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TEXAS WINDSTORM  
INSURANCE ASSOCIATION

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# Actuarial & Underwriting Committee

**TWIA Actuarial Department – 2024 Rate Indications**

**July 15, 2024**

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# Actuarial Principles

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## **Casualty Actuarial Society Statement of Principles**

1. A rate is an estimate of the expected value of future costs
2. A rate provides for all costs associated with the transfer of risk
3. A rate provides for the costs associated with an individual risk transfer
4. A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer

# Statutory Language

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## Sec. 2210.001

“The association shall function in such a manner as to not be a direct competitor in the private market;...”

Sec. 2210.355 (b) In adopting rates under this chapter, the following must be considered:

- (1) the past and prospective loss experience within and outside this state of hazards for which insurance is made available through the plan of operation, if any;
- (2) expenses of operation, including acquisition costs;
- (3) a reasonable margin for profit and contingencies;
- (4) payment of public security obligations issued under this chapter, including the additional amount of any debt service coverage determined by the association to be required for the issuance of marketable public securities; and
- (5) all other relevant factors, within and outside this state.

Sec. 2210.355 (c) Rates must be reasonable, adequate, not unfairly discriminatory, and nonconfiscatory as to any class of insurer.

# Recent Legislative Changes

## HB 769

SECTION 1. Subchapter H, Chapter 2210, Insurance Code, is amended by adding Section 2210.3512 to read as follows:

Sec. 2210.3512. REQUIREMENT FOR VOTE ON RATE FILING. The board of directors may not vote on a proposed rate increase if:

- (1) there is a vacancy on the board; and
- (2) the vacancy has existed for at least 60 days at the time the vote is to be taken.

SECTION 2. The heading to Section 2210.453, Insurance Code, is amended to read as follows:

Sec. 2210.453. FUNDING LEVELS; REINSURANCE AND ALTERNATIVE RISK FINANCING MECHANISMS; REINSURANCE FROM CERTAIN INSURER OR BROKER PROHIBITED.

SECTION 3. Section 2210.453, Insurance Code, is amended by adding Subsection (f) to read as follows:

(f) The association may not purchase reinsurance under this section from an insurer or broker involved in the execution of a catastrophe model on which the association relies in:

- (1) determining the probable maximum loss applicable for the period covered by the reinsurance; or
- (2) adopting rates under Section 2210.355.

# Recent Legislative Changes

## SB 1448

SECTION 1. Section 2210.351, Insurance Code, is amended by amending Subsection (d) and adding Subsection (f) to read as follows:

(d) The association may use a rate filed by the association without prior commissioner approval if:

(1) the filing is made not later than the 30th day before the date of any use or delivery for use of the rate;

(2) the filed rate does not exceed ~~[105 percent of]~~ the rate in effect on the date on which the filing is made; and

(3) ~~[the filed rate does not reflect a rate change for an individual rating class that is 10 percent higher than the rate in effect for that rating class on the date on which the filing is made; and~~

~~[-4-]~~ the commissioner has not disapproved the filing in writing, advising of the reasons for the disapproval and the criteria the association is required to meet to obtain approval.

(f) The association may not file a rate under this section that exceeds the rate in effect on the date on which the filing is made unless two-thirds of the board of directors votes to approve the rate.

# Recent Legislative Changes

## SB 1448

SECTION 2. Section 2210.352, Insurance Code, is amended by amending Subsection (a-1) and adding Subsection (a-3) to read as follows:

(a-1) The association may use a rate filed by the association under this section without prior commissioner approval if:

(1) the filing is made not later than the 30th day before the date of any use or delivery for use of the rate; and

(2) the filed rate does not exceed [~~105 percent of~~] the rate used by the association in effect on the date on which the filing is made[~~;~~ and

~~[(3) the filed rate does not reflect a rate change for an individual rating class that is 10 percent higher than the rate in effect for that rating class on the date on which the filing is made].~~

(a-3) The association may not file a rate under this section that exceeds the rate in effect on the date on which the filing is made unless two-thirds of the board of directors votes to approve the rate.

# Rate Adequacy Methodology

## **TWIA employs the “Loss Ratio Method” to determine rate level indications.**

- This approach compares the estimated percentage of each premium dollar needed to cover future losses, loss adjustment expense and other fixed expenses for a prospective accident year to the amount of each premium dollar that is available to pay for such costs (referred to as the permissible loss ratio).
- This relationship is defined as:

$$\text{Indicated Rate Change Factor} = \frac{(\text{Loss \& LAE Ratio} + \text{Fixed Expense Ratio})}{(1 - \text{Variable Expense Ratio})}$$



# Rate Adequacy Methodology

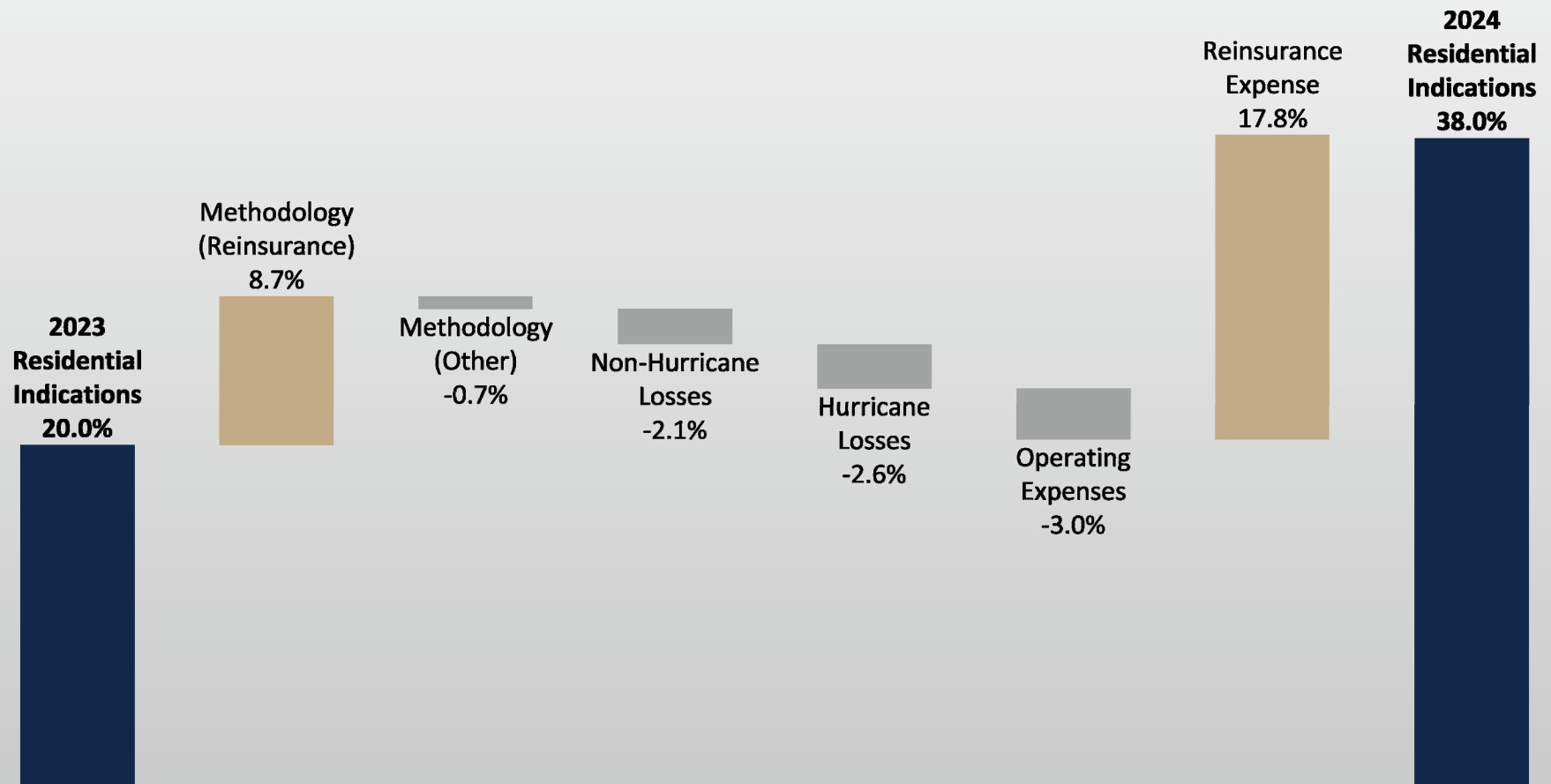
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- The Loss and LAE Ratio includes provisions for:
  - Hurricane losses and loss adjustment expenses
  - Non-hurricane losses and loss adjustment expenses
- The Fixed Expense Ratio includes:
  - General operating expenses
  - Net cost of reinsurance  
(total premiums less expected average annual recoveries)
  - Any debt service outstanding on public securities  
(no debt service is included in the 2024 indications)
- The Variable Expense Ratio includes:
  - Commissions, taxes, licenses and fees
  - Provisions for CRTF and contingencies

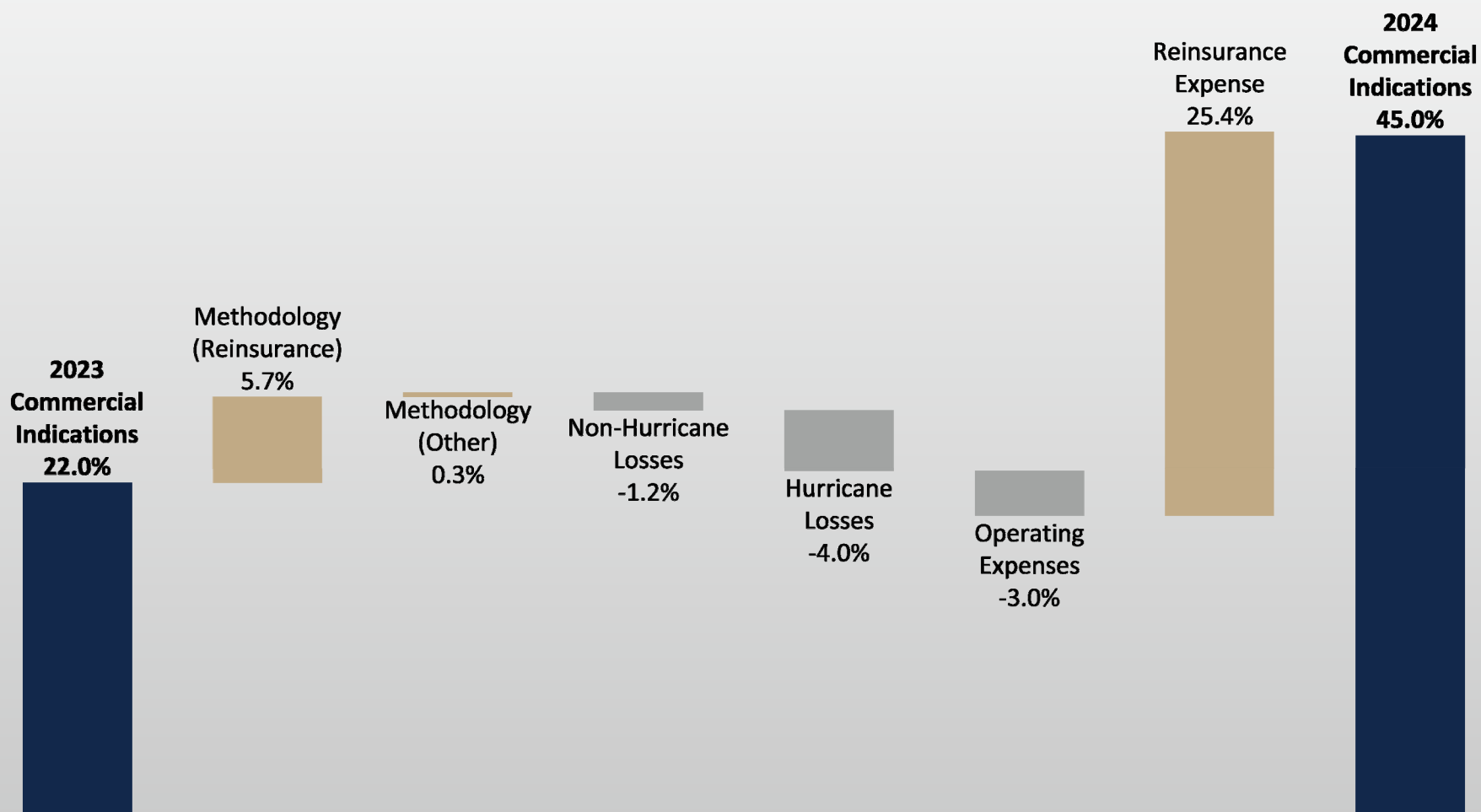
# 2024 Rate Adequacy Analysis

Rate Element	Residential					Commercial				
	2021 Review	2022 Review	2023 Review	2024 Review	2024 vs. 2023	2021 Review	2022 Review	2023 Review	2024 Review	2024 vs. 2023
Non-Hurricane Loss Provision	14.9%	14.7%	15.4%	<b>13.9%</b>	-1.5%	8.1%	6.7%	5.5%	<b>4.6%</b>	-0.9%
Hurricane Loss Provision										
Experience	41.5%	40.2%	39.2%	<b>38.2%</b>	-1.0%	51.7%	48.7%	48.1%	<b>48.4%</b>	0.3%
Modeled	52.2%	52.7%	53.0%	<b>48.1%</b>	-4.9%	64.4%	53.3%	61.1%	<b>55.1%</b>	-6.0%
Combined	46.8%	46.5%	46.1%	<b>43.2%</b>	-3.0%	58.1%	51.0%	54.6%	<b>51.8%</b>	-2.9%
Fixed Expenses										
Operating	8.1%	8.2%	7.5%	<b>5.2%</b>	-2.3%	8.1%	8.2%	7.5%	<b>5.2%</b>	-2.3%
Reinsurance	18.6%	19.1%	23.5%	<b>44.0%</b>	<b>20.5%</b>	19.7%	19.6%	26.4%	<b>50.4%</b>	<b>24.0%</b>
Outstanding Debt Service	18.6%	0.0%	0.0%	<b>0.0%</b>	0.0%	18.6%	0.0%	0.0%	<b>0.0%</b>	0.0%
Total	45.3%	27.3%	31.0%	<b>49.2%</b>	18.2%	46.4%	27.8%	33.9%	<b>55.6%</b>	21.7%
(A) Total Loss Provision plus Fixed Expenses	107.0%	88.5%	92.5%	<b>106.3%</b>	13.8%	112.6%	85.5%	94.0%	<b>112.0%</b>	18.0%
Variable Expenses										
Commissions	16.0%	16.0%	16.0%	<b>16.0%</b>	0.0%	16.0%	16.0%	16.0%	<b>16.0%</b>	0.0%
Taxes and Fees	1.9%	1.9%	1.9%	<b>1.8%</b>	-0.1%	1.9%	1.9%	1.9%	<b>1.8%</b>	-0.1%
CRTF Funding & Contingencies	5.0%	5.0%	5.0%	<b>5.0%</b>	0.0%	5.0%	5.0%	5.0%	<b>5.0%</b>	0.0%
(B) Total Variable Expenses	22.9%	22.9%	22.9%	<b>22.8%</b>	-0.1%	22.9%	22.9%	22.9%	<b>22.8%</b>	-0.1%
(C) Permissible Loss Ratio (1 - B)	77.1%	77.1%	77.1%	<b>77.2%</b>	0.1%	77.1%	77.1%	77.1%	<b>77.2%</b>	0.1%
(D) Rate Indication (A / C - 1)	39.0%	15.0%	20.0%	<b>38.0%</b>	18.0%	46.0%	11.0%	22.0%	<b>45.0%</b>	23.0%

# Reconciliation of Change in Rate Indications Residential 2024 vs 2023



# Reconciliation of Change in Rate Indications Commercial 2024 vs 2023



# Reinsurance Provision Revision

## Previous Methodology

$$\text{Reinsurance Expense \%} = \frac{\text{Reinsurance Premium} - \text{Growth} - \text{Adjusted Average Annual Loss}}{\text{Prospective Earned Premium}}$$

- Estimated the reinsurance provision at the midpoint of the contract
- Reinsurance premium and average annual loss were based on TWIA exposures as of November 30
- Assumptions (trending, exposure growth) required to align the timing difference
- Average annual loss was restated to reflect future exposure growth
- Reinsurance premium was fixed and did not reflect future exposure growth

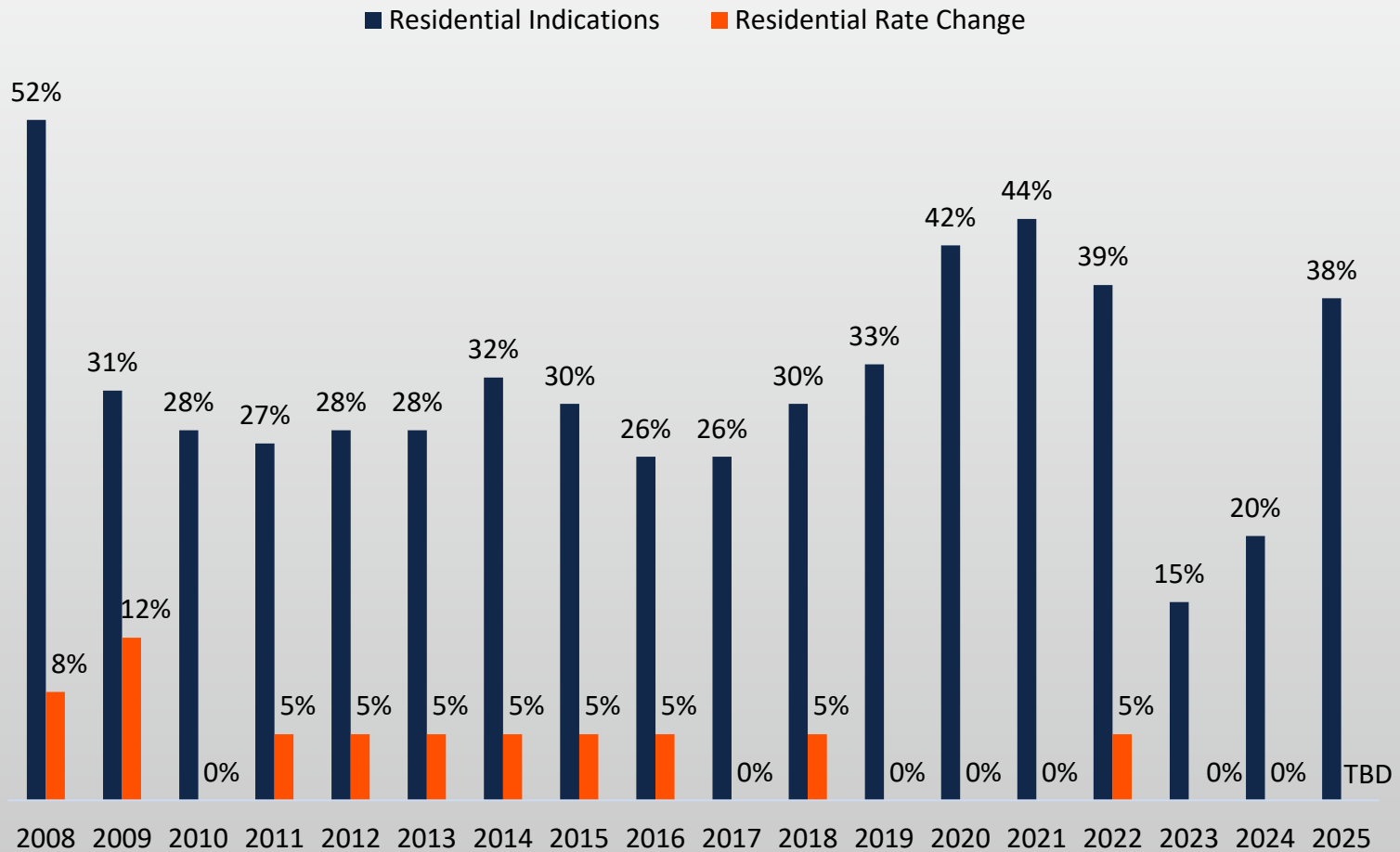
# Reinsurance Provision Revision

## Revised Methodology

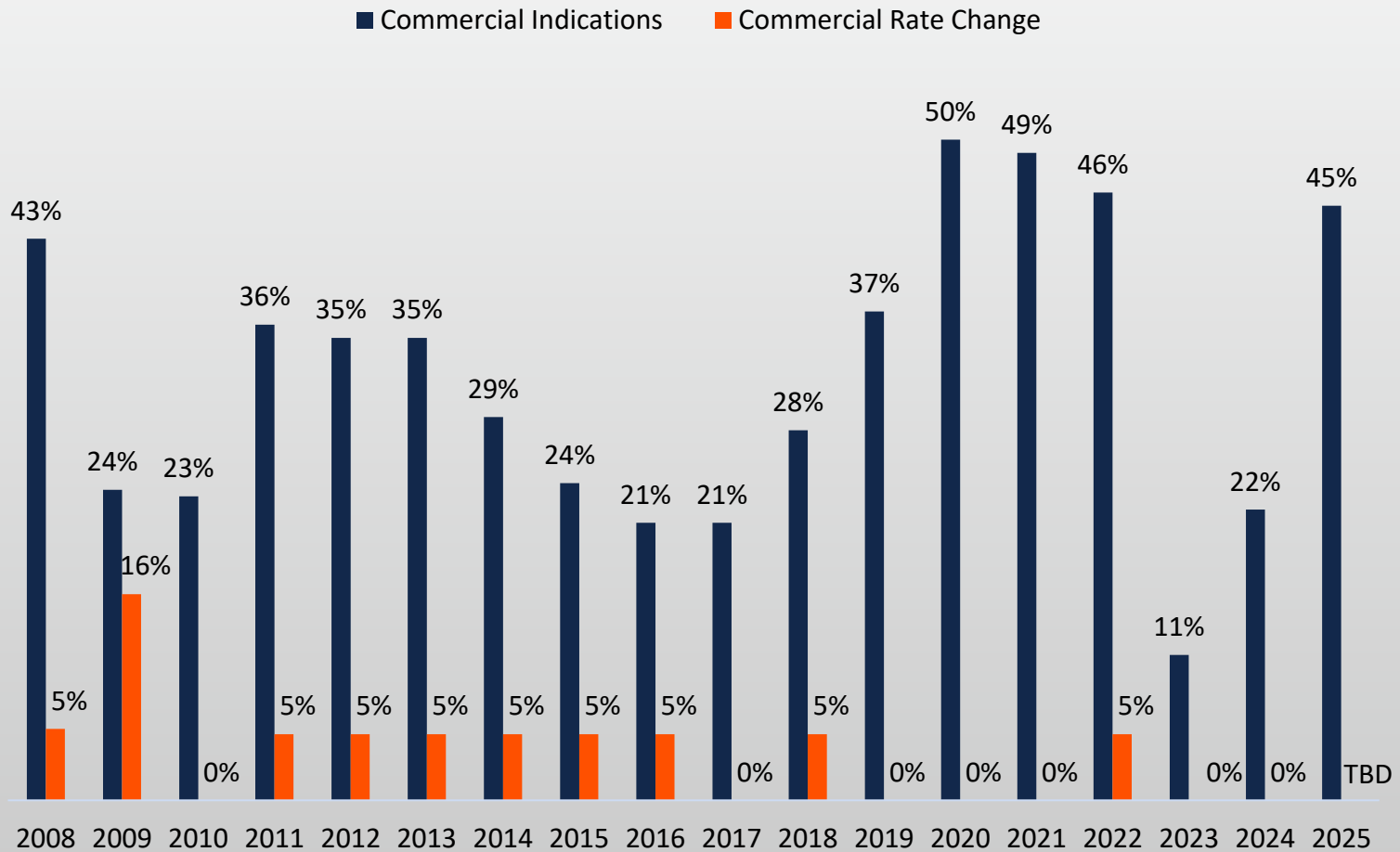
$$\text{Reinsurance Expense \%} = \frac{\text{Reinsurance Premium} - \text{Average Annual Loss}}{\text{In-Force Premium}}$$

- Estimates the reinsurance provision as of 11/30
- Reinsurance premium and average annual loss are based on TWIA exposures as of November 30
- No growth assumptions needed
- Assumes the net cost of reinsurance will grow proportionally with the in-force premium as exposures increase
- More actuarially sound as it is based on actual information and requires fewer assumptions for future growth

# Residential Rate Indications vs Rate Changes 2008-2025



# Commercial Rate Indications vs Rate Changes 2008-2025





# Questions

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