2022 MORTGAGE GUARANTY REPORT

Missouri Department of Commerce & Insurance



Missouri Department of Commerce & Insurance

TABLE OF CONTENTS

| 1 DEFINITIONS | 2 |
|--|------|
| 2 EXECUTIVE SUMMARY | 3 |
| 2.1 Background | 3 |
| 2.2 Data Issues | 3 |
| 2.3 Current Trends | 3 |
| 3 AGGREGATE EXPERIENCE: 2008-2022 | 5 |
| 4 RESIDENTIAL MORTGAGE GUARANTY INSURANCE BY COMPANY | 8 |
| 5 PREMIUM RANKING BY COMPANY | . 48 |

1 Definitions

Premium earned - The amount of premium associated with coverage in effect during a year. For example, if a one year policy has been in effect 6 months, half of the total premium has been earned.

Losses paid - The amount paid in losses for claims that have been filed.

Change in outstanding reserve - The outstanding reserve is an amount representing actual or potential liabilities kept by an insurer to cover claims reported but not yet paid. The amount reported is the increase or change from last year's reserve amount compared to this year.

Change in IBNR reserve - IBNR (incurred but not yet reported) reserve is a reserve set up to pay for losses that have already occurred, but have not yet been reported to the insurer. The IBNR reserve is estimated based on actuarial projections. The amount reported is the change from the prior year's reserve.

Change in contingency reserve – Due to the possibility of catastrophic losses, mortgage guaranty insurers are required by law to maintain a contingency reserve. The reserve is equal to 50 percent of premium, and must be retained for 10 years unless used to cover losses exceeding 35 percent of premium. The amount reported is the change from the prior year's reserve.

True loss ratio – The true loss ratio is the ratio of incurred losses to premium. Incurred losses equal the amount paid in losses in a given year plus changes in loss reserves.

(Losses Paid + Change in Outstanding Reserve + Change in IBNR Reserve)

Premium Earned

Loaded loss ratio – The loaded loss ratio adjusts the true loss ratio to reflect changes in the statutorily required contingency reserves. It is equal to

(Losses Paid + Change in Outstanding Reserve + Change in IBNR Reserve + Change in Contingency Reserve)

Premium Earned

2 Executive Summary

2.1 Background

Residential mortgage guaranty insurance provides protection to lenders against default by borrowers who initially have less than 20% equity interest in the mortgaged property. This form of insurance is designed to stimulate home ownership by giving consumers with less funds available for down payments access to credit markets. Generally, lenders require mortgage guaranty insurance for loans exceeding 80% of the value of a home.

The mortgage guaranty insurance market is sensitive to general macroeconomic conditions associated with loan defaults, such as interest rates and rates of unemployment. During periods of significant economic contraction in the finance or housing sectors, insurers may be subject to catastrophic losses. Indeed, the entire industry was decimated in the 1930s, and the private market for mortgage insurance did not recover until the mid-1950s.

Due to their exposure to catastrophic risk, mortgage guaranty insurers have been subject to regulatory and capital requirements atypical for most other lines of business.

- 1. **Monoline Requirement:** To ensure that reserves are adequate, mortgage guaranty insurers are prohibited from selling other kinds of insurance. Reserves are dedicated solely to covering default losses and are not subject to depletion by losses in other lines.
- 2. Capital Requirements: All insurers are required to maintain reserve capital to cover claims. Generally, reserve amounts are established on pending claims and set by actuaries using statistical techniques to project future loss trends. In addition to such reserves, mortgage guaranty insurers are required by law to maintain a contingency reserve equal to 50% of premium. Due to the long-term nature of the risk assumed (i.e. some portion of the life of a mortgage), the contingency reserve must be held for 10 years unless it is used to cover losses exceeding 35% of premium in a given year. See definitions page for a discussion of the different types of reserves.

2.2 Data Issues

Reserves are typically recorded as a liability on insurers' financial annual statements. However, depending on a carrier's state of domicile, changes in the contingency reserve may or may not be recorded as a loss in a given year. Thus, standard measures of market performance, such as loss ratios, may be somewhat misleading when derived from the annual statements, in- as-much as these measures combine dissimilar data. For this reason, the Missouri Department of Commerce & Insurance (DCI) collects mortgage guaranty data in a way in which different reserve types are tracked separately so that loss data may be structured in a consistent manner across all companies. Therefore, data presented in this report may vary somewhat from data obtained from the annual statements.

2.3 Current Trends

The mortgage guaranty market has grown very significantly since the early 1980s. Between 1992 and 2022 earned premium in Missouri increased by 400%, from \$19.6 million to \$98.1 million. This growth was in part fueled by declining interest rates, federal programs designed to increase homeownership, an increase in the size and price of homes, greater willingness to finance buyers with lower down payments, and simple population growth.

In 2010, mortgage guaranty insurers paid out their highest losses in Missouri in over 30 years, and losses remained high through 2012. In Missouri between 1992 and 2001, insurers in no year incurred losses exceeding 30% of premium. In 2021, losses equaled 7.5% of premium, dropping to -11.8% in 2022. For the US as a whole among these same insurers, losses equaled 5.5% in 2021, dropping to -21.3% of premium in 2022. Elevated losses in 2020 were no doubt associated with the Covid-19 pandemic and associated economic downturn.

MO & US LOSS RATIOS

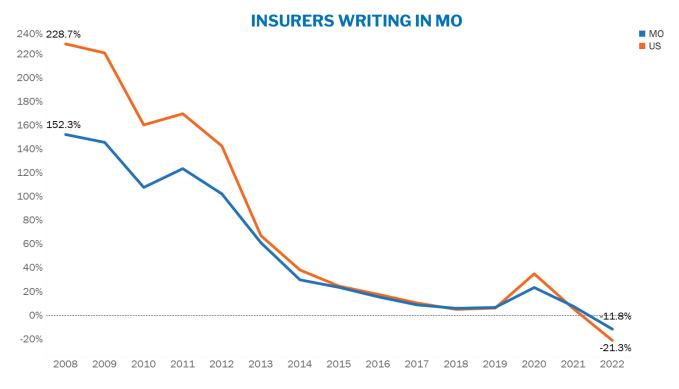


Figure 1

Losses were partially covered by drawing down contingency reserves (see discussion above). Between 2008 and 2011, Missouri, mortgage guaranty business in Missouri incurred \$513.3 million in losses, and for the first three of those years contingency reserves were drawn down by \$150.9 million. Contingency reserves were rebuilt in subsequent years. Losses measured without regard to the contingency reserve is call the "true loss ratio" in this report, and is the standard measure of loss used for other lines of business. In addition, a "loaded loss ratio" reflects changes in the contingency reserve (see definitions page).

This report was compiled using information submitted by the insurance companies. While every effort is made to ensure accurate data, the accuracy of this report is dependent upon each company's data. The charts and graphs in Section I utilize data submitted by all mortgage guaranty insurers writing in Missouri for 2008 through 2022. Section II is based on companies actively writing in Missouri for calendar year 2022. Section III ranks mortgage guaranty insurers by 2022 premium earned.

Any questions regarding this report should be directed to the Statistics Section, Missouri Department of Commerce & Insurance, P.O. Box 690, Jefferson City, Missouri 65102-0690. Also, additional copies of this report can be received by sending a written request, with payment of \$35 per copy, to this same address.

3 Aggregate Experience: 2008-2022

RESIDENTIAL MORTGAGE GUARANTY BUSINESS

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-----------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$113,640,286 | \$80,367,901 | \$76,797,779 | \$15,884,366 | \$-29,132,258 | 126.6% | 152.3% |
| 2009 | \$104,335,510 | \$89,231,495 | \$57,000,995 | \$5,733,326 | \$-67,221,149 | 81.2% | 145.7% |
| 2010 | \$92,184,015 | \$146,078,560 | \$-39,666,216 | \$-7,130,194 | \$-54,552,087 | 48.5% | 107.7% |
| 2011 | \$72,060,160 | \$122,845,414 | \$-27,583,302 | \$-6,271,757 | \$2,981,770 | 127.6% | 123.5% |
| 2012 | \$69,989,348 | \$93,525,094 | \$-20,224,908 | \$-1,728,088 | \$-7,700,208 | 91.3% | 102.3% |
| 2013 | \$70,777,206 | \$68,507,172 | \$-18,966,660 | \$-6,305,439 | \$7,712,167 | 72.0% | 61.1% |
| 2014 | \$68,324,962 | \$40,915,643 | \$-14,996,836 | \$-5,576,391 | \$19,670,767 | 58.6% | 29.8% |
| 2015 | \$75,582,948 | \$30,892,609 | \$-9,575,190 | \$-3,582,333 | \$24,274,800 | 55.6% | 23.5% |
| 2016 | \$82,772,691 | \$23,565,960 | \$-8,848,158 | \$-1,900,982 | \$24,776,761 | 45.4% | 15.5% |
| 2017 | \$82,845,191 | \$17,158,527 | \$-9,013,100 | \$-970,318 | \$22,974,400 | 36.4% | 8.7% |
| 2018 | \$89,481,971 | \$10,622,396 | \$-4,116,619 | \$-1,338,235 | \$27,566,013 | 36.6% | 5.8% |
| 2019 | \$99,837,431 | \$7,341,388 | \$-1,231,104 | \$384,933 | \$31,677,060 | 38.2% | 6.5% |
| 2020 | \$106,789,127 | \$4,931,723 | \$15,614,406 | \$4,324,569 | \$36,828,778 | 57.8% | 23.3% |
| 2021 | \$101,338,463 | \$2,397,565 | \$5,208,223 | \$2,582 | \$32,020,107 | 39.1% | 7.5% |
| 2022 | \$98,116,153 | \$1,622,556 | \$-10,068,873 | \$-3,082,419 | \$30,297,939 | 19.1% | -11.8% |
| Total | \$1,328,075,462 | \$740,004,003 | \$-9,669,563 | \$-11,556,380 | \$102,174,860 | 61.8% | 54.1% |

RESIDENTIAL MORTGAGE GUARANTY BUSINESS

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|------------------|------------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$6,329,873,951 | \$4,601,001,664 | \$7,992,325,863 | \$1,880,478,394 | \$-2,466,094,010 | 189.7% | 228.7% |
| 2009 | \$5,597,402,067 | \$6,777,454,694 | \$5,130,932,845 | \$463,712,371 | \$-3,996,315,151 | 149.6% | 221.0% |
| 2010 | \$4,875,021,394 | \$10,533,535,676 | \$-2,241,570,511 | \$-473,330,172 | \$-2,265,069,430 | 113.9% | 160.4% |
| 2011 | \$3,910,574,592 | \$8,674,492,073 | \$-1,759,174,452 | \$-276,682,112 | \$-6,311,918 | 169.6% | 169.8% |
| 2012 | \$3,585,577,037 | \$6,910,677,805 | \$-1,635,942,593 | \$-159,621,873 | \$-326,532,748 | 133.6% | 142.7% |
| 2013 | \$3,679,290,845 | \$5,541,525,096 | \$-2,411,389,346 | \$-662,441,274 | \$347,668,121 | 76.5% | 67.1% |
| 2014 | \$3,637,630,317 | \$3,196,904,863 | \$-1,245,926,444 | \$-565,300,589 | \$1,228,319,808 | 71.9% | 38.1% |
| 2015 | \$4,024,058,057 | \$2,573,828,122 | \$-1,101,407,179 | \$-486,543,028 | \$1,752,815,273 | 68.1% | 24.5% |
| 2016 | \$4,410,626,476 | \$1,809,661,253 | \$-763,565,467 | \$-271,764,277 | \$1,839,474,657 | 59.3% | 17.6% |
| 2017 | \$4,640,545,455 | \$1,445,392,633 | \$-743,068,866 | \$-226,331,478 | \$2,519,502,331 | 64.6% | 10.3% |
| 2018 | \$5,083,868,607 | \$912,192,193 | \$-538,952,930 | \$-124,259,239 | \$2,100,983,639 | 46.2% | 4.9% |
| 2019 | \$5,761,747,351 | \$599,556,838 | \$-252,112,144 | \$-3,586,691 | \$2,447,703,440 | 48.4% | 6.0% |
| 2020 | \$6,173,952,163 | \$335,732,382 | \$1,327,615,958 | \$488,283,812 | \$2,667,867,462 | 78.1% | 34.9% |
| 2021 | \$5,955,176,202 | \$157,400,620 | \$239,551,380 | \$-66,824,887 | \$2,322,363,683 | 44.5% | 5.5% |
| 2022 | \$5,766,570,113 | \$86,028,804 | \$-906,615,055 | \$-408,388,929 | \$2,289,196,639 | 18.4% | -21.3% |
| Total | \$73,431,914,627 | \$54,155,384,716 | \$1,090,701,059 | \$-892,599,972 | \$10,455,571,796 | 88.3% | 74.0% |

MO & US LOSS RATIOS

INSURERS WRITING IN MO

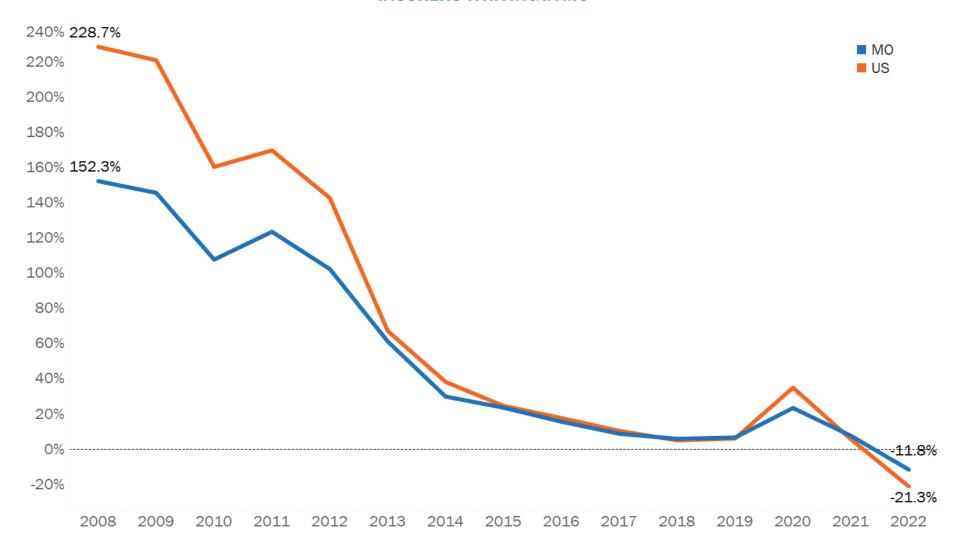


Figure 2

4 Residential Mortgage Guaranty Insurance by Company

ARCH MORTGAGE GUARANTY COMPANY

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| 2009 | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| 2010 | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| 2011 | \$18,700 | \$0 | \$0 | \$0 | \$0 | 0.0% | 0.0% |
| 2012 | \$31,143 | \$0 | \$0 | \$0 | \$0 | 0.0% | 0.0% |
| 2013 | \$20,431 | \$0 | \$0 | \$0 | \$0 | 0.0% | 0.0% |
| 2014 | \$15,845 | \$0 | \$26,904 | \$2,071 | \$0 | 182.9% | 182.9% |
| 2015 | \$14,013 | \$0 | \$6,389 | \$-406 | \$0 | 42.7% | 42.7% |
| 2016 | \$15,317 | \$36,992 | \$-28,243 | \$-1,414 | \$0 | 47.9% | 47.9% |
| 2017 | \$43,290 | \$0 | \$-5,050 | \$-251 | \$0 | (12.2%) | (12.2%) |
| 2018 | \$29,349 | \$0 | \$0 | \$0 | \$1,197 | 4.1% | 0.0% |
| 2019 | \$40,484 | \$0 | \$12,559 | \$0 | \$1,874 | 35.7% | 31.0% |
| 2020 | \$51,373 | \$0 | \$-10,208 | \$54,919 | \$2,501 | 91.9% | 87.0% |
| 2021 | \$41,480 | \$0 | \$-2,351 | \$-54,919 | \$652 | (136.5%) | (138.1%) |
| 2022 | \$43,384 | \$0 | \$0 | \$0 | \$-1,231 | (2.8%) | 0.0% |
| Total | \$364,809 | \$36,992 | \$0 | \$0 | \$4,993 | 11.5% | 10.1% |

ARCH MORTGAGE GUARANTY COMPANY

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$44,374 | \$0 | \$0 | \$0 | \$427,098 | 962.5% | 0.0% |
| 2009 | \$20,581 | \$0 | \$0 | \$0 | \$-61,966 | -301.1% | 0.0% |
| 2010 | \$2,697 | \$0 | \$0 | \$0 | \$-58,995 | -2187.4% | 0.0% |
| 2011 | \$262,117 | \$0 | \$0 | \$0 | \$72,558 | 27.7% | 0.0% |
| 2012 | \$600,990 | \$0 | \$0 | \$0 | \$265,783 | 44.2% | 0.0% |
| 2013 | \$535,086 | \$0 | \$43,582 | \$913 | \$224,455 | 50.3% | 8.3% |
| 2014 | \$406,773 | \$0 | \$-15,941 | \$2,198 | \$166,365 | 37.5% | -3.4% |
| 2015 | \$342,437 | \$0 | \$39,326 | \$1,196 | \$-4,294 | 10.6% | 11.8% |
| 2016 | \$1,004,383 | \$36,992 | \$194,917 | \$9,657 | \$28,355 | 26.9% | 24.1% |
| 2017 | \$1,663,047 | \$96,888 | \$-142,181 | \$2,368 | \$63,089 | 1.2% | -2.6% |
| 2018 | \$1,972,681 | \$499 | \$156,569 | \$8,440 | \$80,439 | 12.5% | 8.4% |
| 2019 | \$2,556,396 | \$129,806 | \$-145,143 | \$5,871 | \$118,327 | 4.3% | -0.4% |
| 2020 | \$2,916,182 | \$20,815 | \$498,266 | \$25,189 | \$141,951 | 23.5% | 18.7% |
| 2021 | \$3,382,040 | \$0 | \$140,538 | \$32,118 | \$53,169 | 6.7% | 5.1% |
| 2022 | \$3,997,671 | \$0 | \$-96,684 | \$-28,210 | \$-113,451 | -6.0% | -3.1% |
| Total | \$19,707,455 | \$285,000 | \$673,249 | \$59,740 | \$1,402,883 | 12.3% | 5.2% |

ARCH MORTGAGE GUARANTY COMPANY

LOSS RATIO, MISSOURI

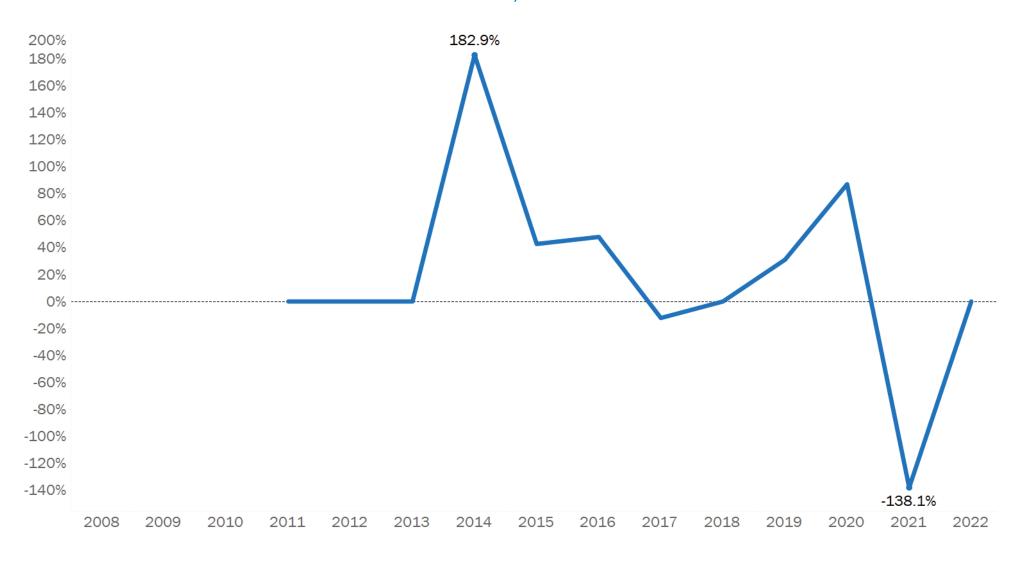


Figure 3

ARCH MORTGAGE GUARANTY COMPANY

LOSS RATIO, NATIONWIDE

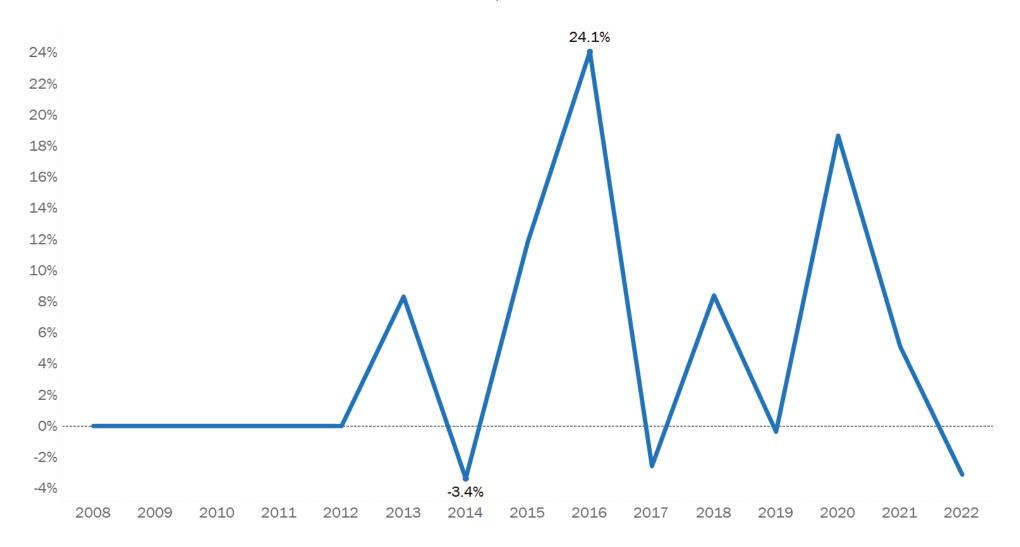


Figure 4

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|--------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$2,060,082 | \$497,799 | \$670,854 | \$99,983 | \$4,451,229 | 277.7% | 61.6% |
| 2009 | \$2,171,831 | \$871,141 | \$546,997 | \$-26,925 | \$-1,047,417 | 15.8% | 64.1% |
| 2010 | \$2,019,874 | \$2,018,446 | \$223,861 | \$6,972 | \$-1,013,218 | 61.2% | 111.4% |
| 2011 | \$1,947,979 | \$2,313,596 | \$81,276 | \$22,581 | \$0 | 124.1% | 124.1% |
| 2012 | \$1,943,198 | \$1,729,404 | \$-481,179 | \$-23,991 | \$0 | 63.0% | 63.0% |
| 2013 | \$2,127,827 | \$1,512,107 | \$-44,333 | \$13,596 | \$0 | 69.6% | 69.6% |
| 2014 | \$2,050,587 | \$725,412 | \$-189,927 | \$-29,772 | \$0 | 24.7% | 24.7% |
| 2015 | \$2,259,064 | \$736,545 | \$-260,274 | \$-77,417 | \$0 | 17.7% | 17.7% |
| 2016 | \$3,361,723 | \$355,888 | \$-276,185 | \$-16,636 | \$0 | 1.9% | 1.9% |
| 2017 | \$5,670,276 | \$437,724 | \$-167,007 | \$1,184 | \$0 | 4.8% | 4.8% |
| 2018 | \$10,348,568 | \$266,295 | \$149,742 | \$-12,596 | \$3,659,510 | 39.3% | 3.9% |
| 2019 | \$14,141,033 | \$88,871 | \$86,449 | \$46,768 | \$3,508,882 | 26.4% | 1.6% |
| 2020 | \$15,764,979 | \$286,356 | \$3,223,876 | \$76,960 | \$2,719,147 | 40.0% | 22.8% |
| 2021 | \$16,937,927 | \$72,934 | \$1,279,762 | \$-369,257 | \$2,455,299 | 20.3% | 5.8% |
| 2022 | \$17,371,033 | \$209,966 | \$-1,852,350 | \$-75,209 | \$1,807,288 | 0.5% | (9.9%) |
| Total | \$100,175,981 | \$12,122,484 | \$2,991,562 | \$-363,759 | \$16,540,720 | 31.2% | 14.7% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$97,727,555 | \$24,909,460 | \$44,666,824 | \$7,192,522 | \$211,160,392 | 294.6% | 78.6% |
| 2009 | \$103,422,185 | \$51,778,653 | \$88,010,628 | \$4,580,025 | \$-49,458,207 | 91.8% | 139.6% |
| 2010 | \$95,342,834 | \$121,083,877 | \$16,421,243 | \$125,779 | \$-48,860,484 | 93.1% | 144.4% |
| 2011 | \$90,845,386 | \$126,595,136 | \$-19,492,767 | \$-900,001 | \$-8,422,268 | 107.6% | 116.9% |
| 2012 | \$91,352,032 | \$118,082,069 | \$-12,544,715 | \$-1,600,000 | \$-13,155,352 | 99.4% | 113.8% |
| 2013 | \$97,932,251 | \$101,814,082 | \$-31,653,064 | \$-2,550,000 | \$14,835,692 | 84.2% | 69.0% |
| 2014 | \$102,215,572 | \$67,120,427 | \$-17,212,285 | \$-2,377,644 | \$15,890,847 | 62.0% | 46.5% |
| 2015 | \$118,220,381 | \$41,222,338 | \$-13,286,519 | \$-3,566,937 | \$27,284,047 | 43.7% | 20.6% |
| 2016 | \$167,825,094 | \$27,955,588 | \$-20,550,401 | \$-1,362,739 | \$36,848,064 | 25.6% | 3.6% |
| 2017 | \$294,759,155 | \$19,149,135 | \$671,174 | \$2,722,192 | \$734,612,259 | 256.9% | 7.6% |
| 2018 | \$500,147,741 | \$12,312,888 | \$4,268,625 | \$-3,803,026 | \$176,864,635 | 37.9% | 2.6% |
| 2019 | \$715,174,810 | \$12,741,532 | \$7,587,897 | \$2,590,570 | \$177,459,733 | 28.0% | 3.2% |
| 2020 | \$839,517,151 | \$13,372,681 | \$251,759,546 | \$8,588,728 | \$144,800,095 | 49.9% | 32.6% |
| 2021 | \$899,055,882 | \$5,982,501 | \$105,396,045 | \$-29,413,405 | \$129,259,126 | 23.5% | 9.1% |
| 2022 | \$911,859,075 | \$3,255,616 | \$-169,584,553 | \$-4,514,450 | \$95,609,354 | -8.3% | -18.7% |
| Total | \$5,125,397,104 | \$747,375,983 | \$234,457,678 | \$-24,288,386 | \$1,644,727,933 | 50.8% | 18.7% |

LOSS RATIO, MISSOURI

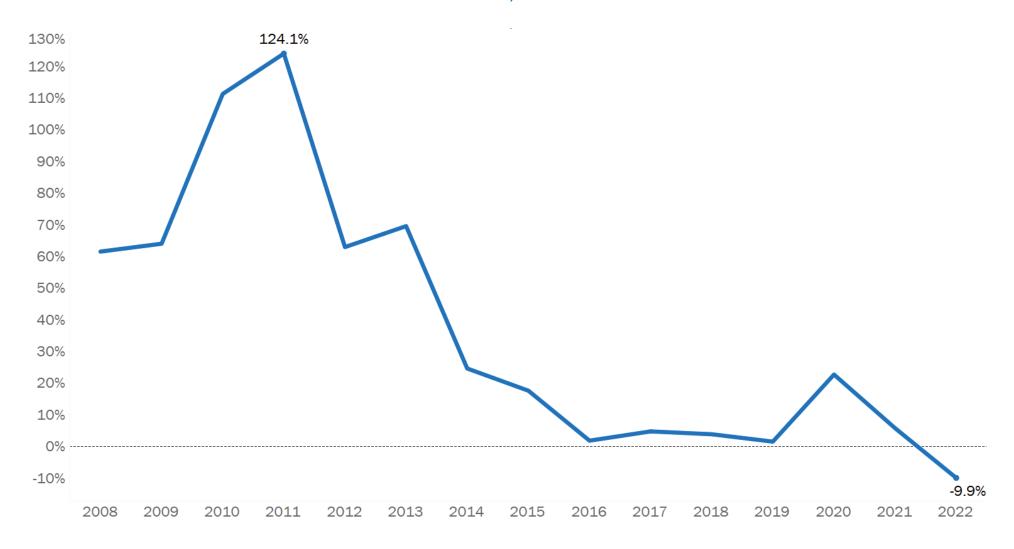


Figure 5

LOSS RATIO, NATIONWIDE

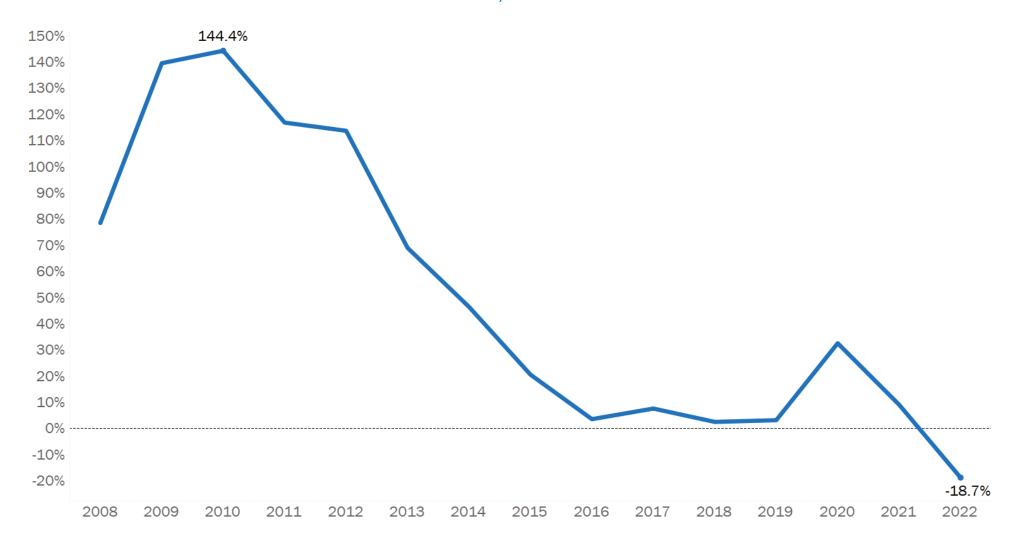


Figure 6

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$18,112,605 | \$10,279,850 | \$11,675,054 | \$1,066,460 | \$12,741,514 | 197.4% | 127.1% |
| 2009 | \$16,363,864 | \$14,318,851 | \$7,936,832 | \$287,047 | \$-17,201,190 | 32.6% | 137.8% |
| 2010 | \$14,386,925 | \$23,190,404 | \$-3,389,404 | \$966,571 | \$-19,922,470 | 5.9% | 144.4% |
| 2011 | \$13,113,091 | \$19,857,423 | \$209,613 | \$92,805 | \$-2,015,258 | 138.4% | 153.7% |
| 2012 | \$11,407,801 | \$18,335,371 | \$-7,614,000 | \$-40,650 | \$0 | 93.6% | 93.6% |
| 2013 | \$9,081,001 | \$12,160,780 | \$-2,648,831 | \$-188,520 | \$467,879 | 107.8% | 102.7% |
| 2014 | \$11,735,038 | \$8,680,390 | \$-3,363,270 | \$-906,837 | \$2,719,268 | 60.8% | 37.6% |
| 2015 | \$12,222,037 | \$7,933,425 | \$-3,777,243 | \$-227,215 | \$5,463,177 | 76.8% | 32.1% |
| 2016 | \$13,221,723 | \$4,956,669 | \$-2,085,495 | \$-63,174 | \$6,001,752 | 66.6% | 21.2% |
| 2017 | \$13,396,466 | \$3,686,392 | \$-1,606,654 | \$-13,639 | \$6,060,231 | 60.7% | 15.4% |
| 2018 | \$13,929,429 | \$2,251,058 | \$-1,208,368 | \$19,159 | \$6,271,544 | 52.6% | 7.6% |
| 2019 | \$16,017,119 | \$1,413,159 | \$-655,614 | \$-9,236 | \$8,028,233 | 54.8% | 4.7% |
| 2020 | \$18,056,453 | \$966,076 | \$3,131,066 | \$24,856 | \$8,611,284 | 70.5% | 22.8% |
| 2021 | \$17,097,538 | \$469,236 | \$1,171,859 | \$-48,518 | \$8,650,061 | 59.9% | 9.3% |
| 2022 | \$15,945,910 | \$468,147 | \$-1,253,170 | \$124,100 | \$7,963,899 | 45.8% | (4.1%) |
| Total | \$214,087,000 | \$128,967,231 | \$-3,477,625 | \$1,083,209 | \$33,839,924 | 74.9% | 59.1% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|------------------|-----------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$804,552,101 | \$420,008,578 | \$994,532,326 | \$90,845,739 | \$-375,789,628 | 140.4% | 187.1% |
| 2009 | \$672,442,690 | \$914,149,910 | \$326,183,934 | \$11,796,904 | \$-706,851,065 | 81.1% | 186.2% |
| 2010 | \$603,496,846 | \$1,271,389,999 | \$211,368,524 | \$-60,276,874 | \$-835,699,636 | 97.2% | 235.7% |
| 2011 | \$563,424,628 | \$1,022,899,785 | \$134,914,399 | \$59,732,746 | \$-86,588,750 | 200.7% | 216.1% |
| 2012 | \$520,236,904 | \$1,071,311,966 | \$-455,848,813 | \$-2,433,716 | \$0 | 117.8% | 117.8% |
| 2013 | \$508,487,888 | \$840,556,045 | \$-439,178,350 | \$-31,256,728 | \$26,198,725 | 77.9% | 72.8% |
| 2014 | \$546,944,777 | \$592,632,491 | \$-223,422,701 | \$-60,241,354 | \$126,739,220 | 79.7% | 56.5% |
| 2015 | \$618,804,066 | \$526,621,908 | \$-295,717,705 | \$-17,788,521 | \$276,601,699 | 79.1% | 34.4% |
| 2016 | \$685,486,761 | \$359,242,314 | \$-200,728,281 | \$-6,080,489 | \$311,163,823 | 67.6% | 22.2% |
| 2017 | \$716,684,161 | \$278,037,218 | \$-174,062,930 | \$-942,500 | \$324,210,269 | 59.6% | 14.4% |
| 2018 | \$768,149,796 | \$187,422,592 | \$-152,295,816 | \$-2,183,627 | \$345,849,449 | 49.3% | 4.3% |
| 2019 | \$878,617,321 | \$105,390,551 | \$-59,065,866 | \$-2,142,096 | \$599,846,649 | 73.3% | 5.0% |
| 2020 | \$1,019,580,418 | \$52,985,482 | \$310,747,223 | \$3,836,775 | \$486,247,004 | 83.7% | 36.1% |
| 2021 | \$1,044,650,979 | \$33,153,935 | \$88,255,819 | \$-4,110,664 | \$523,015,431 | 61.3% | 11.2% |
| 2022 | \$1,014,906,653 | \$21,278,657 | \$-127,633,967 | \$7,863,109 | \$506,876,929 | 40.2% | -9.7% |
| Total | \$10,966,465,989 | \$7,697,081,431 | \$-61,952,204 | \$-13,381,296 | \$1,521,820,119 | 83.4% | 69.5% |

LOSS RATIO, MISSOURI

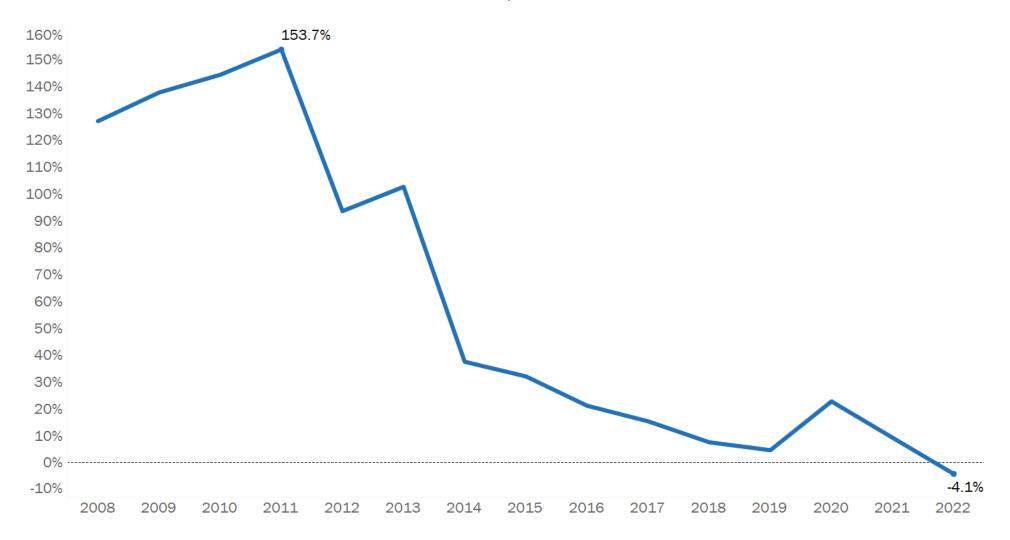


Figure 7

LOSS RATIO, NATIONWIDE

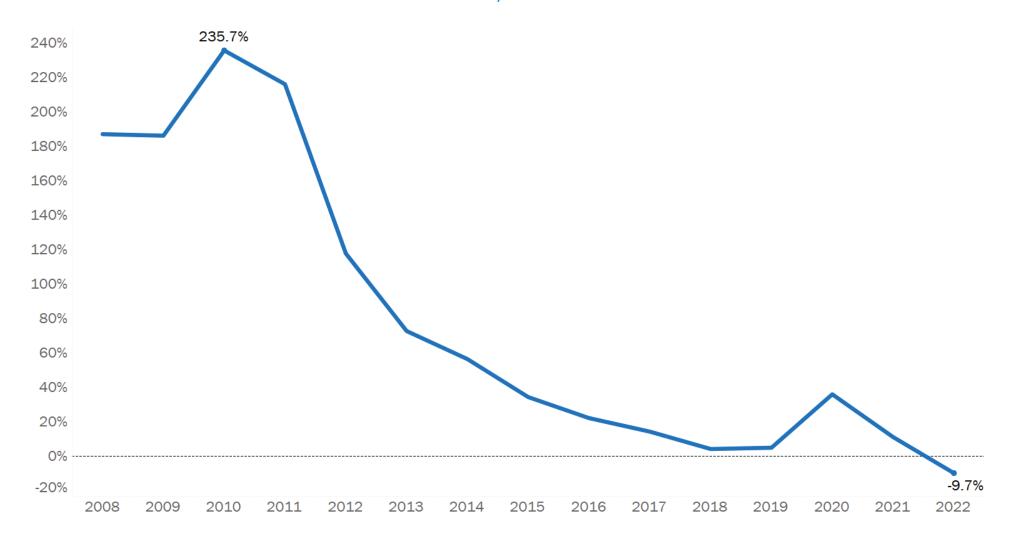


Figure 8

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2019 | \$632 | \$0 | \$0 | \$0 | \$316 | 50.0% | 0.0% |
| 2020 | \$90,339 | \$0 | \$0 | \$0 | \$45,170 | 50.0% | 0.0% |
| 2021 | \$155,596 | \$0 | \$0 | \$0 | \$77,798 | 50.0% | 0.0% |
| 2022 | \$232,973 | \$0 | \$83,677 | \$233 | \$116,487 | 86.0% | 36.0% |
| Total | \$479,540 | \$0 | \$83,677 | \$233 | \$239,771 | 67.5% | 17.5% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2019 | \$6,812 | \$0 | \$0 | \$0 | \$-155,657,692 | -2285051% | 0.0% |
| 2020 | \$541,852 | \$0 | \$39,669 | \$1,864 | \$384,154 | 78.6% | 7.7% |
| 2021 | \$1,814,403 | \$35,315 | \$13,831 | \$-56 | \$907,201 | 52.7% | 2.7% |
| 2022 | \$4,056,150 | \$0 | \$494,194 | \$30,012 | \$2,028,077 | 62.9% | 12.9% |
| Total | \$6,419,217 | \$35,315 | \$547,694 | \$31,820 | \$-152,338,260 | -2363.6% | 9.6% |

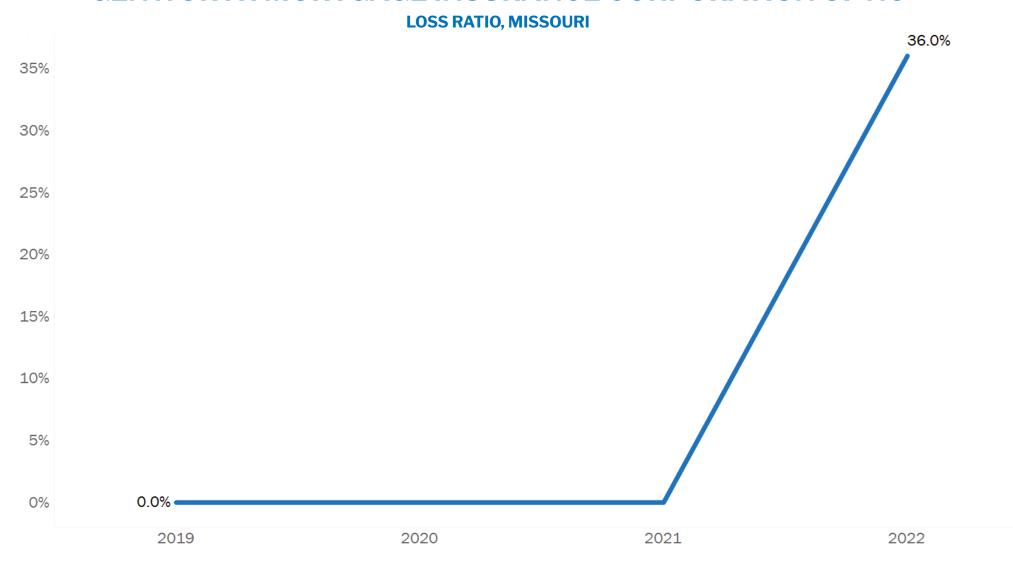


Figure 9

LOSS RATIO, NATIONWIDE

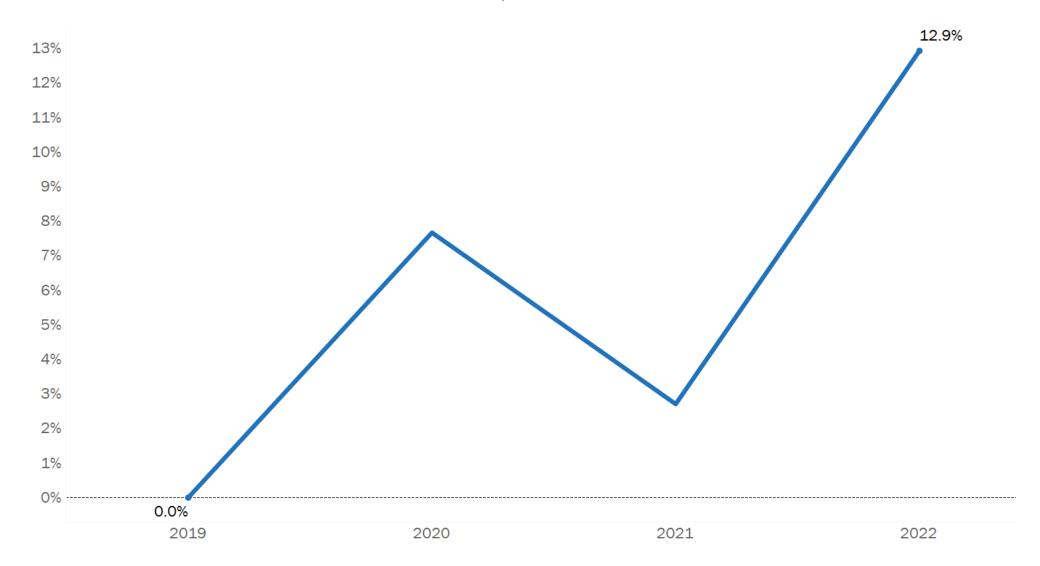


Figure 10

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2010 | \$3,094 | \$0 | \$0 | \$0 | \$1,505 | 48.6% | 0.0% |
| 2011 | \$133,474 | \$0 | \$0 | \$0 | \$61,867 | 46.4% | 0.0% |
| 2012 | \$755,980 | \$0 | \$25,322 | \$0 | \$377,990 | 53.3% | 3.3% |
| 2013 | \$2,111,481 | \$70,244 | \$12,600 | \$0 | \$1,055,741 | 53.9% | 3.9% |
| 2014 | \$3,664,235 | \$14,949 | \$29,194 | \$0 | \$1,832,118 | 51.2% | 1.2% |
| 2015 | \$5,716,267 | \$119,899 | \$132,024 | \$0 | \$2,858,134 | 54.4% | 4.4% |
| 2016 | \$7,652,569 | \$111,031 | \$-50,028 | \$0 | \$3,826,285 | 50.8% | 0.8% |
| 2017 | \$9,288,636 | \$5,159 | \$185,687 | \$0 | \$4,644,318 | 52.1% | 2.1% |
| 2018 | \$11,386,733 | \$106,403 | \$182,166 | \$0 | \$5,693,367 | 52.5% | 2.5% |
| 2019 | \$13,345,201 | \$274,127 | \$250,021 | \$0 | \$6,672,601 | 53.9% | 3.9% |
| 2020 | \$14,922,317 | \$224,160 | \$2,297,709 | \$0 | \$7,459,612 | 66.9% | 16.9% |
| 2021 | \$14,648,212 | \$50,463 | \$45,764 | \$0 | \$7,257,369 | 50.2% | 0.7% |
| 2022 | \$14,086,112 | \$213,207 | \$-1,408,349 | \$0 | \$6,665,066 | 38.8% | (8.5%) |
| Total | \$97,714,311 | \$1,189,642 | \$1,702,110 | \$0 | \$48,405,973 | 52.5% | 3.0% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|--------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2010 | \$210,116 | \$0 | \$0 | \$0 | \$98,631 | 46.9% | 0.0% |
| 2011 | \$8,178,942 | \$0 | \$55,544 | \$0 | \$3,829,726 | 47.5% | 0.7% |
| 2012 | \$41,796,109 | \$18,409 | \$1,336,617 | \$70,000 | \$20,898,054 | 53.4% | 3.4% |
| 2013 | \$123,371,908 | \$719,640 | \$1,415,403 | \$141,000 | \$61,685,955 | 51.8% | 1.8% |
| 2014 | \$223,228,460 | \$928,563 | \$4,893,353 | \$367,000 | \$111,614,230 | 52.8% | 2.8% |
| 2015 | \$324,833,394 | \$2,498,304 | \$8,571,429 | \$642,000 | \$162,416,697 | 53.6% | 3.6% |
| 2016 | \$414,077,823 | \$5,026,668 | \$9,485,517 | \$712,000 | \$207,038,912 | 53.7% | 3.7% |
| 2017 | \$509,287,217 | \$8,279,843 | \$17,110,235 | \$1,283,000 | \$254,651,580 | 55.2% | 5.2% |
| 2018 | \$633,058,740 | \$8,559,226 | \$2,440,113 | \$183,000 | \$316,529,370 | 51.8% | 1.8% |
| 2019 | \$777,257,303 | \$12,611,826 | \$17,871,508 | \$1,340,000 | \$388,628,652 | 54.1% | 4.1% |
| 2020 | \$905,112,659 | \$14,366,701 | \$280,109,912 | \$21,009,000 | \$302,502,608 | 68.3% | 34.9% |
| 2021 | \$935,906,891 | \$5,218,846 | \$32,106,686 | \$2,408,000 | \$292,889,506 | 35.5% | 4.2% |
| 2022 | \$896,817,936 | \$4,682,218 | \$-175,977,788 | \$-13,199,000 | \$256,068,638 | 8.0% | -20.6% |
| Total | \$5,793,137,498 | \$62,910,244 | \$199,418,529 | \$14,956,000 | \$2,378,852,559 | 45.8% | 4.8% |

LOSS RATIO, MISSOURI

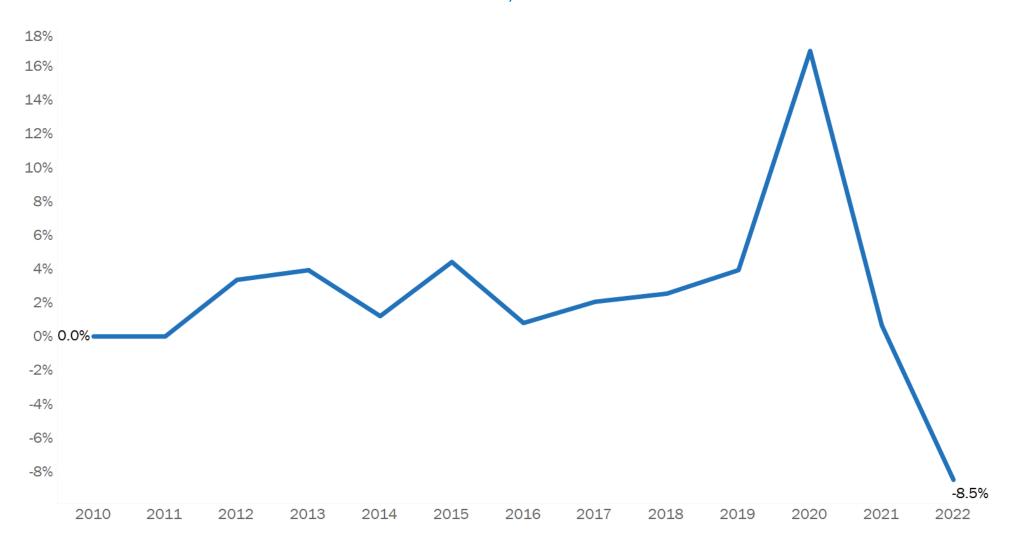


Figure 11

LOSS RATIO, NATIONWIDE

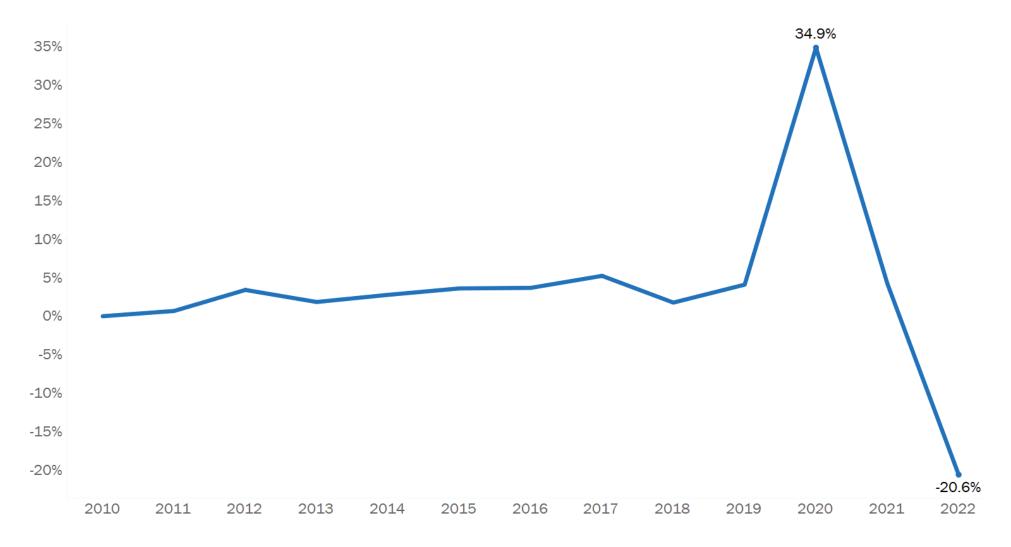


Figure 12

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$985 | \$0 | \$-9,407 | \$-1,694 | \$20 | (1125.0%) | (1127.0%) |
| 2009 | \$644 | \$0 | \$-2,471 | \$-575 | \$0 | (473.0%) | (473.0%) |
| 2010 | \$470 | \$0 | \$0 | \$0 | \$0 | 0.0% | 0.0% |
| 2011 | \$284 | \$0 | \$0 | \$0 | \$0 | 0.0% | 0.0% |
| 2012 | \$8,982 | \$-200 | \$0 | \$0 | \$0 | (2.2%) | (2.2%) |
| 2013 | \$863,418 | \$0 | \$23,603 | \$328 | \$0 | 2.8% | 2.8% |
| 2016 | \$679,162 | \$30,945 | \$-9,315 | \$-465 | \$0 | 3.1% | 3.1% |
| 2017 | \$456,668 | \$19,001 | \$-2,314 | \$-116 | \$0 | 3.6% | 3.6% |
| 2018 | \$291,027 | \$646 | \$-25,896 | \$-1,295 | \$0 | (9.1%) | (9.1%) |
| 2019 | \$183,892 | \$0 | \$11,909 | \$-197 | \$0 | 6.4% | 6.4% |
| 2020 | \$105,977 | \$0 | \$50,467 | \$2,894 | \$0 | 50.4% | 50.4% |
| 2021 | \$39,828 | \$0 | \$-47,469 | \$-2,772 | \$0 | (126.1%) | (126.1%) |
| 2022 | \$3,824 | \$0 | \$-11,191 | \$-302 | \$0 | (300.5%) | (300.5%) |
| Total | \$2,635,161 | \$50,392 | \$-22,084 | \$-4,194 | \$20 | 0.9% | 0.9% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$128,850 | \$-14,920 | \$-94,025 | \$0 | \$3,405 | -81.9% | -84.6% |
| 2009 | \$94,574 | \$35,778 | \$-59,807 | \$-50,000 | \$-26,286 | -106.1% | -78.3% |
| 2010 | \$68,915 | \$-19,279 | \$-122,085 | \$0 | \$-68,177 | -304.1% | -205.1% |
| 2011 | \$41,160 | \$634 | \$-88,669 | \$0 | \$-11,931 | -242.9% | -213.9% |
| 2012 | \$3,049,630 | \$21,868 | \$34,508 | \$2,500 | \$3,001,898 | 100.4% | 1.9% |
| 2013 | \$22,955,197 | \$31,029 | \$503,855 | \$-43,300 | \$9,995,979 | 45.7% | 2.1% |
| 2016 | \$15,279,670 | \$683,145 | \$140,755 | \$7,922 | \$10,655,333 | 75.2% | 5.4% |
| 2017 | \$10,951,284 | \$350,763 | \$141,751 | \$7,330 | \$5,463,004 | 54.4% | 4.6% |
| 2018 | \$7,665,828 | \$577,051 | \$-1,066,495 | \$-53,219 | \$3,639,350 | 40.4% | -7.1% |
| 2019 | \$5,293,218 | \$183,057 | \$-76,491 | \$-39,271 | \$751,333 | 15.5% | 1.3% |
| 2020 | \$3,963,850 | \$218,179 | \$718,165 | \$60,553 | \$749,108 | 44.0% | 25.1% |
| 2021 | \$2,872,292 | \$72,027 | \$324,275 | \$-30,420 | \$937,531 | 45.4% | 12.7% |
| 2022 | \$1,692,435 | \$48,047 | \$-1,229,211 | \$-33,189 | \$-2,259,349 | -205.2% | -71.8% |
| Total | \$74,056,903 | \$2,187,379 | \$-873,474 | \$-171,094 | \$32,831,198 | 45.9% | 1.5% |

LOSS RATIO, MISSOURI

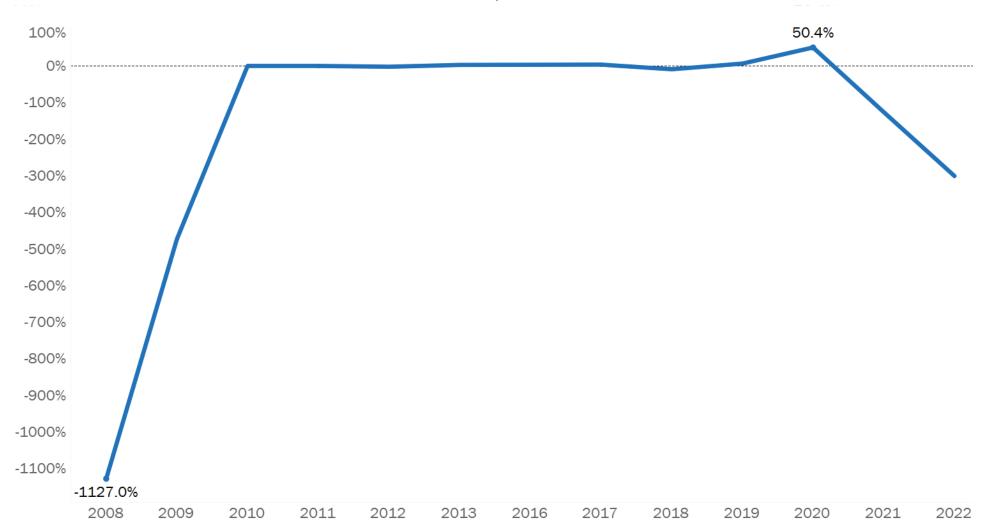


Figure 13

LOSS RATIO, NATIONWIDE

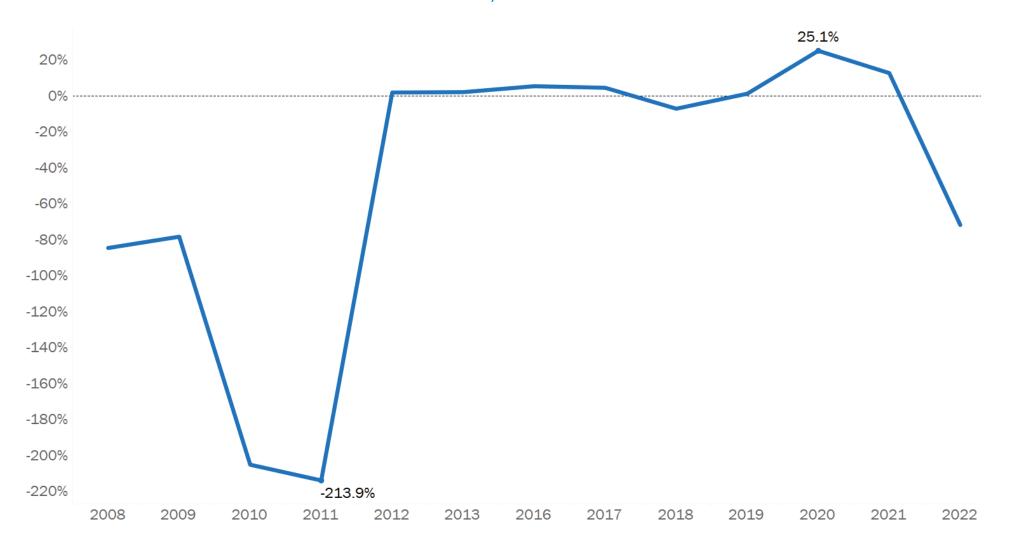


Figure 14

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$30,098,400 | \$23,237,286 | \$18,118,221 | \$33,025 | \$-15,804,893 | 85.0% | 137.5% |
| 2009 | \$27,392,641 | \$28,118,438 | \$19,401,379 | \$845,819 | \$-25,081,892 | 85.0% | 176.6% |
| 2010 | \$22,538,871 | \$36,597,953 | \$-9,032,220 | \$-1,215,955 | \$-22,832,138 | 15.6% | 116.9% |
| 2011 | \$20,890,080 | \$40,481,957 | \$-20,946,673 | \$-1,554,368 | \$0 | 86.1% | 86.1% |
| 2012 | \$18,061,996 | \$32,998,723 | \$-6,919,488 | \$-605,744 | \$0 | 141.0% | 141.0% |
| 2013 | \$15,716,230 | \$21,188,776 | \$-8,203,595 | \$-524,371 | \$0 | 79.3% | 79.3% |
| 2014 | \$15,333,871 | \$12,960,977 | \$-6,429,522 | \$-338,765 | \$0 | 40.4% | 40.4% |
| 2015 | \$16,291,451 | \$9,033,259 | \$-2,629,687 | \$90,744 | \$0 | 39.9% | 39.9% |
| 2016 | \$17,238,187 | \$7,891,566 | \$-4,546,581 | \$-509,537 | \$0 | 16.4% | 16.4% |
| 2017 | \$17,604,265 | \$5,227,870 | \$-4,199,412 | \$-170,728 | \$0 | 4.9% | 4.9% |
| 2018 | \$18,831,547 | \$3,538,958 | \$-2,430,391 | \$-47,029 | \$0 | 5.6% | 5.6% |
| 2019 | \$20,731,077 | \$2,344,828 | \$-207,322 | \$-17,263 | \$0 | 10.2% | 10.2% |
| 2020 | \$22,440,075 | \$1,291,389 | \$4,716,443 | \$108,090 | \$0 | 27.3% | 27.3% |
| 2021 | \$22,908,110 | \$445,470 | \$2,770,409 | \$83,181 | \$0 | 14.4% | 14.4% |
| 2022 | \$23,648,447 | \$515,735 | \$-4,629,528 | \$-97,945 | \$0 | (17.8%) | (17.8%) |
| Total | \$309,725,248 | \$225,873,185 | \$-25,167,967 | \$-3,920,846 | \$-63,718,923 | 43.0% | 63.5% |

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|------------------|------------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$1,610,231,249 | \$1,370,014,077 | \$2,029,523,502 | \$72,000,000 | \$-1,115,009,302 | 146.3% | 215.6% |
| 2009 | \$1,374,243,631 | \$1,644,093,391 | \$1,771,541,614 | \$82,500,000 | \$-1,653,657,097 | 134.2% | 254.5% |
| 2010 | \$1,138,213,936 | \$2,369,454,661 | \$-692,058,073 | \$-98,200,000 | \$-405,797,297 | 103.1% | 138.7% |
| 2011 | \$1,174,601,929 | \$3,034,266,132 | \$-1,097,975,789 | \$-93,000,000 | \$0 | 156.9% | 156.9% |
| 2012 | \$1,063,768,423 | \$2,563,767,030 | \$-591,168,870 | \$106,866,774 | \$0 | 195.5% | 195.5% |
| 2013 | \$948,452,921 | \$1,820,052,768 | \$-879,784,519 | \$-95,475,000 | \$0 | 89.1% | 89.1% |
| 2014 | \$957,413,577 | \$1,158,189,894 | \$-572,806,569 | \$-71,075,000 | \$247,218,611 | 79.5% | 53.7% |
| 2015 | \$1,014,239,104 | \$844,633,930 | \$-454,468,449 | \$-40,875,000 | \$443,876,370 | 78.2% | 34.4% |
| 2016 | \$1,054,673,785 | \$706,970,441 | \$-366,209,474 | \$-87,575,000 | \$490,391,258 | 70.5% | 24.0% |
| 2017 | \$1,062,865,866 | \$509,727,932 | \$-429,565,061 | \$-19,450,000 | \$472,644,563 | 50.2% | 5.7% |
| 2018 | \$1,087,930,422 | \$338,038,326 | \$-302,499,420 | \$-6,700,000 | \$484,201,259 | 47.2% | 2.7% |
| 2019 | \$1,149,041,083 | \$227,047,556 | \$-124,444,650 | \$-6,200,000 | \$555,908,311 | 56.8% | 8.4% |
| 2020 | \$1,175,242,771 | \$99,904,924 | \$297,898,696 | \$5,540,000 | \$558,504,390 | 81.8% | 34.3% |
| 2021 | \$1,151,932,662 | \$57,072,944 | \$3,467,475 | \$-565,000 | \$534,883,617 | 51.6% | 5.2% |
| 2022 | \$1,147,313,306 | \$43,114,781 | \$-297,279,729 | \$-6,600,000 | \$540,983,033 | 24.4% | -22.7% |
| Total | \$17,110,164,665 | \$16,786,348,787 | \$-1,705,829,316 | \$-258,808,226 | \$1,154,147,716 | 93.4% | 86.6% |

LOSS RATIO, MISSOURI

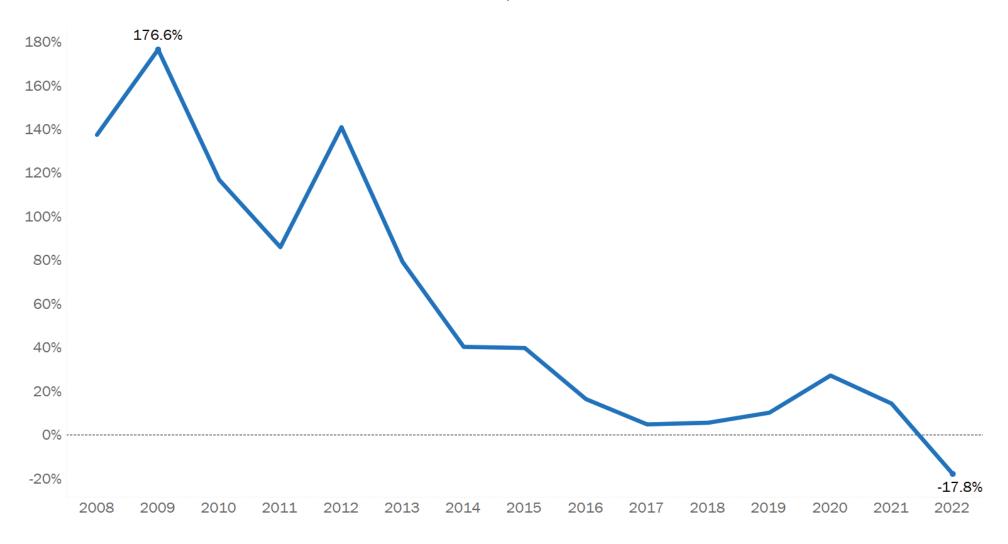


Figure 15

LOSS RATIO, NATIONWIDE

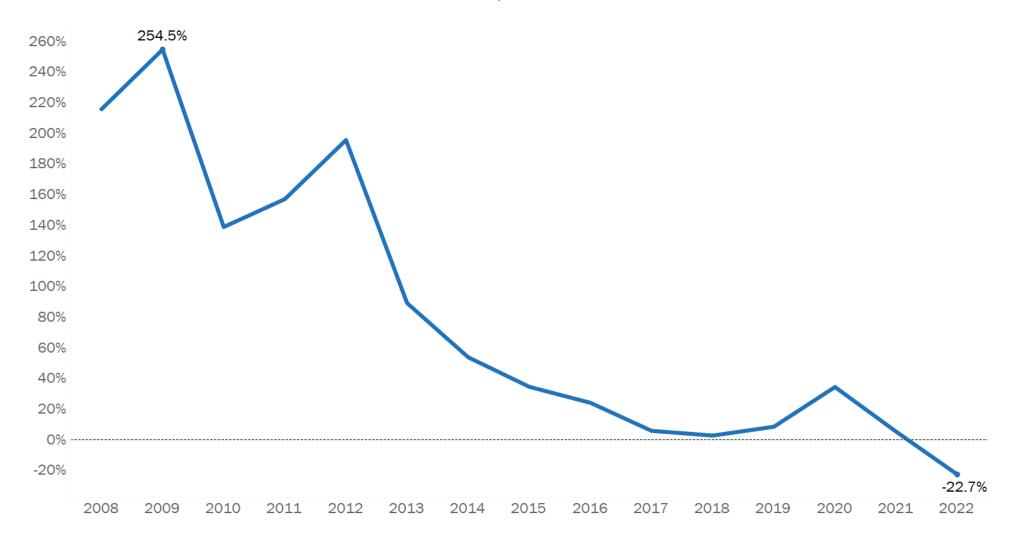


Figure 16

MISSOURI

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|-------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2014 | \$56,762 | \$0 | \$0 | \$0 | \$28,381 | 50.0% | 0.0% |
| 2015 | \$560,735 | \$50,312 | \$0 | \$0 | \$0 | 9.0% | 9.0% |
| 2016 | \$2,011,656 | \$40,709 | \$50,828 | \$3,812 | \$1,005,828 | 54.7% | 4.7% |
| 2017 | \$3,129,408 | \$24,219 | \$51,491 | \$3,862 | \$1,564,704 | 52.5% | 2.5% |
| 2018 | \$4,873,556 | \$80,424 | \$-12,057 | \$-1,104 | \$2,436,778 | 51.4% | 1.4% |
| 2019 | \$6,749,936 | \$66,103 | \$56,152 | \$4,408 | \$3,374,968 | 51.9% | 1.9% |
| 2020 | \$7,738,544 | \$59,339 | \$626,207 | \$46,970 | \$3,869,272 | 59.5% | 9.5% |
| 2021 | \$7,652,940 | \$13,339 | \$99,779 | \$1,872 | \$3,826,470 | 51.5% | 1.5% |
| 2022 | \$8,356,338 | \$53,166 | \$468,314 | \$27,744 | \$4,178,169 | 56.6% | 6.6% |
| Total | \$41,129,875 | \$387,611 | \$1,340,714 | \$87,564 | \$20,284,570 | 53.7% | 4.4% |

NATIONWIDE

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|--------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2014 | \$13,406,621 | \$0 | \$80,281 | \$3,045 | \$6,204,690 | 46.9% | 0.6% |
| 2015 | \$45,506,463 | \$53,906 | \$551,360 | \$44,328 | \$20,959,048 | 47.5% | 1.4% |
| 2016 | \$115,829,692 | \$360,403 | \$2,094,089 | \$157,057 | \$54,954,900 | 49.7% | 2.3% |
| 2017 | \$192,325,509 | \$1,247,842 | \$5,278,182 | \$395,863 | \$95,898,126 | 53.5% | 3.6% |
| 2018 | \$292,064,497 | \$3,126,616 | \$3,812,318 | \$259,657 | \$145,642,032 | 52.3% | 2.5% |
| 2019 | \$398,302,677 | \$4,942,580 | \$9,947,169 | \$771,758 | \$198,593,527 | 53.8% | 3.9% |
| 2020 | \$472,997,283 | \$6,320,472 | \$61,260,173 | \$4,590,188 | \$235,953,462 | 65.1% | 15.3% |
| 2021 | \$536,630,454 | \$2,482,809 | \$12,495,245 | \$-304,768 | \$267,796,299 | 52.6% | 2.7% |
| 2022 | \$594,127,435 | \$1,669,756 | \$-2,840,946 | \$-210,703 | \$276,107,039 | 46.2% | -0.2% |
| Total | \$2,661,190,631 | \$20,204,384 | \$92,677,871 | \$5,706,425 | \$1,302,109,123 | 53.4% | 4.5% |

LOSS RATIO, MISSOURI

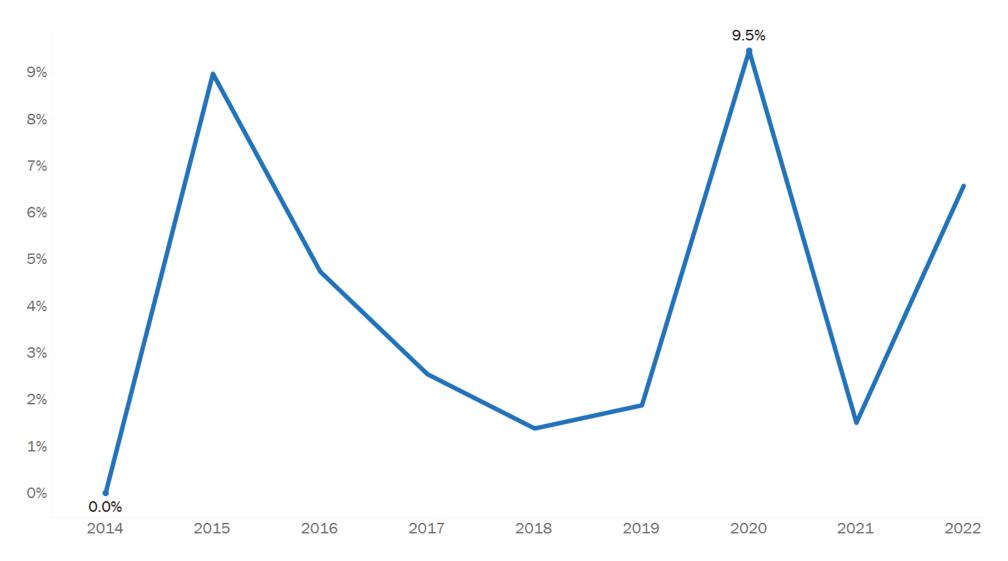


Figure 17

LOSS RATIO, NATIONWIDE

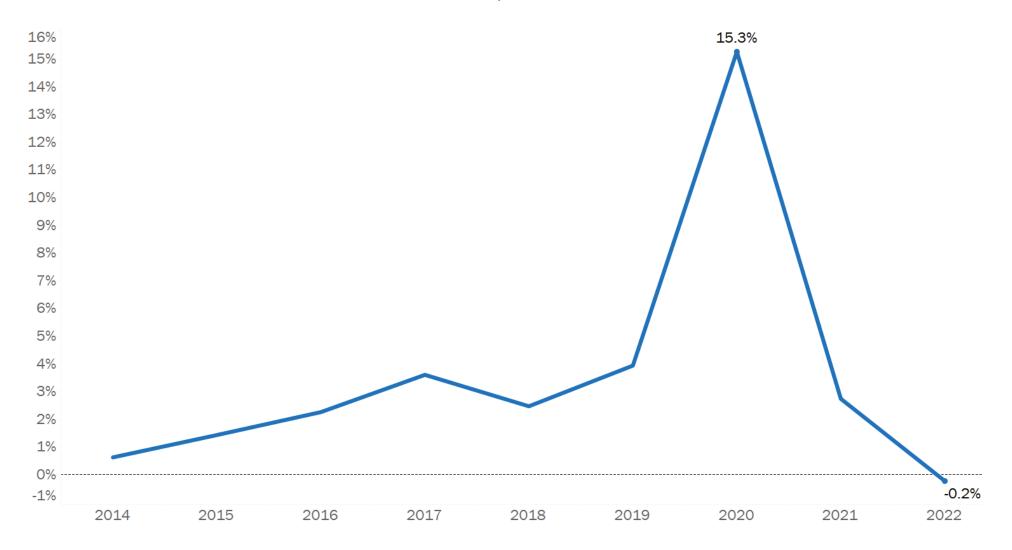


Figure 18

MISSOURI

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$15,612,537 | \$15,262,371 | \$1,343,528 | \$11,049,773 | \$-18,979,556 | 55.6% | 177.1% |
| 2009 | \$14,016,568 | \$14,785,849 | \$1,996,175 | \$4,689,572 | \$-7,556,787 | 99.3% | 153.2% |
| 2010 | \$13,055,858 | \$24,036,840 | \$2,950,716 | \$-6,480,207 | \$-11,948,694 | 65.6% | 157.1% |
| 2011 | \$10,977,017 | \$21,794,604 | \$1,541,196 | \$-4,932,675 | \$-302,841 | 164.9% | 167.7% |
| 2012 | \$11,559,891 | \$13,853,360 | \$-275,754 | \$-689,110 | \$0 | 111.5% | 111.5% |
| 2013 | \$11,628,384 | \$16,392,923 | \$-3,582,263 | \$-5,318,618 | \$344,128 | 67.4% | 64.4% |
| 2014 | \$11,977,416 | \$10,857,178 | \$-3,031,006 | \$-3,556,231 | \$4,817,077 | 75.9% | 35.6% |
| 2015 | \$12,629,418 | \$7,473,404 | \$-687,912 | \$-3,221,511 | \$6,103,211 | 76.5% | 28.2% |
| 2016 | \$12,845,524 | \$5,542,799 | \$-1,025,527 | \$-1,101,408 | \$5,146,787 | 66.7% | 26.6% |
| 2017 | \$12,287,470 | \$4,332,221 | \$-661,454 | \$-761,244 | \$5,050,549 | 64.8% | 23.7% |
| 2018 | \$13,057,863 | \$2,335,326 | \$-54,646 | \$-1,168,934 | \$5,433,667 | 50.1% | 8.5% |
| 2019 | \$15,268,249 | \$1,788,946 | \$-50,361 | \$431,941 | \$6,231,163 | 55.0% | 14.2% |
| 2020 | \$16,850,341 | \$1,041,944 | \$-247,241 | \$4,038,874 | \$11,066,154 | 94.4% | 28.7% |
| 2021 | \$16,173,644 | \$663,974 | \$-138,546 | \$611,326 | \$7,297,159 | 52.1% | 7.0% |
| 2022 | \$15,306,952 | \$187,121 | \$120,753 | \$-3,053,823 | \$7,760,973 | 32.8% | (17.9%) |
| Total | \$203,247,132 | \$140,348,860 | \$-1,802,342 | \$-9,462,275 | \$20,462,990 | 73.6% | 63.5% |

NATIONWIDE

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|------------------|------------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$909,524,528 | \$726,496,048 | \$171,495,731 | \$1,410,457,435 | \$-1,105,673,398 | 132.2% | 253.8% |
| 2009 | \$853,615,938 | \$968,300,186 | \$159,516,341 | \$374,748,371 | \$-440,228,317 | 124.5% | 176.0% |
| 2010 | \$820,492,846 | \$1,675,183,809 | \$336,617,765 | \$-265,577,446 | \$-750,913,321 | 121.3% | 212.8% |
| 2011 | \$711,315,606 | \$1,535,972,011 | \$-21,480,606 | \$-241,820,122 | \$-19,624,257 | 176.2% | 178.9% |
| 2012 | \$773,262,302 | \$1,021,623,764 | \$69,204,192 | \$-219,149,038 | \$0 | 112.7% | 112.7% |
| 2013 | \$864,136,526 | \$1,443,931,122 | \$-412,326,652 | \$-489,948,739 | \$23,019,362 | 65.3% | 62.7% |
| 2014 | \$911,114,278 | \$831,040,939 | \$-185,636,949 | \$-417,970,517 | \$366,431,947 | 65.2% | 25.0% |
| 2015 | \$975,487,046 | \$764,328,153 | \$-134,591,415 | \$-416,133,695 | \$471,407,579 | 70.2% | 21.9% |
| 2016 | \$997,668,179 | \$411,964,833 | \$-54,805,089 | \$-153,249,550 | \$399,733,416 | 60.5% | 20.4% |
| 2017 | \$988,678,829 | \$381,219,851 | \$-21,310,120 | \$-225,339,080 | \$406,379,074 | 54.7% | 13.6% |
| 2018 | \$1,064,270,961 | \$204,285,404 | \$-6,308,176 | \$-100,150,537 | \$442,866,769 | 50.8% | 9.2% |
| 2019 | \$1,219,999,203 | \$126,888,369 | \$-4,317,839 | \$9,225,823 | \$497,896,926 | 51.6% | 10.8% |
| 2020 | \$1,242,857,218 | \$95,110,802 | \$-14,412,921 | \$445,926,548 | \$789,542,419 | 105.9% | 42.4% |
| 2021 | \$1,086,331,260 | \$32,912,972 | \$-45,180 | \$-20,404,177 | \$490,126,499 | 46.3% | 1.1% |
| 2022 | \$1,019,037,163 | \$18,442,396 | \$-478,581 | \$-391,869,246 | \$516,674,987 | 14.0% | -36.7% |
| Total | \$14,437,791,883 | \$10,237,700,659 | \$-118,879,499 | \$-701,253,970 | \$2,087,639,685 | 79.7% | 65.2% |

LOSS RATIO, MISSOURI

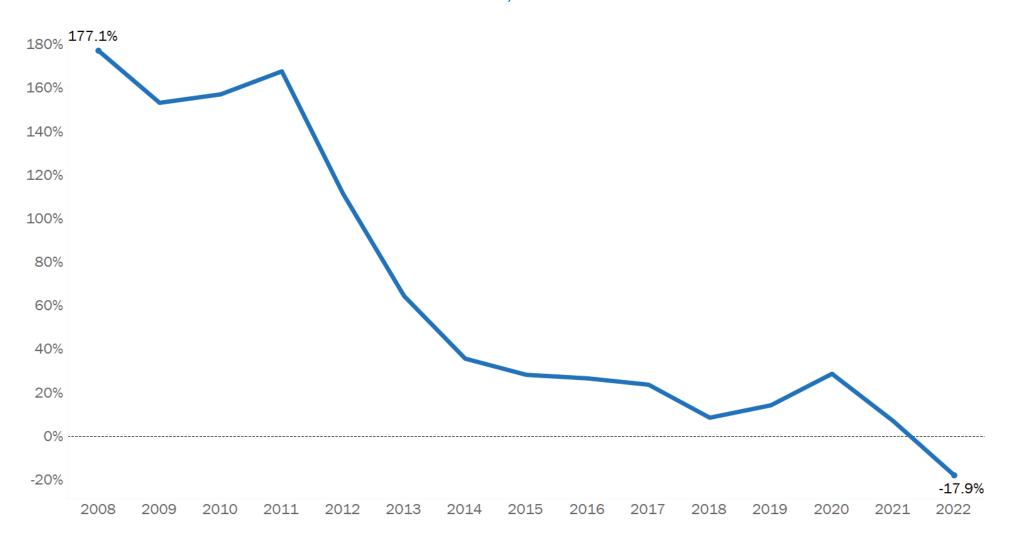


Figure 19

LOSS RATIO, NATIONWIDE

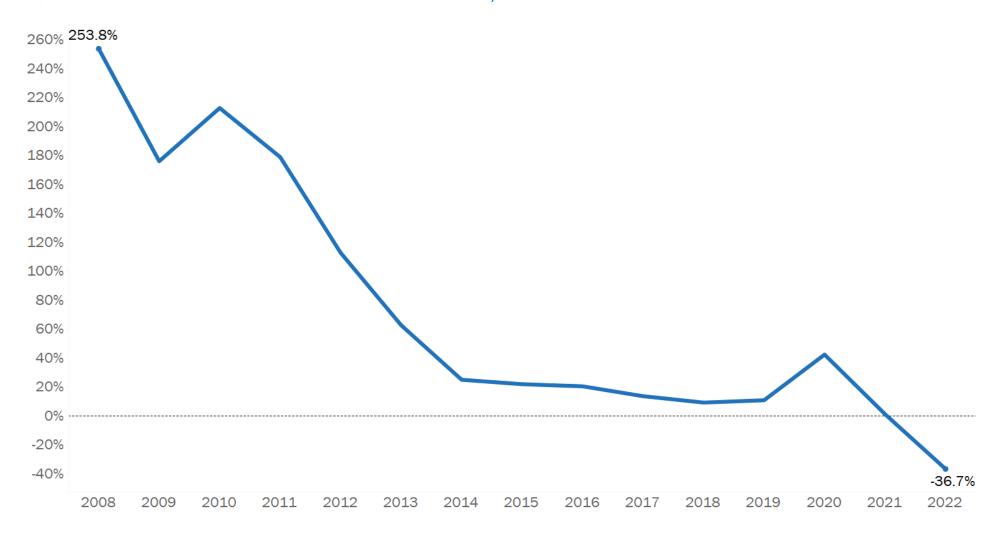


Figure 20

MISSOURI

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-------------------|---------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$18,503,524 | \$11,066,232 | \$17,629,134 | \$2,573,584 | \$-18,167,955 | 70.8% | 169.0% |
| 2009 | \$16,791,278 | \$10,090,439 | \$20,047,213 | \$208,284 | \$2,465,154 | 195.4% | 180.7% |
| 2010 | \$15,144,939 | \$26,300,974 | \$-16,853,756 | \$-1,736,931 | \$27,343 | 51.1% | 50.9% |
| 2011 | \$14,090,670 | \$22,016,297 | \$-7,966,661 | \$-226,950 | \$5,319,001 | 135.8% | 98.1% |
| 2012 | \$16,518,133 | \$18,708,527 | \$-6,056,117 | \$-423,082 | \$-8,139,009 | 24.8% | 74.0% |
| 2013 | \$19,942,000 | \$12,767,740 | \$-4,976,992 | \$-216,777 | \$3,497,821 | 55.5% | 38.0% |
| 2014 | \$22,974,663 | \$7,347,676 | \$-2,175,186 | \$-106,300 | \$10,203,880 | 66.5% | 22.1% |
| 2015 | \$25,610,668 | \$5,464,272 | \$-2,344,176 | \$-161,494 | \$9,773,529 | 49.7% | 11.6% |
| 2016 | \$25,532,923 | \$4,415,118 | \$-719,779 | \$-177,614 | \$8,758,183 | 48.1% | 13.8% |
| 2017 | \$20,063,566 | \$3,316,705 | \$-2,596,524 | \$-36,967 | \$5,695,517 | 31.8% | 3.4% |
| 2018 | \$16,733,899 | \$2,043,286 | \$-717,169 | \$-126,436 | \$4,069,950 | 31.5% | 7.2% |
| 2019 | \$13,359,808 | \$1,365,354 | \$-734,897 | \$-71,488 | \$3,859,023 | 33.1% | 4.2% |
| 2020 | \$10,768,729 | \$1,062,459 | \$1,826,087 | \$-28,994 | \$3,055,638 | 54.9% | 26.6% |
| 2021 | \$5,683,188 | \$682,340 | \$29,016 | \$-218,331 | \$2,455,299 | 51.9% | 8.7% |
| 2022 | \$3,121,180 | \$36,067 | \$-1,587,029 | \$-7,217 | \$1,807,288 | 8.0% | (49.9%) |
| Total | \$244,839,168 | \$126,683,486 | \$-7,196,836 | \$-756,713 | \$34,680,662 | 62.7% | 48.5% |

NATIONWIDE

| Year | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|-------|-----------------|-----------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| 2008 | \$779,762,108 | \$489,202,765 | \$1,377,053,248 | \$187,305,145 | \$-765,620,783 | 165.2% | 263.4% |
| 2009 | \$723,497,885 | \$471,193,293 | \$1,389,219,172 | \$13,395,568 | \$106,217,846 | 273.7% | 259.0% |
| 2010 | \$635,238,251 | \$1,239,584,003 | \$-773,463,042 | \$-104,524,953 | \$1,146,859 | 57.1% | 56.9% |
| 2011 | \$600,405,624 | \$1,186,758,756 | \$-517,350,532 | \$-12,773,240 | \$226,643,434 | 147.1% | 109.4% |
| 2012 | \$586,590,277 | \$1,367,553,071 | \$-751,433,354 | \$-47,213,336 | \$-289,031,657 | 47.7% | 97.0% |
| 2013 | \$681,263,307 | \$836,242,603 | \$-377,278,060 | \$-16,018,019 | \$119,493,392 | 82.6% | 65.0% |
| 2014 | \$768,215,110 | \$450,673,031 | \$-231,287,433 | \$-10,951,108 | \$341,192,145 | 71.5% | 27.1% |
| 2015 | \$863,584,399 | \$340,222,405 | \$-180,148,558 | \$-11,930,722 | \$329,560,593 | 55.3% | 17.2% |
| 2016 | \$896,515,342 | \$244,380,572 | \$-111,293,296 | \$-13,780,846 | \$307,518,478 | 47.6% | 13.3% |
| 2017 | \$773,840,418 | \$205,221,726 | \$-114,360,345 | \$12,699,412 | \$219,672,871 | 41.8% | 13.4% |
| 2018 | \$727,191,921 | \$152,482,969 | \$-82,694,225 | \$-11,415,752 | \$176,864,635 | 32.3% | 8.0% |
| 2019 | \$614,359,642 | \$106,123,350 | \$-96,080,866 | \$-9,101,339 | \$177,459,733 | 29.0% | 0.2% |
| 2020 | \$510,306,796 | \$51,739,869 | \$138,576,346 | \$-1,235,128 | \$144,800,095 | 65.4% | 37.1% |
| 2021 | \$291,831,863 | \$22,579,366 | \$-474,502 | \$-14,442,106 | \$129,259,126 | 46.9% | 2.6% |
| 2022 | \$172,222,105 | \$14,959,533 | \$-130,614,116 | \$190,797 | \$95,609,354 | -11.5% | -67.0% |
| Total | \$9,624,825,048 | \$7,178,917,312 | \$-461,629,563 | \$-39,795,627 | \$1,320,786,121 | 83.1% | 69.4% |

LOSS RATIO, MISSOURI

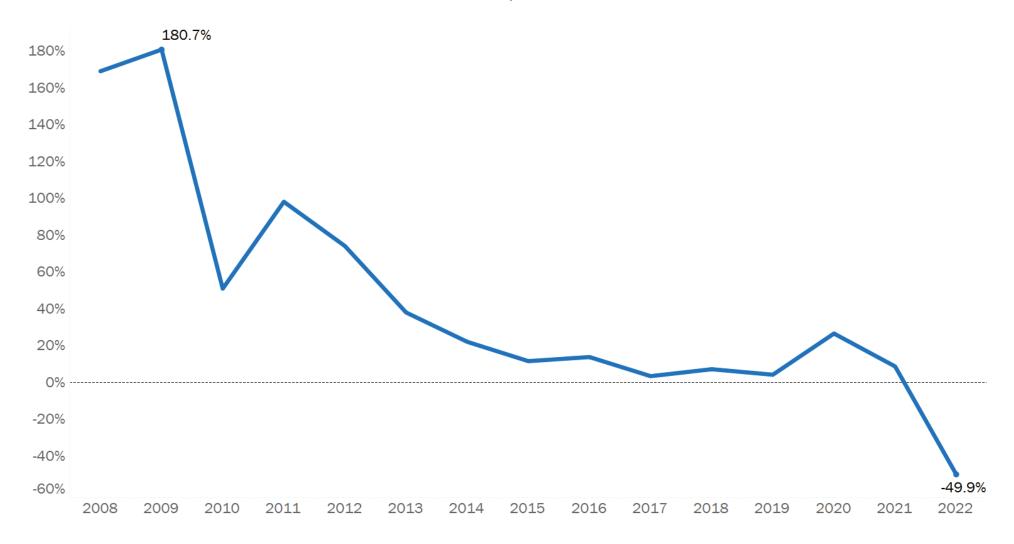


Figure 21

LOSS RATIO, NATIONWIDE

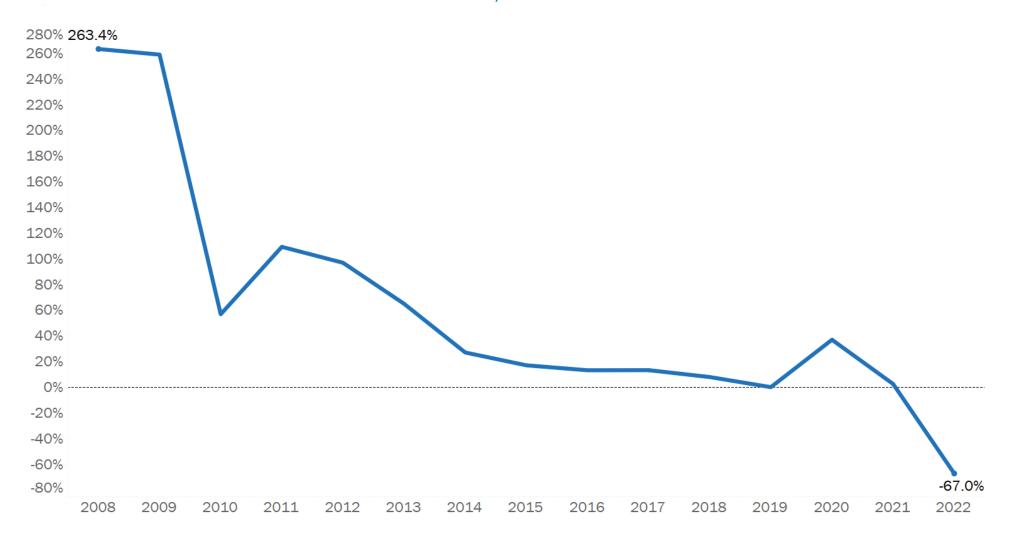


Figure 22

Premium Ranking by Company

RESIDENTIAL BUSINESS: 2022

| Company Name | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|---|-------------------|---------------|--------------------------------------|-------------------------------|--|----------------------|--------------------|
| Mortgage Guaranty Insurance Corporation | \$309,725,248 | \$225,873,185 | \$-25,167,967 | \$-3,920,846 | \$-63,718,923 | 43.0% | 63.5% |
| United Guaranty Residential Insurance Company | \$244,839,168 | \$126,683,486 | \$-7,196,836 | \$-756,713 | \$34,680,662 | 62.7% | 48.5% |
| Genworth Mortgage Insurance Corporation | \$214,087,000 | \$128,967,231 | \$-3,477,625 | \$1,083,209 | \$33,839,924 | 74.9% | 59.1% |
| Radian Guaranty Inc | \$203,247,132 | \$140,348,860 | \$-1,802,342 | \$-9,462,275 | \$20,462,990 | 73.6% | 63.5% |
| Cmg Mortgage Insurance Company | \$100,175,981 | \$12,122,484 | \$2,991,562 | \$-363,759 | \$16,540,720 | 31.2% | 14.7% |
| Essent Guaranty Inc | \$97,714,311 | \$1,189,642 | \$1,702,110 | \$0 | \$48,405,973 | 52.5% | 3.0% |
| Republic Mortgage Insurance Company | \$60,126,887 | \$58,128,634 | \$9,936,539 | \$259,432 | \$-11,338,792 | 94.8% | 113.6% |
| National Mortgage Insurance Corporation | \$41,129,875 | \$387,611 | \$1,340,714 | \$87,564 | \$20,284,570 | 53.7% | 4.4% |
| Pmi Mortgage Insurance Company | \$40,873,770 | \$40,766,205 | \$10,801,266 | \$2,016,643 | \$448,237 | 132.2% | 131.1% |
| United Guaranty Mortgage Indemnity Company | \$3,704,711 | \$1,136,102 | \$19,366 | \$35,430 | \$-115,809 | 29.0% | 32.1% |
| Verex Assurance Inc | \$3,641,899 | \$15,620 | \$102,446 | \$8,233 | \$1,418,661 | 42.4% | 3.5% |
| Triad Guaranty Insurance Corp | \$2,889,590 | \$1,915,030 | \$308,317 | \$36,629 | \$532,717 | 96.6% | 78.2% |
| Mgic Indemnity Corporation | \$2,635,161 | \$50,392 | \$-22,084 | \$-4,194 | \$20 | 0.9% | 0.9% |
| Genworth Residential Mortgage Insurance Corporation | \$2,061,766 | \$2,433,331 | \$696,344 | \$-576,180 | \$406,326 | 143.6% | 123.8% |
| Enact Mortgage Insurance Corporation Of North Carolina | \$479,540 | \$0 | \$83,677 | \$233 | \$239,771 | 67.5% | 17.5% |
| Republic Mortgage Insurance Company Of North Carolina | \$374,728 | \$10,242 | \$14,950 | \$214 | \$82,820 | 28.9% | 6.8% |
| Pmi Mortgage Assurance Company | \$364,809 | \$36,992 | \$0 | \$0 | \$4,993 | 11.5% | 10.1% |

| Company Name | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|---|-------------------|---------------|--------------------------------------|-------------------------------|--|----------------------|--------------------|
| Cmg Mortgage Assurance Company | \$3,886 | \$-61,044 | \$0 | \$0 | \$0 | -1570.9% | -1570.9% |
| Pmi Insurance Co | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| Poseidon Structured Mortgage Insurance Company | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| Total | \$1,328,075,462 | \$740,004,003 | \$-9,669,563 | \$-11,556,380 | \$102,174,860 | 61.8% | 54.1% |

RESIDENTIAL MORTGAGE GUARANTY INSURANCE

MISSOURI: 2008-2022

| Company Name | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|---|------------------|------------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| Mortgage Guaranty Insurance Corporation | \$17,110,164,665 | \$16,786,348,787 | \$-1,705,829,316 | \$-258,808,226 | \$1,154,147,716 | 93.4% | 86.6% |
| Radian Guaranty Inc | \$14,437,791,883 | \$10,237,700,659 | \$-118,879,499 | \$-701,253,970 | \$2,087,639,685 | 79.7% | 65.2% |
| Genworth Mortgage Insurance Corporation | \$10,966,465,989 | \$7,697,081,431 | \$-61,952,204 | \$-13,381,296 | \$1,521,820,119 | 83.4% | 69.5% |
| United Guaranty Residential Insurance Company | \$9,624,825,048 | \$7,178,917,312 | \$-461,629,563 | \$-39,795,627 | \$1,320,786,121 | 83.1% | 69.4% |
| Essent Guaranty Inc | \$5,793,137,498 | \$62,910,244 | \$199,418,529 | \$14,956,000 | \$2,378,852,559 | 45.8% | 4.8% |
| Cmg Mortgage Insurance Company | \$5,125,397,104 | \$747,375,983 | \$234,457,678 | \$-24,288,386 | \$1,644,727,933 | 50.8% | 18.7% |
| Republic Mortgage Insurance Company | \$2,962,253,412 | \$4,221,060,618 | \$1,001,371,625 | \$33,285,000 | \$-1,010,941,323 | 143.3% | 177.4% |
| National Mortgage Insurance Corporation | \$2,661,190,631 | \$20,204,384 | \$92,677,871 | \$5,706,425 | \$1,302,109,123 | 53.4% | 4.5% |
| Pmi Mortgage Insurance Company | \$2,502,071,449 | \$3,897,145,602 | \$1,578,297,617 | \$133,875,459 | \$25,000,000 | 225.2% | 224.2% |
| Triad Guaranty Insurance Corp | \$925,484,657 | \$1,891,831,936 | \$274,137,787 | \$-33,013,045 | \$171,524,063 | 249.0% | 230.5% |
| United Guaranty Mortgage Indemnity Company | \$759,799,752 | \$898,554,449 | \$-77,863,861 | \$-12,957,309 | \$-10,658,459 | 104.9% | 106.3% |
| Genworth Residential Mortgage Insurance Corporation | \$375,990,987 | \$488,051,134 | \$124,462,566 | \$5,293,071 | \$-26,367,773 | 157.3% | 164.3% |
| Mgic Indemnity Corporation | \$74,056,903 | \$2,187,379 | \$-873,474 | \$-171,094 | \$32,831,198 | 45.9% | 1.5% |
| Pmi Insurance Co | \$46,112,842 | \$41,083,190 | \$3,418,193 | \$-2,287,272 | \$-1,122,929 | 89.1% | 91.5% |
| Verex Assurance Inc | \$21,348,208 | \$238,610 | \$610,888 | \$42,738 | \$405,412 | 6.1% | 4.2% |
| Pmi Mortgage Assurance Company | \$19,707,455 | \$285,000 | \$673,249 | \$59,740 | \$1,402,883 | 12.3% | 5.2% |
| Republic Mortgage Insurance Company Of North Carolina | \$17,718,104 | \$6,815,012 | \$7,776,278 | \$106,000 | \$13,093,767 | 156.9% | 83.0% |
| Enact Mortgage Insurance Corporation Of North Carolina | \$6,419,217 | \$35,315 | \$547,694 | \$31,820 | \$-152,338,260 | -2363.6% | 9.6% |

| Company Name | Earned Premium | Paid Losses | Change in Outstanding Reserves | Change in IBNR Reserves | Increase in Contingency Reserves | Loaded Loss Ratio | True Loss Ratio |
|---|------------------|------------------|--------------------------------------|----------------------------|--|----------------------|--------------------|
| Cmg Mortgage Assurance Company | \$1,978,823 | \$-22,442,329 | \$-120,999 | \$0 | \$2,659,961 | -1005.8% | -1140.2% |
| Poseidon Structured Mortgage Insurance Company | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| Total | \$73,431,914,627 | \$54,155,384,716 | \$1,090,701,059 | \$-892,599,972 | \$10,455,571,796 | 88.3% | 74.0% |



