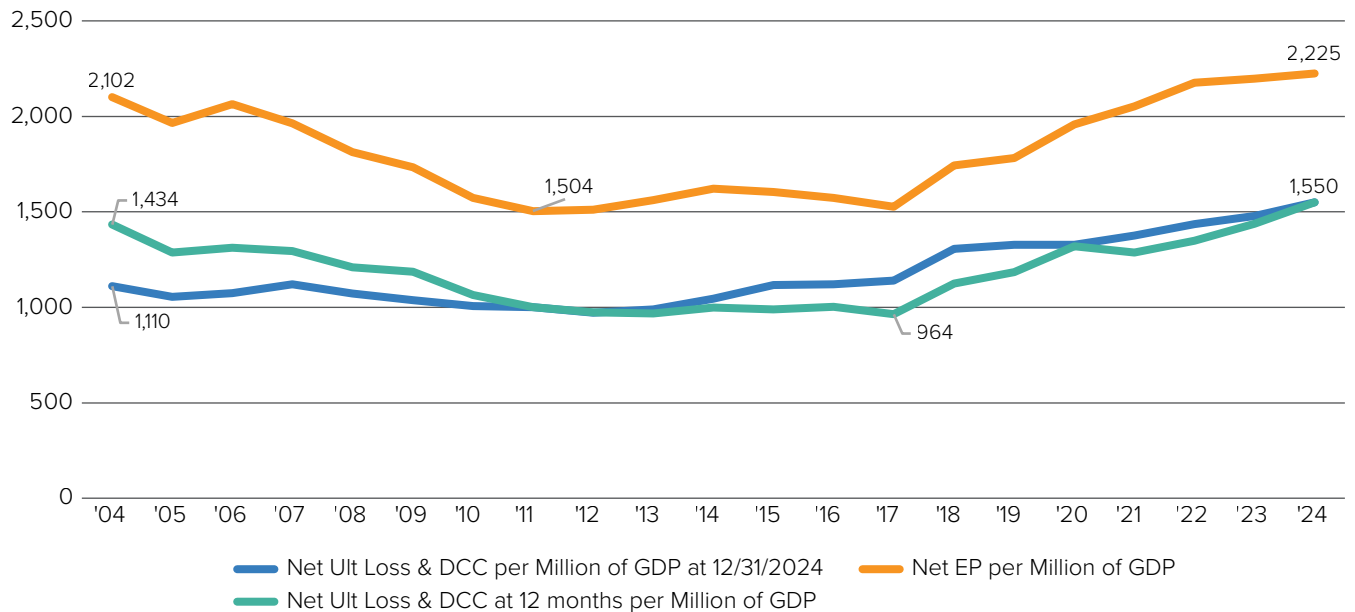
Trends in Other Liability – Occurrence

This section looks for trends in Other Liability – Occurrence premiums, losses and loss development. We reach conclusions about the inflationary environment insurers of the line face.⁴

Premium and Losses

In 2024, net earned premium per million GDP rose for the seventh consecutive year. The metric was 37.1% higher than in 2014, as illustrated in Figure 23. Losses and DCC rose faster – 48.3% higher than a decade earlier, as of the latest evaluation. They rose 11 years out of the last 12 and are at the highest levels of the period studied.

Figure 23: Net Earned Premium (EP) and Ultimate Loss & DCC per Million of GDP by Accident Year-PC Industry



Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

4. A note on homogeneity. Our past papers have noted that trends loss development patterns can be complicated by the homogeneity of a line of business. This is especially true for Other Liability lines, which are a catch-all of liabilities that aren't specifically addressed elsewhere in Schedule P. A partial list of lines classified as Other Liability gives a flavor for the heterogeneity:

- Contractual liability
- Elevator and escalator liability
- Environmental pollution liability
- Kidnap and ransom liability
- Commercial umbrella and excess
- Personal umbrella and excess
- Internet liability
- Professional errors and omissions liability
- Directors and officers liability

Self-sorting addresses some of this. Umbrella and excess coverages tend to be written on an occurrence basis. Professional errors and omissions and directors and officers tend to be claims-made. This paper assumes heterogeneity (the "mix of business") remains consistent over time.

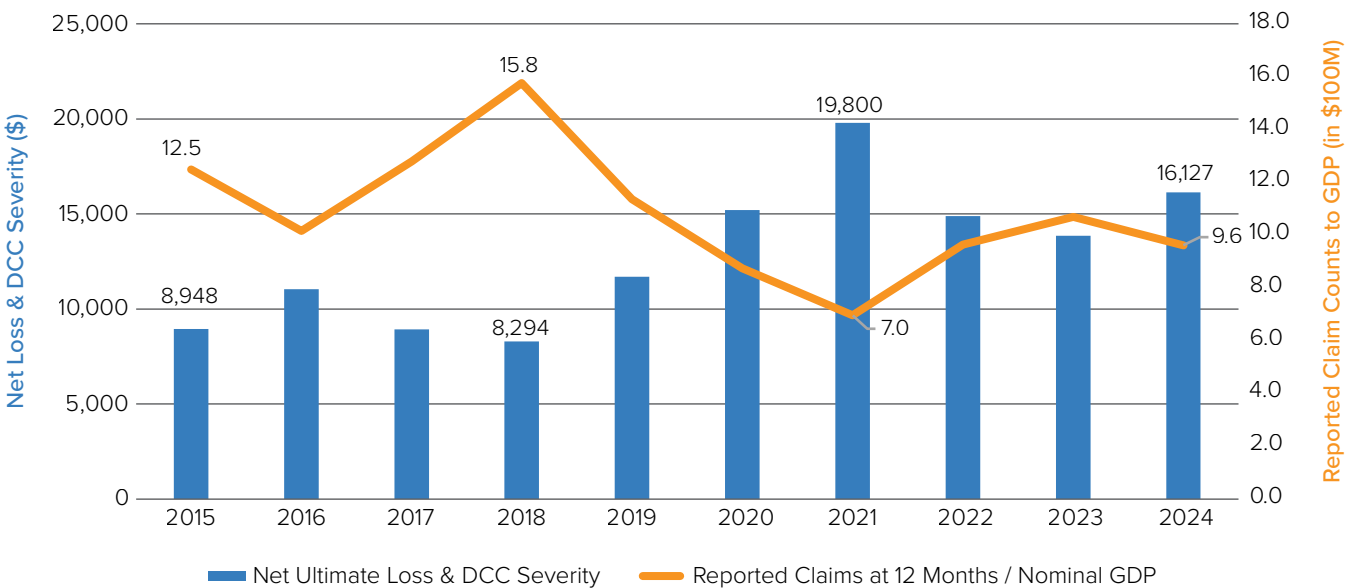
Frequency and Severity

Figure 24 shows frequency and severity trends are less pronounced than in the automobile lines. Frequency is lower than in 2015, but there has been fluctuation. Frequency rose in 2017 and 2018, then fell leading into the pandemic and through 2021. It rose the next two years before falling in 2024.

Severity from 2015 to 2024 rose at a compound average growth rate of 6.8% per year. This was faster than economic inflation as measured by the CPI-All Urban, which rose at a 3.2% rate, compounded.

Within the overall increase in severity were fluctuations. Severity changed relatively little from 2015 to 2018, escalated to a peak in 2021 then declined two of the next three years.

Figure 24: Reported Claim Frequency and Net Ultimate Loss & DCC Severity by Accident Year - PC Industry



Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Loss Development

Figures 25 and 26 show the LDFs for Other Liability – Occurrence. Paid LDFs do not show the inexorable rise in development factors that characterizes the auto lines. Case-incurred patterns rise most years but not all. The CYR 12-60 LDFs have risen for both paid and case-incurred losses.

Figure 25: Net Paid Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	1.923	1.522	1.304	1.183	1.150	1.051	1.039	1.025	1.020	
2004	1.748	1.500	1.335	1.218	1.114	1.045	1.047	1.025	1.020	
2005	1.721	1.456	1.353	1.193	1.081	1.061	1.046	1.038	1.030	
2006	1.868	1.599	1.315	1.163	1.105	1.070	1.040	1.023	1.026	
2007	1.974	1.499	1.306	1.205	1.121	1.071	1.041	1.034	1.025	4.295
2008	2.145	1.612	1.367	1.213	1.119	1.070	1.046	1.037	1.039	5.201
2009	2.043	1.558	1.351	1.207	1.117	1.070	1.060	1.039	1.028	5.043
2010	2.377	1.726	1.366	1.229	1.112	1.086	1.069	1.034	1.019	4.999
2011	2.513	1.694	1.403	1.251	1.147	1.087	1.057	1.032	1.022	6.099
2012	2.545	1.712	1.425	1.229	1.185	1.078	1.051	1.023	1.018	7.110
2013	2.955	1.827	1.417	1.290	1.131	1.078	1.042	1.020	1.024	7.107
2014	2.468	1.717	1.493	1.232	1.135	1.065	1.034	1.033	1.022	8.724
2015	2.669	1.816	1.450	1.245	1.113	1.058	1.044	1.040	1.029	8.036
2016	2.705	1.759	1.450	1.207	1.113	1.107	1.068	1.042		7.985
2017	2.824	1.719	1.418	1.217	1.177	1.131	1.063			9.465
2018	2.832	1.644	1.356	1.282	1.196	1.106				8.874
2019	2.443	1.608	1.480	1.285	1.165					8.790
2020	2.338	1.703	1.438	1.274						6.868
2021	2.857	1.720	1.478							6.201
2022	2.728	1.741								9.232
2023	2.726									8.666
2024										8.943

Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 26: Net Case Incurred Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	1.639	1.229	1.141	1.068	1.075	1.030	1.023	1.012	1.016	0.000
2004	1.457	1.286	1.171	1.109	1.061	1.020	1.025	1.024	1.008	0.000
2005	1.578	1.254	1.175	1.094	1.032	1.038	1.036	1.023	1.020	0.000
2006	1.616	1.311	1.167	1.081	1.055	1.049	1.018	1.013	1.024	0.000
2007	1.680	1.307	1.157	1.107	1.080	1.035	1.023	1.022	1.014	2.536
2008	1.762	1.331	1.181	1.130	1.056	1.043	1.022	1.025	1.023	2.872
2009	1.715	1.297	1.202	1.106	1.060	1.034	1.033	1.029	1.014	2.939
2010	1.769	1.385	1.188	1.108	1.055	1.054	1.036	1.020	1.002	2.855
2011	1.814	1.371	1.215	1.113	1.073	1.053	1.032	1.009	1.012	2.999
2012	1.829	1.396	1.235	1.092	1.107	1.040	1.018	1.011	1.013	3.415
2013	1.880	1.431	1.213	1.158	1.073	1.042	1.013	1.009	1.019	3.292
2014	1.851	1.383	1.259	1.125	1.067	1.028	1.020	1.022	1.013	3.534
2015	1.890	1.465	1.251	1.130	1.051	1.034	1.030	1.019	1.015	3.641
2016	1.908	1.411	1.255	1.110	1.066	1.063	1.035	1.026		3.463
2017	2.080	1.432	1.186	1.131	1.104	1.076	1.040			4.073
2018	1.936	1.381	1.223	1.168	1.109	1.070				4.131
2019	1.850	1.379	1.272	1.167	1.104					3.929
2020	1.846	1.429	1.276	1.166						3.366
2021	2.090	1.469	1.294							3.521
2022	2.054	1.473								4.437
2023	2.127									4.495
2024										4.729

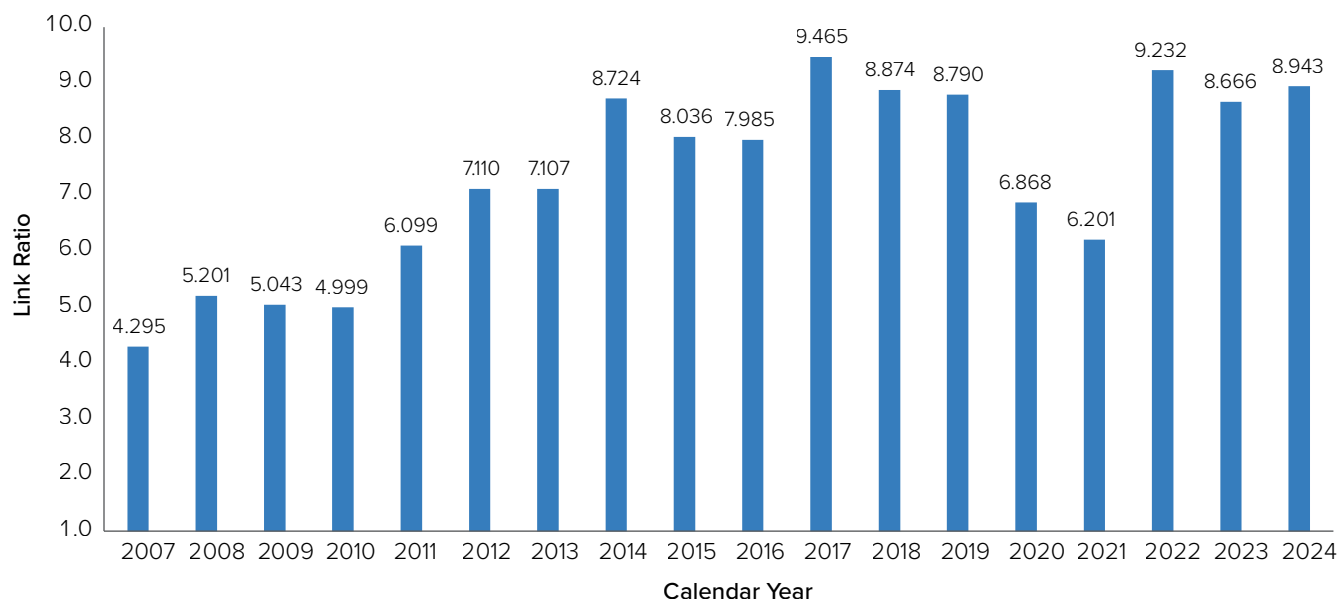
Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figures 27 and 28 show a long-term upward trend in CYR 12-60 LDFs with fluctuation from year to year. Paid factors rose in 2008, again in 2011, again in 2014 and in 2017. With the exception of pandemic years 2020 and 2021, paid factors have hovered between 8.666 and 9.465 since 2017. The 2024 factor, 8.943, is more than twice as high as the 2007 factor.

Case-incurred factors show less spikiness. They generally rose from 2007 to 2018, fell, then climbed even higher starting in 2022. The CYR 12-60 LDF in 2024, 4.729, is the highest in the study period, nearly twice as high as in 2007.

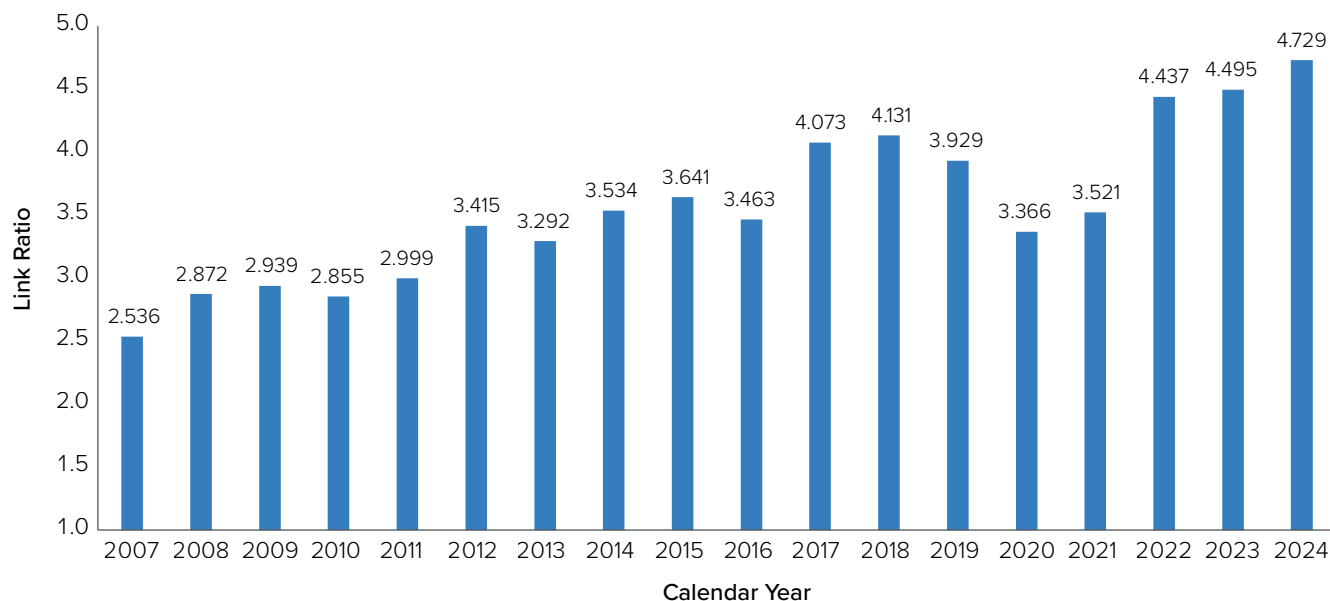
The rising factors are consistent with having increasing inflation in the portfolio.

Figure 27: Net Paid Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 28: Net Case-Incurred Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Other Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

The fluctuating loss development patterns mean emergence vs. actual trends fluctuate as well. On a paid basis, in the pandemic years of 2020 and 2021, emergence exceeded expectation by more than 15%. The next two years, emergence was more than 20% higher than expected. Grouping years into five-year blocs smooths out the trend. From 2015 to 2019 emergence was 4.0% above expected. From 2020 to 2024, emergence was also 4.0% above expected.

The trend was similar for case-incurred losses. Emergence was favorable from 2019 to 2021 and unfavorable from 2022 to 2024. Looking at five-year blocs, emergence was 5.0% higher than expected from 2015 to 2019 and 8.5% higher from 2020 to 2024.

Figure 29: Actual vs Expected Net Loss & DCC Link Ratio - PC Industry (\$ millions)

Calendar Year	Paid Emergence on Prior Accident Years through 120 Months				Case-Incurred Emergence on Prior Accident Years through 120 Months			
	Expected	Actual	Variance	% Variance	Expected	Actual	Variance	% Variance
2015	12,290	13,020	730	5.9%	11,307	11,829	522	4.6%
2016	13,252	14,058	806	6.1%	11,947	12,308	361	3.0%
2017	14,274	16,904	2,629	18.4%	12,678	15,330	2,652	20.9%
2018	16,286	15,941	-345	-2.1%	14,150	14,766	616	4.4%
2019	17,819	17,023	-796	-4.5%	16,233	15,400	-832	-5.1%
2020	19,821	16,304	-3,517	-17.7%	17,991	14,475	-3,516	-19.5%
2021	18,991	15,918	-3,073	-16.2%	16,646	15,904	-742	-4.5%
2022	17,830	21,942	4,112	23.1%	16,384	21,117	4,733	28.9%
2023	20,983	25,391	4,408	21.0%	19,834	24,329	4,495	22.7%
2024	25,970	28,203	2,233	8.6%	25,054	28,247	3,193	12.7%
2015 to 2024	177,517	184,705	7,188	4.0%	162,225	173,707	11,482	7.1%
2015 to 2019	73,922	76,947	3,025	4.1%	66,315	69,634	3,319	5.0%
2020 to 2024	103,595	107,758	4,164	4.0%	95,910	104,073	8,163	8.5%

Source: Analysis by Insurance Information Institute

The sharp rise in development factors over time shows how increasing inflation has affected the line of business. Figure 30 shows the 10-year impact of increasing inflation to be between \$83.4 billion and \$103.3 billion, constituting 27.4% and 34.0% of booked losses. In dollar terms, these amounts are comparable to the impact on personal auto liability, a line with three times greater loss volume. In percentage terms, these are comparable to, or slightly higher than, the impact on commercial auto liability.

Figure 30: Estimated Impact of Increasing Inflation (\$ millions)

	A		B	C	D = A*(Alternative LDF)		E = B*(Alternative LDF)	F = D - C	G = E - C
	Per 12/31/YYYY Schedule P			Per 12/31/2024 Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDFs		Variance to Booked		
Year	Net Paid Loss & DCC @ 12 months	Net Case Incurred Loss & DCC @ 12 months		Net Ultimate Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	
2015	1,596	4,188		20,439	13,654	16,432	-6,785	-4,007	
2016	1,583	4,249		21,095	13,537	16,674	-7,558	-4,421	
2017	1,567	4,094		22,376	13,404	16,063	-8,972	-6,313	
2018	1,990	5,239		26,992	17,021	20,556	-9,970	-6,435	
2019	2,440	5,817		28,604	20,871	22,825	-7,733	-5,779	
2020	2,399	5,329		28,352	20,519	20,912	-7,834	-7,441	
2021	2,353	5,538		32,599	20,124	21,731	-12,475	-10,868	
2022	2,897	6,745		37,341	24,783	26,465	-12,558	-10,876	
2023	3,260	7,408		41,002	27,882	29,067	-13,120	-11,935	
2024	3,389	7,630		45,238	28,987	29,938	-16,251	-15,301	
Total	23,473	56,237		304,038	200,782	220,662	-103,256	-83,376	

% Variance -34.0% -27.4%

Source: Analysis by Insurance Information Institute

Figure 31 shows the average annual impact of increasing inflation in the past 10 years is 2.7% on a case-incurred basis and 3.7% on a paid basis. Both are higher than their counterparts in either personal or commercial auto.

Figure 31: Implied Average Annual Impact of Increasing Inflation (\$ millions)

	A	B	C	$D = (A/B)^{\frac{1}{(1/(\text{Year}-2008)) - 1}}$	$E = (A/C)^{\frac{1}{(1/(\text{Year}-2008)) - 1}}$
	Per 12/31/YYYY Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDF		Implied Average Annual Impact of Increasing Inflation	
Year	Net Paid Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)
2015	20,439	13,654	16,432	5.9%	3.2%
2016	21,095	13,537	16,674	5.7%	3.0%
2017	22,376	13,404	16,063	5.9%	3.8%
2018	26,992	17,021	20,556	4.7%	2.8%
2019	28,604	20,871	22,825	2.9%	2.1%
2020	28,352	20,519	20,912	2.7%	2.6%
2021	32,599	20,124	21,731	3.8%	3.2%
2022	37,341	24,783	26,465	3.0%	2.5%
2023	41,002	27,882	29,067	2.6%	2.3%
2024	45,238	28,987	29,938	2.8%	2.6%
Total	304,038	200,782	220,662	3.7%	2.7%

Source: Analysis by Insurance Information Institute

Trends in Products Liability – Occurrence

This section looks for trends in Products Liability – Occurrence premiums, losses and loss development. We reach conclusions about the inflationary environment insurers of the line face.

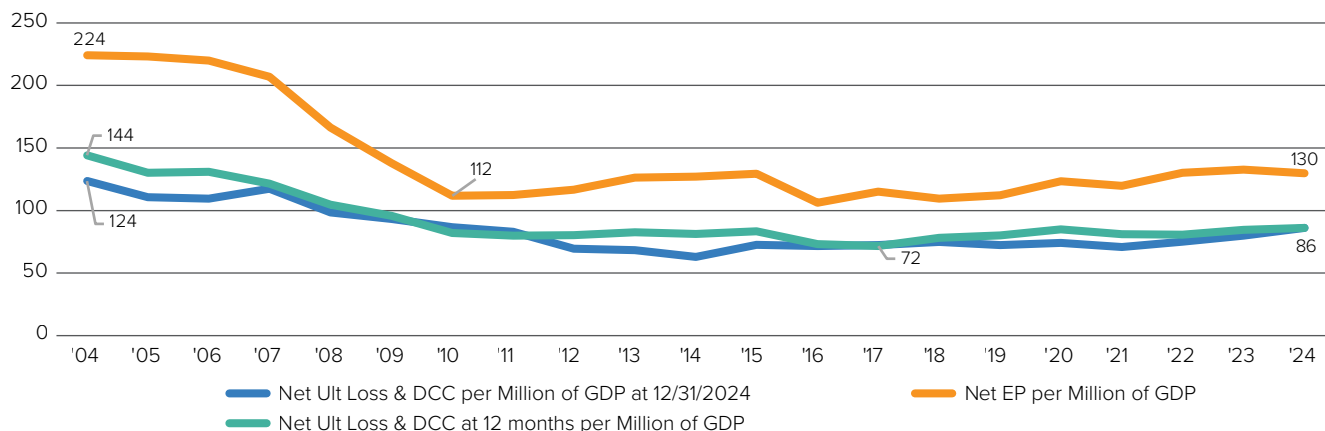
The line is the smallest presented in this paper, with 2024 ultimate net loss and DCC of about 1/8th that of the next biggest line.

Premium and Losses

Figure 32 shows some fluctuation but little overall change in premium per \$1 million GDP since a sharp decline that ended around 2012. In 2024, net earned premium per \$1 million GDP was 2.1% higher than in 2014.

Net ultimate loss has been trending upward from 2014 to 2024, with losses at the latest evaluation 36.7% higher than in 2014, the highest level since 2010. Losses fluctuated between 2015 and 2022 before trending higher in 2023 and 2024.

Figure 32: Net Earned Premium (EP) and Ultimate Loss & DCC per Million of GDP by Accident Year-PC Industry

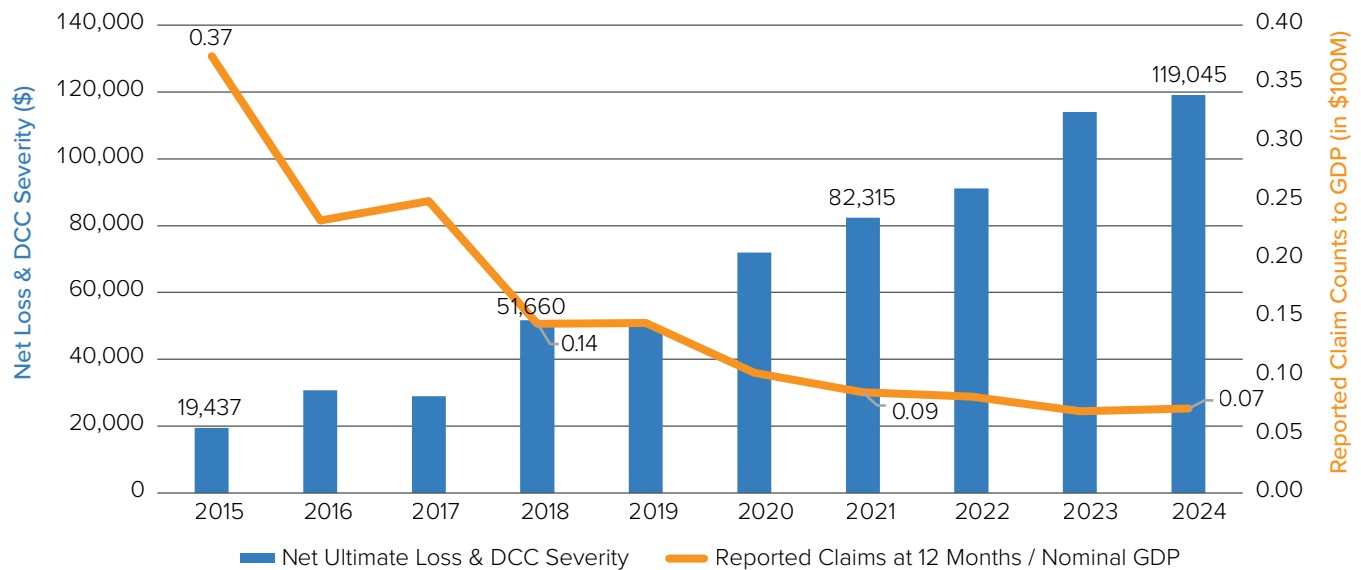


Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Frequency and Severity

Figure 33 shows a large decrease in claim frequency from 2015 to 2024, offset by significant increases in claim severity. Frequency declined 72.5% between 2015 and 2020, then another 9.7% between 2020 and 2024.

Figure 33: Reported Claim Frequency and Net Ultimate Loss & DCC Severity by Accident Year - PC Industry



Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Severity increased 512.5% from 2015 to 2024, a compound annual growth rate of 22.3%. The CPI-All Urban, by contrast, grew at 3.2% CAGR over that period. Severity in 2024, \$119,045 per reported claim, is the highest across the period.

Loss Development

Figures 34 and 35 show paid and case-incurred loss development patterns trending upward, with the notable exceptions of the 2020 and 2021 pandemic years. The CYR 12-60 LDFs have moved higher in most years since 2014. The paid factor was the highest since 2008. The case-incurred factor in 2024 was the highest studied.

Figure 34: Net Paid Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	2.793	1.990	1.519	1.360	1.190	1.138	1.121	1.072	1.059	
2004	2.394	1.633	1.780	1.376	1.229	1.133	1.114	1.076	1.058	
2005	1.854	2.858	1.844	1.467	1.268	1.140	1.119	1.090	1.067	
2006	3.592	2.130	1.670	1.358	1.176	1.133	1.105	1.073	1.064	
2007	2.784	1.985	1.584	1.472	1.218	1.090	1.067	1.052	1.070	24.858
2008	2.665	1.906	1.552	1.337	1.203	1.089	1.086	1.065	1.052	15.049
2009	2.542	1.948	1.481	1.332	1.155	1.141	1.101	1.075	1.063	12.963
2010	3.137	1.906	1.524	1.337	1.152	1.106	1.071	1.043	1.036	10.425
2011	3.227	1.798	1.544	1.417	1.173	1.095	1.091	1.048	1.028	13.955
2012	3.086	1.936	1.517	1.305	1.163	1.117	1.079	1.050	1.044	12.174
2013	2.690	1.932	1.525	1.276	1.173	1.101	1.069	1.054	1.026	11.259
2014	3.109	1.747	1.552	1.289	1.168	1.069	1.108	1.051	1.042	10.749
2015	2.945	1.773	1.544	1.317	1.209	1.101	1.069	1.073	1.051	12.917
2016	2.996	1.954	1.624	1.250	1.173	1.106	1.085	1.088		10.237
2017	3.315	1.789	1.497	1.250	1.198	1.140	1.111			10.514
2018	3.943	1.916	1.480	1.351	1.267	1.120				12.885
2019	4.183	1.833	1.427	1.375	1.205					15.091
2020	2.161	1.649	1.533	1.500						15.004
2021	2.879	2.023	1.632							7.327
2022	3.260	1.951								9.157
2023	3.226									13.897
2024										15.405

Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

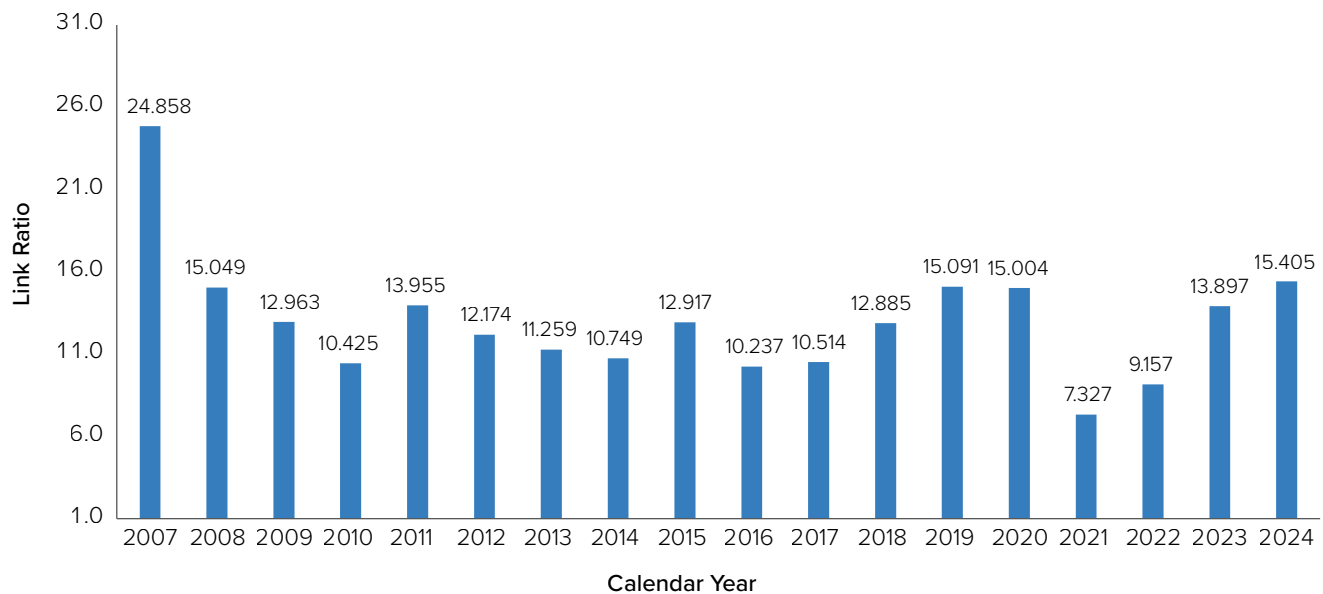
Figure 35: Net Case Incurred Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	1.848	1.509	1.214	1.169	1.106	1.065	1.078	1.053	1.052	0.000
2004	1.807	1.315	1.331	1.133	1.120	1.104	1.053	1.055	1.041	0.000
2005	1.636	1.508	1.323	1.219	1.172	1.081	1.057	1.068	1.054	0.000
2006	1.658	1.503	1.329	1.142	1.087	1.077	1.081	1.068	1.045	0.000
2007	1.874	1.449	1.386	1.139	1.115	1.043	1.042	1.038	1.068	3.888
2008	1.826	1.443	1.189	1.154	1.090	1.067	1.045	1.045	1.048	4.221
2009	1.727	1.329	1.204	1.117	1.091	1.087	1.083	1.049	1.054	4.284
2010	2.019	1.285	1.292	1.147	1.057	1.069	1.031	1.040	1.018	3.945
2011	1.756	1.426	1.225	1.149	1.102	1.040	1.053	1.031	1.018	3.632
2012	1.832	1.430	1.528	0.932	1.063	1.065	1.049	1.034	1.034	3.135
2013	1.753	1.494	1.253	1.118	1.097	1.065	1.018	1.042	1.013	3.772
2014	1.941	1.377	1.308	1.102	1.094	1.024	1.083	1.026	1.032	3.525
2015	1.882	1.359	1.268	1.178	1.111	1.067	1.051	1.040	1.043	5.088
2016	1.887	1.407	1.319	1.131	1.089	1.071	1.064	1.077		3.025
2017	1.876	1.476	1.224	1.137	1.151	1.077	1.090			3.747
2018	2.028	1.409	1.251	1.204	1.099	1.080				3.688
2019	2.101	1.476	1.239	1.190	1.099					4.653
2020	1.704	1.447	1.319	1.303						4.101
2021	1.804	1.525	1.309							3.576
2022	2.066	1.562								3.894
2023	2.100									4.946
2024										5.599

Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

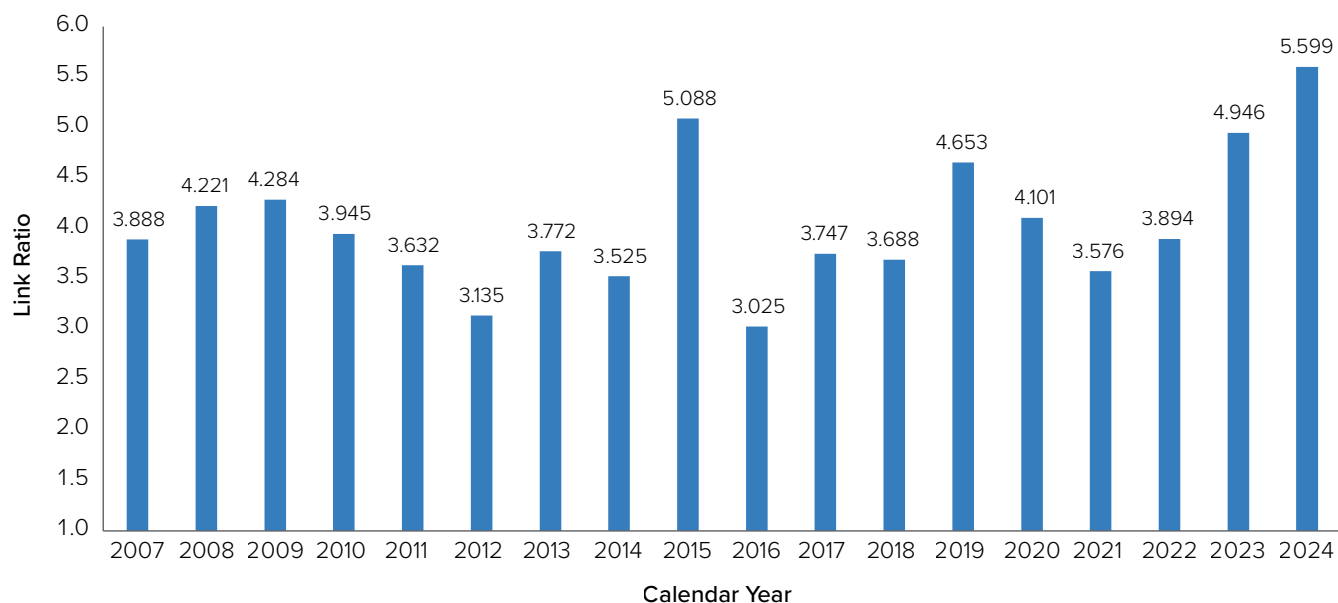
The CYR 12-60 LDFs on a paid and incurred basis are shown in Figures 36 and 37. Noteworthy is the growth in the overall factors from 2016, with a pause for pandemic years 2020 and 2021.

Figure 36: Net Paid Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 37: Net Case-Incurred Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Products Liability Occurrence Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 38 shows that losses emerged close to or less than expectation through 2022. In 2023 and 2024 losses were on the order of 20% higher than expected. This might be a result of pandemic-driven low LDFs in 2020 and 2021, which would affect loss projections in 2023 and 2024.

Figure 38: Actual vs Expected Net Loss & DCC Link Ratio - PC Industry (\$ millions)

Calendar Year	Paid Emergence on Prior Accident Years through 120 Months				Case-Incurred Emergence on Prior Accident Years through 120 Months			
	Expected	Actual	Variance	% Variance	Expected	Actual	Variance	% Variance
2015	1,136	1,153	17	1.5%	946	1,132	186	19.7%
2016	1,130	1,094	-36	-3.2%	1,049	859	-189	-18.0%
2017	1,073	995	-77	-7.2%	957	863	-94	-9.8%
2018	1,040	1,060	20	2.0%	936	914	-22	-2.3%
2019	1,019	1,051	33	3.2%	866	1,024	159	18.4%
2020	1,054	1,024	-30	-2.8%	975	907	-68	-6.9%
2021	1,172	1,007	-165	-14.0%	981	988	8	0.8%
2022	1,023	970	-53	-5.2%	967	1,007	41	4.2%
2023	944	1,202	258	27.4%	947	1,130	183	19.3%
2024	1,043	1,302	260	24.9%	1,065	1,371	307	28.8%
2015 to 2024	10,631	10,859	228	2.1%	9,686	10,197	511	5.3%
2015 to 2019	5,397	5,354	-43	-0.8%	4,753	4,793	41	0.9%
2020 to 2024	5,234	5,505	271	5.2%	4,934	5,404	470	9.5%

Source: Analysis by Insurance Information Institute

The steady increase in loss development factors results in an estimate that increasing inflation added between \$4.6 billion and \$4.8 billion to losses between 2015 and 2024. This is between 27.1% and 28.0% of booked losses. On a percentage basis, this is at a level similar to Commercial Auto Liability and Other Liability – Occurrence.

Inflationary issues appear to be accelerating for this line. The impact on Accident Year 2024 is estimated at \$1.1 billion on a case-incurred basis and \$1.3 billion on a paid basis. These are 45% and 52% of booked losses for that year.

Figure 39: Estimated Impact of Increasing Inflation (\$ millions)

	A	B	C	D = A*(Alternative LDF)		E = B*(Alternative LDF)		F = D - C	G = E - C
	Per 12/31/YYYY Schedule P		Per 12/31/2024 Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDFs		Variance to Booked			
Year	Net Paid Loss & DCC @ 12 months	Net Case Incurred Loss & DCC @ 12 months	Net Ultimate Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)		
2015	67	236	1,328	1,323	1,256	-5	-72		
2016	59	221	1,346	1,163	1,176	-182	-170		
2017	63	231	1,420	1,257	1,231	-163	-190		
2018	51	247	1,545	1,022	1,319	-524	-227		
2019	54	238	1,558	1,073	1,267	-485	-291		
2020	88	236	1,580	1,750	1,258	169	-323		
2021	55	218	1,677	1,088	1,160	-588	-517		
2022	60	222	1,951	1,185	1,185	-767	-766		
2023	63	238	2,212	1,256	1,267	-957	-945		
2024	61	258	2,510	1,214	1,376	-1,296	-1,134		
Total	621	2,345	17,129	12,330	12,495	-4,798	-4,634		
						% Variance		-28.0%	-27.1%

Source: Analysis by Insurance Information Institute

Figure 40 indicates that the average annual impact of increasing inflation is approximately 2.3% as measured by paid losses and 2.4% as measured by case-incurred losses. More recent years (2021 and later) are all in excess of 2.9%. All estimates of earlier years are less than 2%, with the exceptions of the paid estimates 2018 and 2019. This is evidence that increasing inflation has affected this portfolio more in recent years.

Figure 40: Implied Average Annual Impact of Increasing Inflation (\$ millions)

	A	B	C	D = (A/B) ^ (1/(Year-2008))-1	E = (A/C) ^ (1/(Year-2008))-1
	Per 12/31/YYYY Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDF		Implied Average Annual Impact of Increasing Inflation	
Year	Net Paid Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)
2015	1,328	1,323	1,256	0.1%	0.8%
2016	1,346	1,163	1,176	1.8%	1.7%
2017	1,420	1,257	1,231	1.4%	1.6%
2018	1,545	1,022	1,319	4.2%	1.6%
2019	1,558	1,073	1,267	3.5%	1.9%
2020	1,580	1,750	1,258	-0.8%	1.9%
2021	1,677	1,088	1,160	3.4%	2.9%
2022	1,951	1,185	1,185	3.6%	3.6%
2023	2,212	1,256	1,267	3.8%	3.8%
2024	2,510	1,214	1,376	4.6%	3.8%
Total	17,129	12,330	12,495	2.3%	2.4%

Source: Analysis by Insurance Information Institute

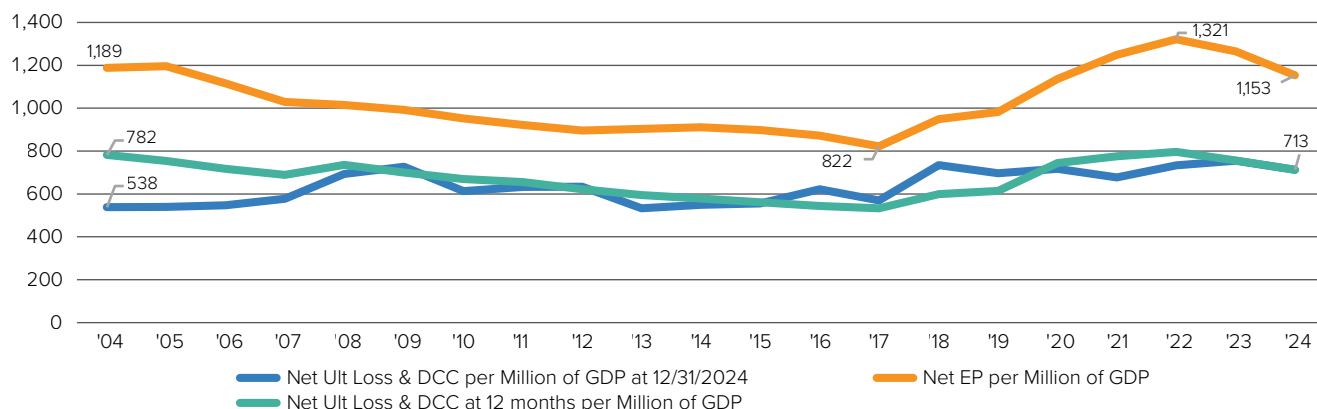
Trends in Other Liability – Claims-Made

This section looks for trends in Other Liability – Claims-Made premiums, losses and loss development. We reach conclusions about the inflationary environment insurers of the line face.

Premium and Losses

Figure 41 shows premium and loss trends. Premium per \$1 million GDP fell most years from 2005 through 2017. The year 2017 appears to be an inflection point. Premium then rose through 2022 before falling the two most recent years. Premium in 2024 was 27% higher than a decade earlier but approximately equal to 2004 levels. However, rates peaked in 2022.

Figure 41: Net Earned Premium (EP) and Ultimate Loss & DCC per Million of GDP by Accident Year-PC Industry



Source: NAIC P&C Industry Other Liability Claims-Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Losses as latest evaluation have been generally increasing since 2013. They are 30% higher than in 2014, but not the highest in the survey period. Losses were higher in 2018, 2020, 2022 and 2023.

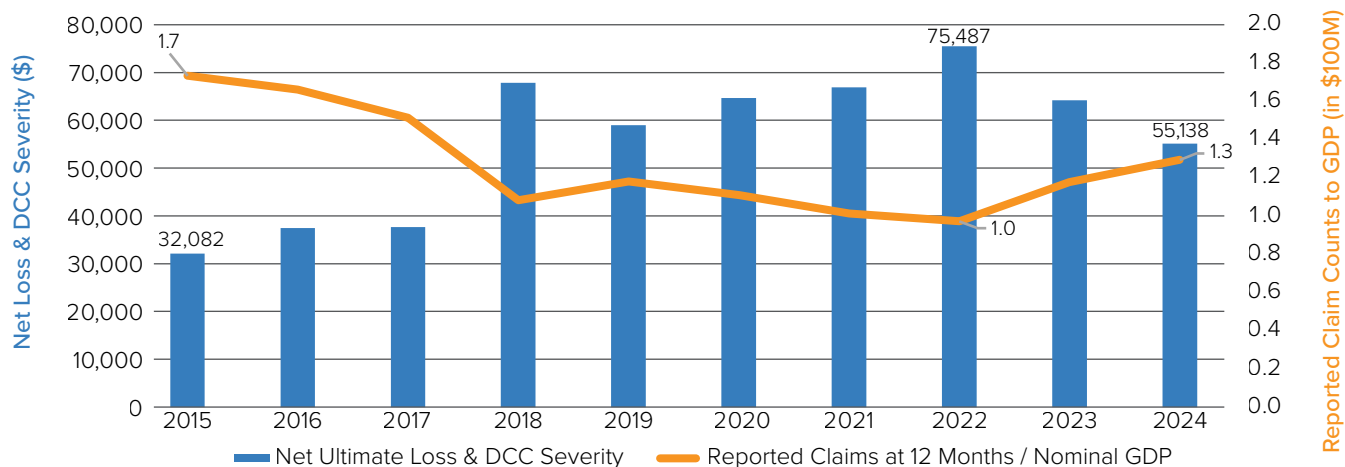
Frequency and Severity

Figure 42 shows, similar to other lines studied, generally decreasing frequency and generally increasing severity. Both fluctuate across years.

Frequency falls from 2015 to 2018. It was higher in 2024 than in 2018, but the 2024 frequency of 1.3 claims per \$100 million GDP is approximately equal to the 2015-2024 average, 1.4 per \$100 million.

Severity peaked in 2022. The two most recent years are similar to the 2018-2021 period. All the years from 2018 to 2024 are significantly higher than the 2015-2017 period.

Figure 42: Reported Claim Frequency and Net Ultimate Loss & DCC Severity by Accident Year - PC Industry



Source: NAIC P&C Industry Other Liability Claims-Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence. Nominal Gross Domestic Product, Annual, Not Seasonally Adjusted accessed July 2025, from [FRED](#) (Federal Reserve Economic Data)

Loss Development

Figures 43 and 44 show that loss development factors for this line of business fluctuate.

Figure 43: Net Paid Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	3.703	1.838	1.387	1.185	1.150	1.091	1.058	1.048	1.022	
2004	3.508	1.814	1.446	1.173	1.097	1.096	1.058	1.021	1.016	
2005	3.780	1.884	1.431	1.193	1.127	1.073	1.034	1.037	1.012	
2006	3.466	1.986	1.330	1.186	1.078	1.051	1.045	1.028	1.031	
2007	3.928	1.774	1.390	1.178	1.122	1.071	1.032	1.026	1.016	11.184
2008	3.455	1.732	1.331	1.174	1.100	1.065	1.069	1.034	1.018	13.100
2009	3.861	1.793	1.405	1.188	1.114	1.086	1.051	1.027	1.027	9.729
2010	3.968	1.762	1.326	1.169	1.147	1.060	1.052	1.036	1.017	11.029
2011	3.751	1.752	1.304	1.247	1.128	1.074	1.037	1.016	1.014	11.163
2012	3.599	1.719	1.479	1.182	1.123	1.074	1.050	1.015	1.017	10.905
2013	4.101	1.900	1.385	1.180	1.111	1.042	1.027	1.024	1.023	9.935
2014	4.070	1.860	1.355	1.195	1.102	1.056	1.034	1.021	1.012	10.741
2015	3.716	1.895	1.349	1.178	1.098	1.080	1.044	1.026	1.013	14.263
2016	3.693	1.776	1.331	1.175	1.099	1.078	1.049	1.035		11.318
2017	3.660	1.785	1.496	1.174	1.095	1.078	1.065			11.191
2018	4.234	1.769	1.294	1.253	1.134	1.099				10.478
2019	3.840	1.682	1.435	1.242	1.137					11.862
2020	2.890	1.673	1.335	1.225						11.934
2021	2.861	1.862	1.408							7.388
2022	3.704	1.844								8.604
2023	3.645									11.431
2024										11.594

Source: NAIC P&C Industry Other Liability Claims Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

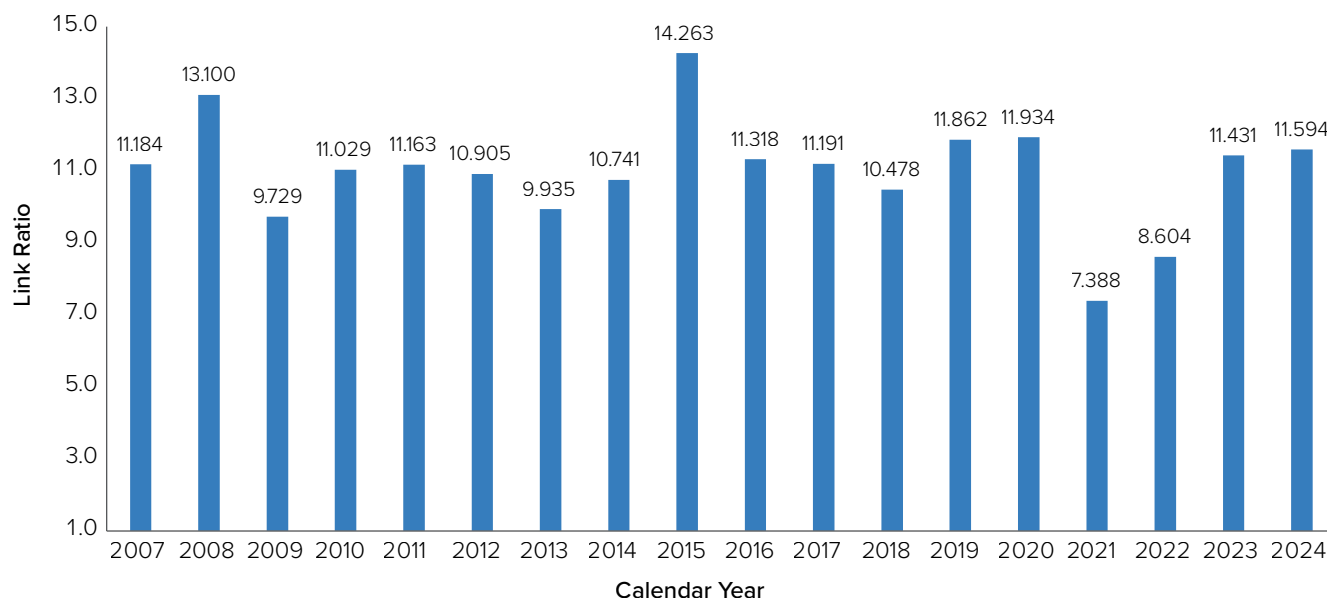
Figure 44: Net Case Incurred Loss & DCC Link Ratio - PC Industry

Acc Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	CYR 12-60
2003	2.259	1.429	1.202	1.104	1.052	1.051	1.028	1.026	1.023	0.000
2004	1.836	1.491	1.169	1.078	1.045	1.043	1.034	0.993	1.011	0.000
2005	1.940	1.402	1.188	1.083	1.076	1.024	1.030	1.014	1.001	0.000
2006	2.213	1.425	1.182	1.088	1.055	1.020	1.021	1.006	1.013	0.000
2007	2.215	1.412	1.211	1.130	1.041	1.025	1.010	1.014	1.012	4.003
2008	2.318	1.373	1.216	1.108	1.053	1.034	1.032	1.013	1.010	4.042
2009	2.354	1.401	1.234	1.131	1.059	1.042	1.026	1.018	1.014	4.193
2010	2.320	1.412	1.162	1.097	1.072	1.041	1.024	1.019	1.000	4.258
2011	2.312	1.365	1.183	1.128	1.068	1.040	1.018	1.005	0.999	4.467
2012	2.105	1.395	1.232	1.090	1.067	1.041	1.023	1.014	1.015	4.461
2013	2.234	1.437	1.177	1.100	1.056	1.036	1.016	1.007	1.010	3.777
2014	2.415	1.446	1.201	1.097	1.055	1.017	1.012	1.012	1.008	4.045
2015	2.355	1.525	1.182	1.085	1.044	1.039	1.034	1.003	1.008	4.824
2016	2.383	1.416	1.198	1.104	1.053	1.050	1.023	1.015		4.368
2017	1.899	1.486	1.201	1.112	1.056	1.045	1.029			4.798
2018	2.179	1.382	1.216	1.150	1.070	1.063				3.485
2019	2.300	1.413	1.240	1.110	1.075					4.207
2020	1.933	1.382	1.226	1.132						4.216
2021	1.831	1.426	1.254							3.694
2022	2.314	1.488								3.609
2023	2.265									4.489
2024										4.781

Source: NAIC P&C Industry Other Liability Claims Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

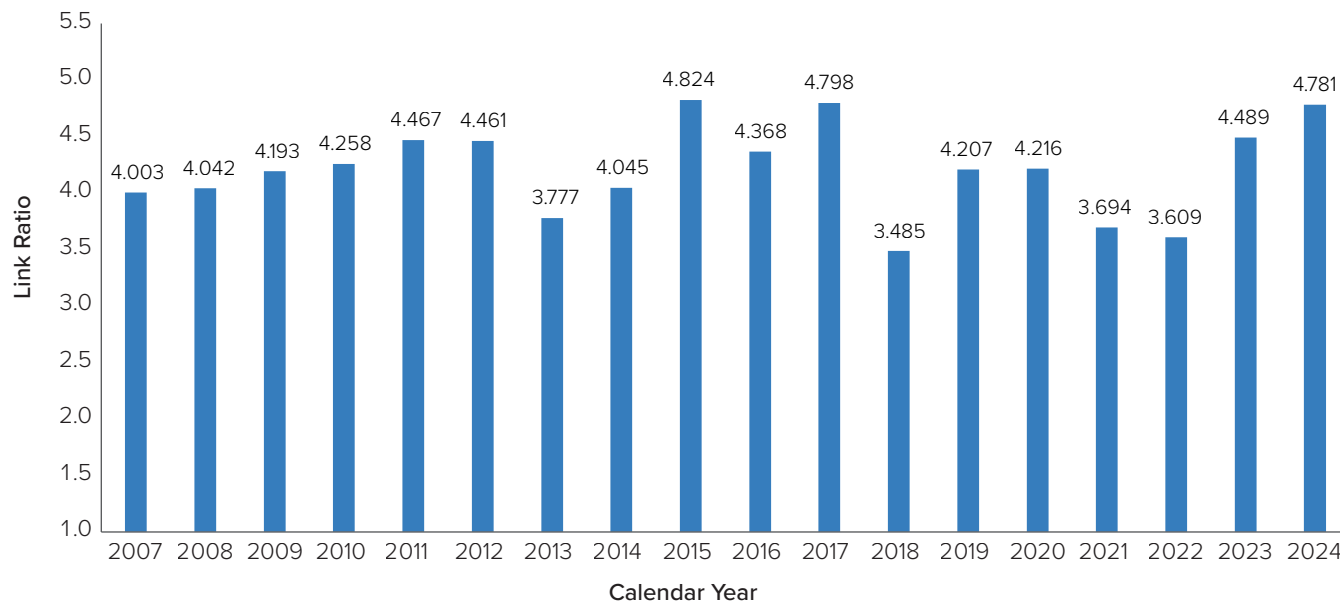
There does not appear to be the steady increase of factors that we have seen in other lines. Case-incurred LDFs, though, are generally increasing, though by a smaller amount than we have seen in other lines. These facts are best illustrated with Figures 45 and 46.

Figure 45: Net Paid Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Other Liability Claims-Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

Figure 46: Net Case-Incurred Loss & DCC CYR 12 - 60 Loss Development Factors - PC Industry



Source: NAIC P&C Industry Other Liability Claims-Made Schedule P data accessed July 2025, sourced from S&P Global Market Intelligence.

The paid CYR 12-60 LDFs in Figure 45 fluctuate but show no general rising trend. The case-incurred CYR 12-60 LDFs in Figure 46 are higher in 2024 than the years immediately preceding, but not as high as in 2015 and 2017.

It could be the case that inflation hasn't greatly affected the line. It is also possible that the line is not consistent in its heterogeneity – that the “mix of business” has changed over time. The line is also much smaller than other lines we have examined. Booked ultimate loss and DCC in 2024 was \$20.8 billion, about a third less than the next smallest line we have examined so far.

Figure 47 shows that from 2015 to 2024 losses emerged slightly faster than expected. On a paid basis over the period, losses were 2.1% above expected. On a case-incurred basis, they were 3.4% above expectations. Both of these are lower than comparable data from the other lines studied. It is notable that the two most recent years had emergence more than 10% above expected.

Figure 47: Actual vs Expected Net Loss & DCC Link Ratio - PC Industry (\$ millions)

Calendar Year	Paid Emergence on Prior Accident Years through 120 Months				Case-Incurred Emergence on Prior Accident Years through 120 Months			
	Expected	Actual	Variance	% Variance	Expected	Actual	Variance	% Variance
2015	7,616	9,864	2,248	29.5%	6,866	8,330	1,464	21.3%
2016	8,906	8,877	-29	-0.3%	7,394	7,701	308	4.2%
2017	9,724	9,348	-377	-3.9%	8,156	8,746	590	7.2%
2018	10,094	9,191	-903	-8.9%	9,428	7,630	-1,798	-19.1%
2019	9,750	9,349	-401	-4.1%	9,110	8,866	-244	-2.7%
2020	10,499	10,404	-95	-0.9%	9,602	9,137	-465	-4.8%
2021	12,140	9,962	-2,178	-17.9%	9,962	9,694	-268	-2.7%
2022	10,856	11,242	386	3.6%	10,007	10,181	174	1.7%
2023	10,423	11,818	1,395	13.4%	9,515	10,570	1,056	11.1%
2024	11,484	13,557	2,073	18.0%	10,892	13,123	2,231	20.5%
2015 to 2024	101,492	103,612	2,120	2.1%	90,932	93,979	3,047	3.4%
2015 to 2019	46,090	46,629	539	1.2%	40,954	41,273	319	0.8%
2020 to 2024	55,402	56,983	1,582	2.9%	49,978	52,706	2,728	5.5%

Source: Analysis by Insurance Information Institute

Figure 48 calculates the impact of increasing inflation: between \$15.7 billion and \$16.4 billion, or between 10.1% and 10.6% of booked losses over the 2015-2024 period. This is a higher percentage than Personal Auto Liability but less than Commercial Auto Liability and Other Liability – Occurrence.

Figure 48: Estimated Impact of Increasing Inflation (\$ millions)

Year	A		B		C		D = A*(Alternative LDF)		E = B*(Alternative LDF)		F = D - C		G = E - C	
	Per 12/31/YYYY Schedule P		Per 12/31/YYYY Schedule P		Per 12/31/2024 Schedule P		Implied Net Ultimate Loss & DCC using Alternative LDFs		Variance to Booked					
	Net Paid Loss & DCC @ 12 months	Net Case Incurred Loss & DCC @ 12 months	Net Ultimate Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)	3yr Weighted Average as of 12/31/2008 (Case-Incurred)
2015	664	1,884	10,171	9,484	9,208	-687	-962							
2016	805	2,170	11,685	11,504	10,606	-181	-1,080							
2017	684	2,453	11,185	9,776	11,992	-1,409	807							
2018	839	2,920	15,170	11,996	14,273	-3,174	-897							
2019	905	2,769	14,999	12,939	13,536	-2,060	-1,463							
2020	1,304	3,263	15,313	18,628	15,953	3,315	640							
2021	1,011	2,960	16,035	14,450	14,468	-1,585	-1,567							
2022	858	2,611	19,067	12,256	12,764	-6,812	-6,303							
2023	1,184	3,567	20,931	16,920	17,439	-4,011	-3,492							
2024	1,468	3,980	20,808	20,971	19,457	163	-1,351							
Total	9,722	28,577	155,364	138,924	139,697	-16,440	-15,667							

% Variance -10.6% -10.1%

Source: Analysis by Insurance Information Institute

Figure 49 calculates the average annual impact of increasing inflation to be 0.8% on both a paid and case-incurred basis, comparable to the impact on Personal Auto Liability.

Figure 49: Implied Average Annual Impact of Increasing Inflation (\$ millions)

	A	B	C	$D = (A/B)^{\wedge} (1/(Year-2008))-1$	$E = (A/C)^{\wedge} (1/(Year-2008))-1$
	Per 12/31/YYYY Schedule P	Implied Net Ultimate Loss & DCC using Alternative LDF		Implied Average Annual Impact of Increasing Inflation	
Year	Net Paid Loss & DCC	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)	3yr Weighted Average as of 12/31/2008 (Paid)	3yr Weighted Average as of 12/31/2008 (Case Incurred)
2015	10,171	9,484	9,208	1.0%	1.4%
2016	11,685	11,504	10,606	0.2%	1.2%
2017	11,185	9,776	11,992	1.5%	-0.8%
2018	15,170	11,996	14,273	2.4%	0.6%
2019	14,999	12,939	13,536	1.4%	0.9%
2020	15,313	18,628	15,953	-1.6%	-0.3%
2021	16,035	14,450	14,468	0.8%	0.8%
2022	19,067	12,256	12,764	3.2%	2.9%
2023	20,931	16,920	17,439	1.4%	1.2%
2024	20,808	20,971	19,457	0.0%	0.4%
Total	155,364	138,924	139,697	0.8%	0.8%

Source: Analysis by Insurance Information Institute

Quantitatively our research looks for consistent changes in premium and losses, consistent changes in LDFs, and consistent trends between expected and actual losses. These tools might not be refined enough to capture the dynamics of smaller lines of business, particularly if their underlying risks are heterogeneous.

The similarities of the calculated results to Personal Auto Liability are instructive. The models calculate a similar impact of increasing inflation – around 10% - and both show an average annual impact of around 0.8%.

But Personal Auto Liability is a much larger line of business, and its risks are homogenous – damages and injuries arising from a specific type of occurrence. Its loss development patterns fluctuate less and increase consistently from year to year. Its LDFs are rising consistently, and losses are consistently emerging faster than expected.

We have much more confidence in our quantitative estimates for Personal Auto Liability than for Other Liability – Claims-Made. We do not suggest that this line has escaped increasing inflation, but we do recognize that our tools do not capture and quantify it as well here as elsewhere.

An analogous review was taken for Product Liability – Claims Made. However, the booked ultimate loss and DCC in 2024 was only \$324.2 million, making this line considerably smaller in scale relative to the other lines reviewed. Any effort to quantitatively assess increasing inflation on this line would have lacked sufficient credibility. Therefore, this attempt was discontinued with the understanding the results would have been inconclusive or immaterial in comparison to the other lines.

Conclusion

This study reinforces the significant and persistent impact of increasing inflation—both social and economic—on insurance liability across multiple lines of business. From 2015 to 2024, inflationary pressures have added tens of billions of dollars of losses, resulting in higher premiums to consumers, with the most pronounced effects observed in Commercial Auto Liability and Other Liability – Occurrence.

Across all lines, the study finds that severity, not frequency, is the primary driver of inflationary loss increases. This is consistent with broader economic trends, including the sharp rise in the Consumer Price Index from 2021 to 2023. Though economic inflation has leveled off, the inflationary environment insurers face remains elevated.

As insurers navigate this complex landscape, understanding the multifaceted nature of inflation and its evolving influence on claims development will be critical for managing insurance operations. Until the inflationary environment ebbs, consumers will face the prospect of ever-rising premiums.

Appendix I: Data Background

We use Annual Statement data for Personal Auto Liability and Commercial Auto Liability as of December 31, 2024, specifically from Schedule P, which is submitted to the National Association of Insurance Commissioners. To extend the triangle history from 10 to 20 years, we also used older Schedule P evaluations. Data was obtained from S&P Global Market Intelligence, which compiles individual company submissions and adjusts for intragroup reinsurance cessions.

We employed paid loss and defense and cost containment triangles from Schedule P, Part 3. To develop case-incurred loss triangles, we subtracted Schedule P, Part 4 (incurred but not reported losses and defense and cost containment expenses) from Schedule P, Part 2 (incurred losses and defense and cost containment expenses). We also reviewed claim counts reported in Schedule P, Part 5.

Annual Statement data has specific characteristics that must be accounted for in any analysis. Losses are net of reinsurance and influenced by the decisions of individual companies. Issues such as homogeneity, credibility, development patterns, reinsurance, and operational changes are significant at the company level but have a reduced impact when analyzing industrywide data. Lynch and Moore have discussed those issues in depth elsewhere as noted in the report.

Claim counts are reported differently by each company, making absolute calculations challenging to interpret. However, we believe the data reveals trends over time. We assume individual company changes have a minimal effect at a national industry level.

As an estimate of exposures, we use data from the Bureau of Labor Statistics on nominal Gross Domestic Product, assuming that property/casualty insurance exposures grow at a similar rate to the economy.

Economic inflation is represented by the Consumer Price Index for All Urban Consumers. (CPI-All Urban) as calculated by the Bureau of Labor Statistics. This study uses the average index for a given year. Previous studies used the year-end index. Because insurers pay their claims throughout the year and not at year-end, we believe the index average better reflects insurance company operations.

We seek patterns in age-to-age loss development trends. Basic actuarial methods, such as the chain-ladder technique, assume predictable movement of losses from unreported to reported. Actuaries assume loss development is a random process with a stable mean. Continually rising link ratios indicate increasing inflation.