

Implementing a Property Appraisal Program Right for YOU!

NLC-RISC Staff Conference 2023

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October 24, 2023

Some of it you learn the hard way
Some of it you read on a page
Most of it comes with age
A bunch of it you maybe can't use
I know I don't probably know what
I think I do
But there's somethin' to... Some of
it.

Eric Church – “Some Of It”

I. Issues Driving the Need

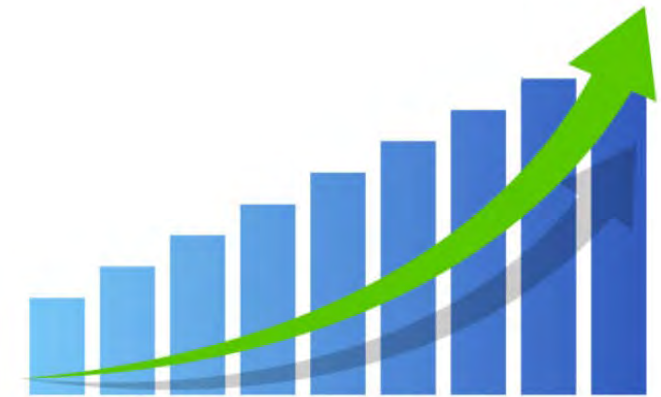
What's Going On???

COVID-19

Economy & Construction Trends

Ongoing Climate Considerations

Underwriting Demands

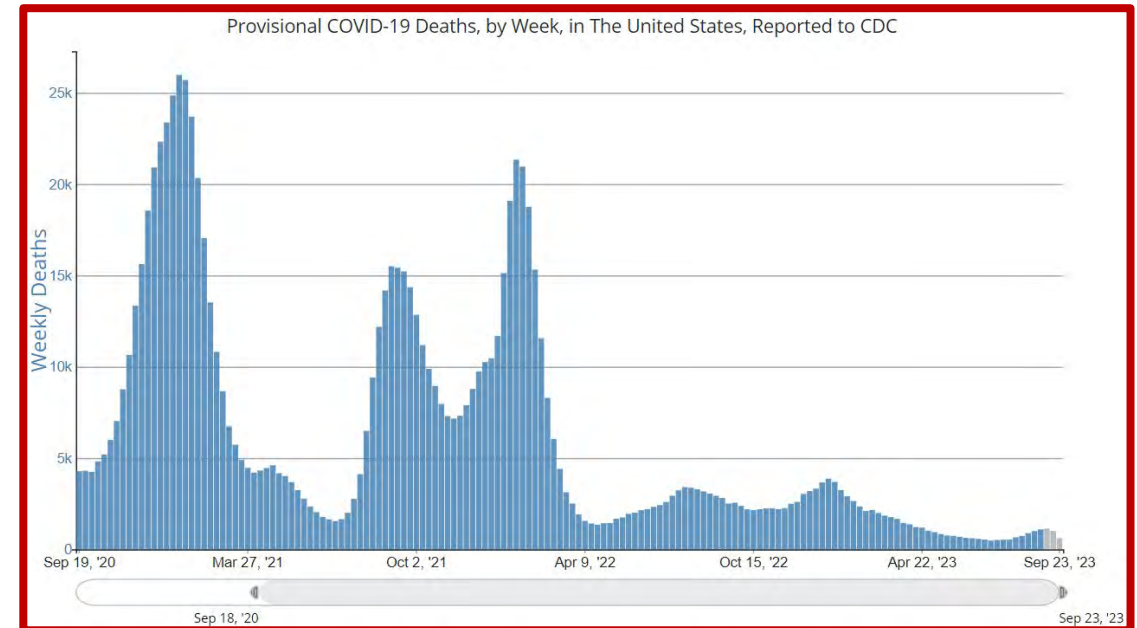
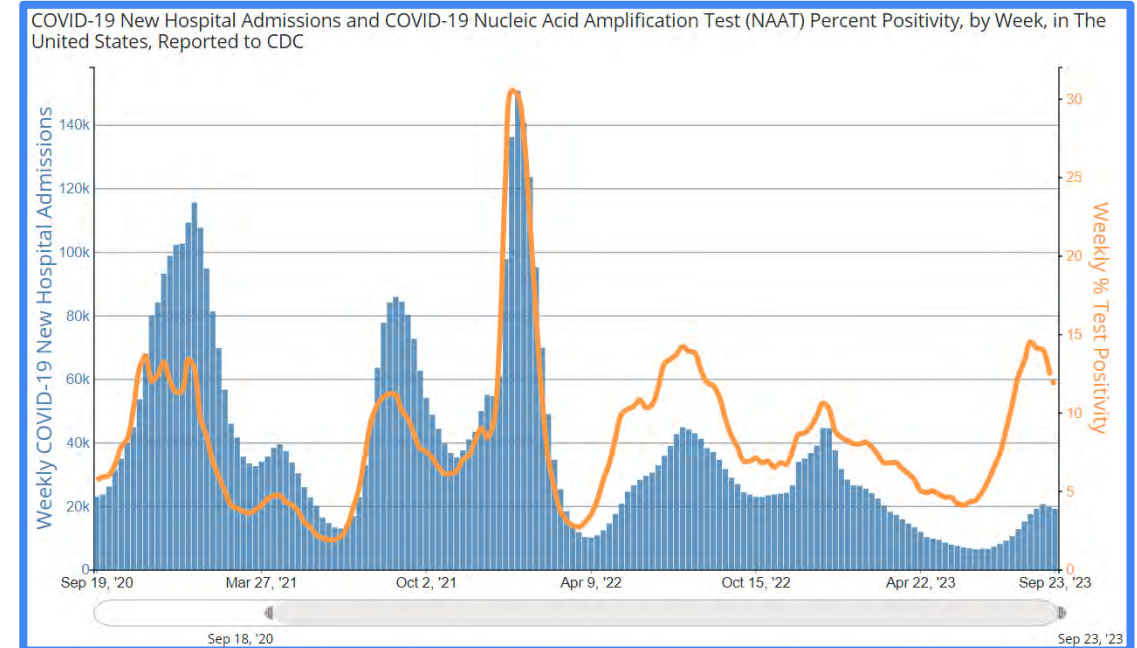


COVID-19 Then & Now

2020-22 Impacts:

- Immediate
 - Economy Shutdown
 - Supply Chains Disruptions
- Longer-Term
 - **Demand Surge**
 - Budget Impacts
 - Changes in Labor Practices (and Costs!)
 - Remote Workplace & Increase in Vacancy

2023-24 Impacts?: TBD



Demand Surge

Why Maui's rebuilding effort will be so expensive

By Chris Isidore, CNN - Updated 6:23 PM EDT, Fri August 18, 2023

Highlights:

- Over 2,200 homes and structures impacted
- Limited construction resources (shipping to HI)
- Average cost of construction is already >40% higher than mainland (Verisk)...
 - Lumber 35-40% higher (before fire); PLUS restrictions on imported lumber (treating)
 - Labor costs among the highest in the US; AND not mobile (imagine housing imported labor).

- Overall Unemployment Rate at 3.8% (Sept '23)
 - Construction Unemployment at 3.8% (Sept '23)
- Targeted Government Spending (\$\$trillions)
 - Over \$4.6T spent/obligated in COVID relief (<https://www.usaspending.gov/disaster/covid-19>)
 - More in pipeline... (i.e. Infrastructure \$1.2T; incl Tax Incentives for EV, CHIPS Act, other green projects)
- Housing vs. Commercial – distinct differences
- Int Rates up, but from Historic Lows (**Bond Issues 80%+ passing, nationally – up 10% over 2022**)
- Inflation – **CPI** vs. **PPI**

Construction Employment Rises By 11,000 Jobs In September But Firms Struggle To Fill Openings Despite 5.5 Percent Increase In Hourly Pay

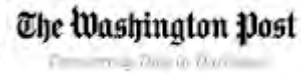
Posted: October 6, 2023 | Tradewinds (<https://www.dcd.com/articles/category/tradewinds>)



Economic Trends: US (a.k.a. “No Free Lunch”)

ECONOMIC POLICY

U.S. deficit explodes even as economy grows

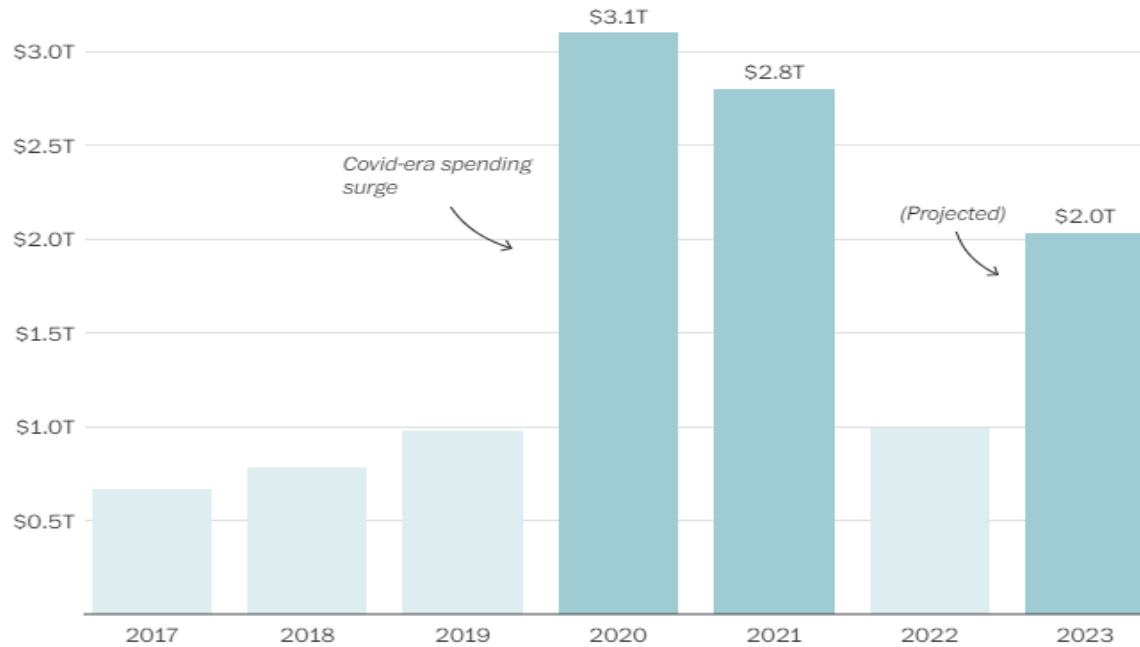


A strong economy usually reduces the deficit. Not this time.

By Jeff Stein - September 3, 2023 at 6:00 a.m. EDT

Deficit surges again after briefly falling

Despite falling dramatically in 2022, the annual spending imbalance has jumped back up this year

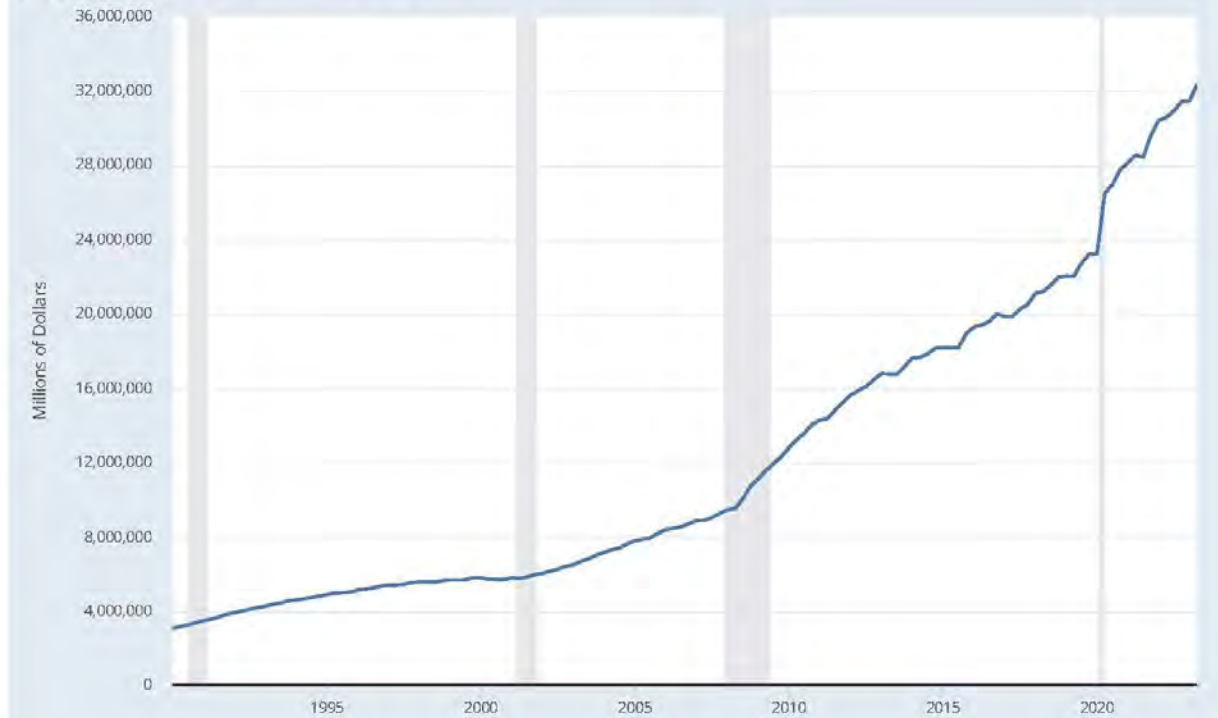


Deficit numbers in trillions. Covers fiscal year. Estimates exclude student debt cancellation.

Source: Committee for a Responsible Federal Budget

JEFF STEIN / THE WASHINGTON POST

FRED — Federal Debt: Total Public Debt



Source: U.S. Department of the Treasury, Fiscal Service

fred.stlouisfed.org



moneywise yahoo/finance

Serah Louis

Fri, October 6, 2023 at 4:30 AM PDT

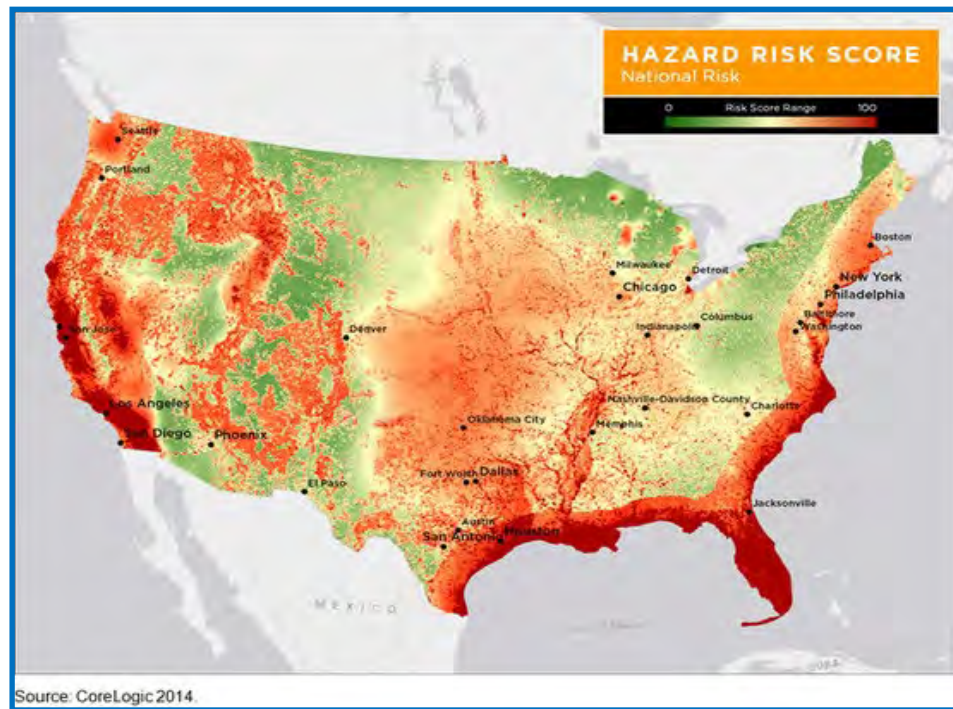
America is now paying more in interest on its record \$33 trillion debt than on national defense — here's who holds the IOUs



Climate Considerations

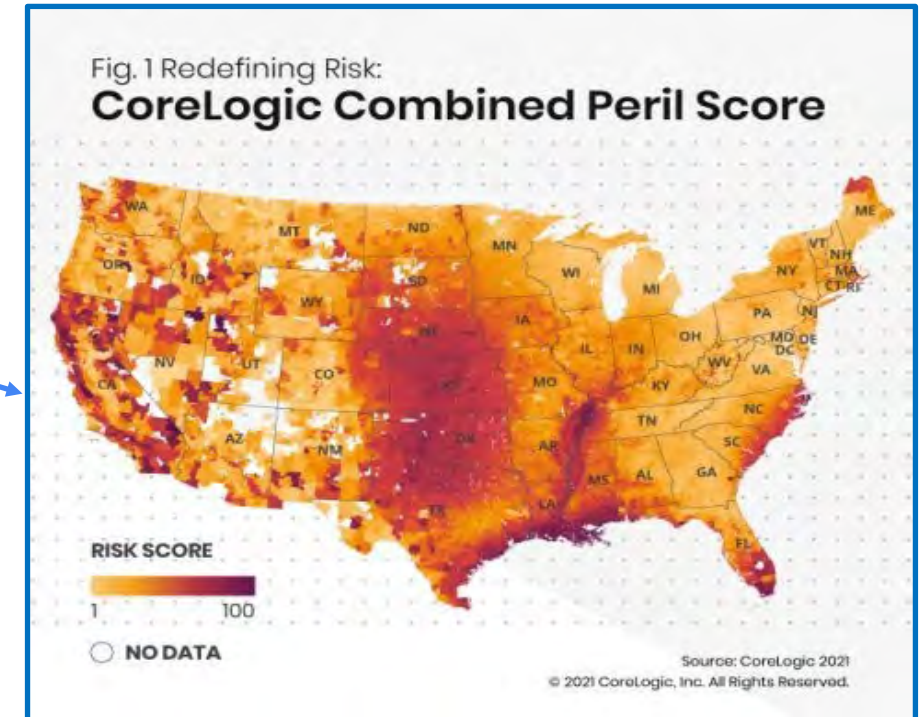
Unprecedented Events

- Traditional Coastal Concerns ('20-'22 worst 3 consecutive)
- Wildfire Losses – 2020/21 record years; more ongoing
- Convective Storms – Recent derechos ~ \$Bs in losses
- CA Tropical Storm AND 5.1 Quake 8-20-23... really???



Major Risks:

- Flood
- Surge
- Hurricane Wind
- Wildfire
- Quake
- Hail
- Tornado
- SL Wind
- Sinkhole



Insured property losses from Hawaii wildfires estimated at \$3.2B: KCC

Posted On: Aug. 15, 2023 4:49 PM CST Matthew Lerner

BUSINESS INSURANCE.



Climate Considerations



Underwriters taking more notice of secondary perils as losses rise: Best

Secondary peril events like **wildfires, tornadoes, and severe thunderstorms** now comprise a larger portion of insured losses, meaning both personal and commercial lines property underwriters must take this rising risk into accounts when modeling potential losses and setting rates, according to a recent report from AM Best.

Advisen Front Page News - Monday, January 24, 2022

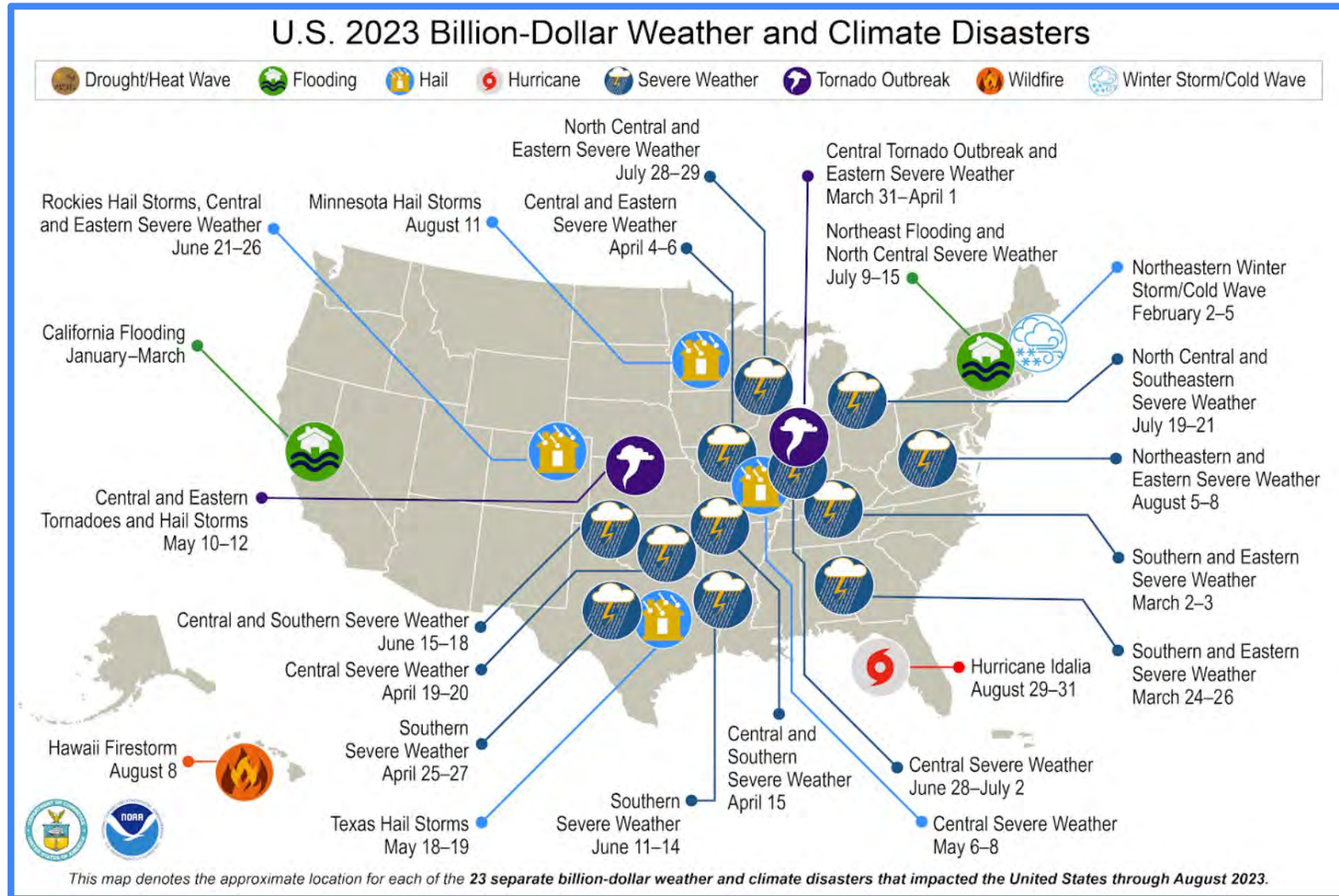
'Secondary perils' are now the costliest natural disasters: Gallagher Re

Zywave | Advisen Front Page News - Thursday, October 19, 2023

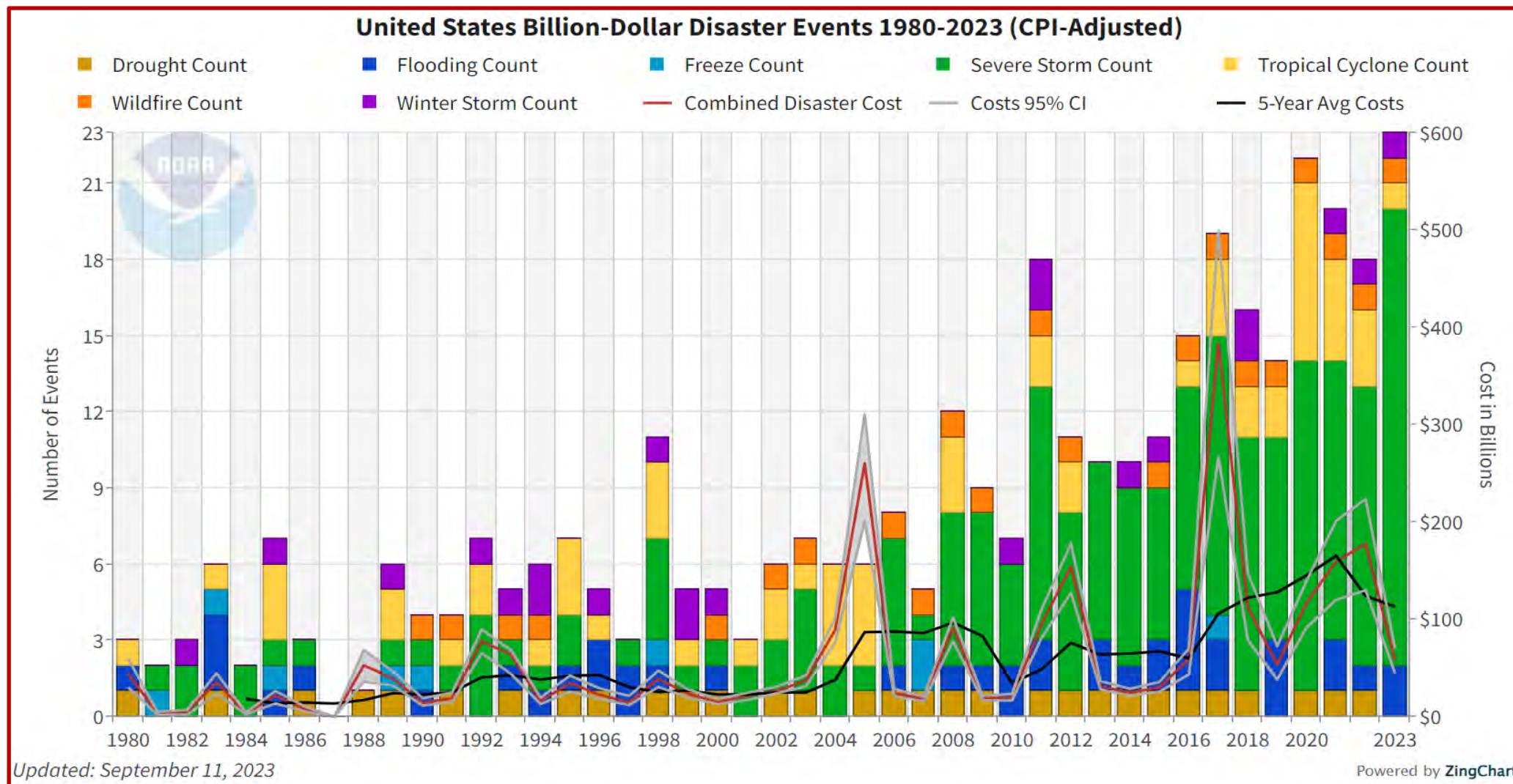
Note: Severe Convective Storms alone, contributed 65% of the \$93 billion in insured losses (through 9/30) this year.



Climate Considerations – 23 & counting

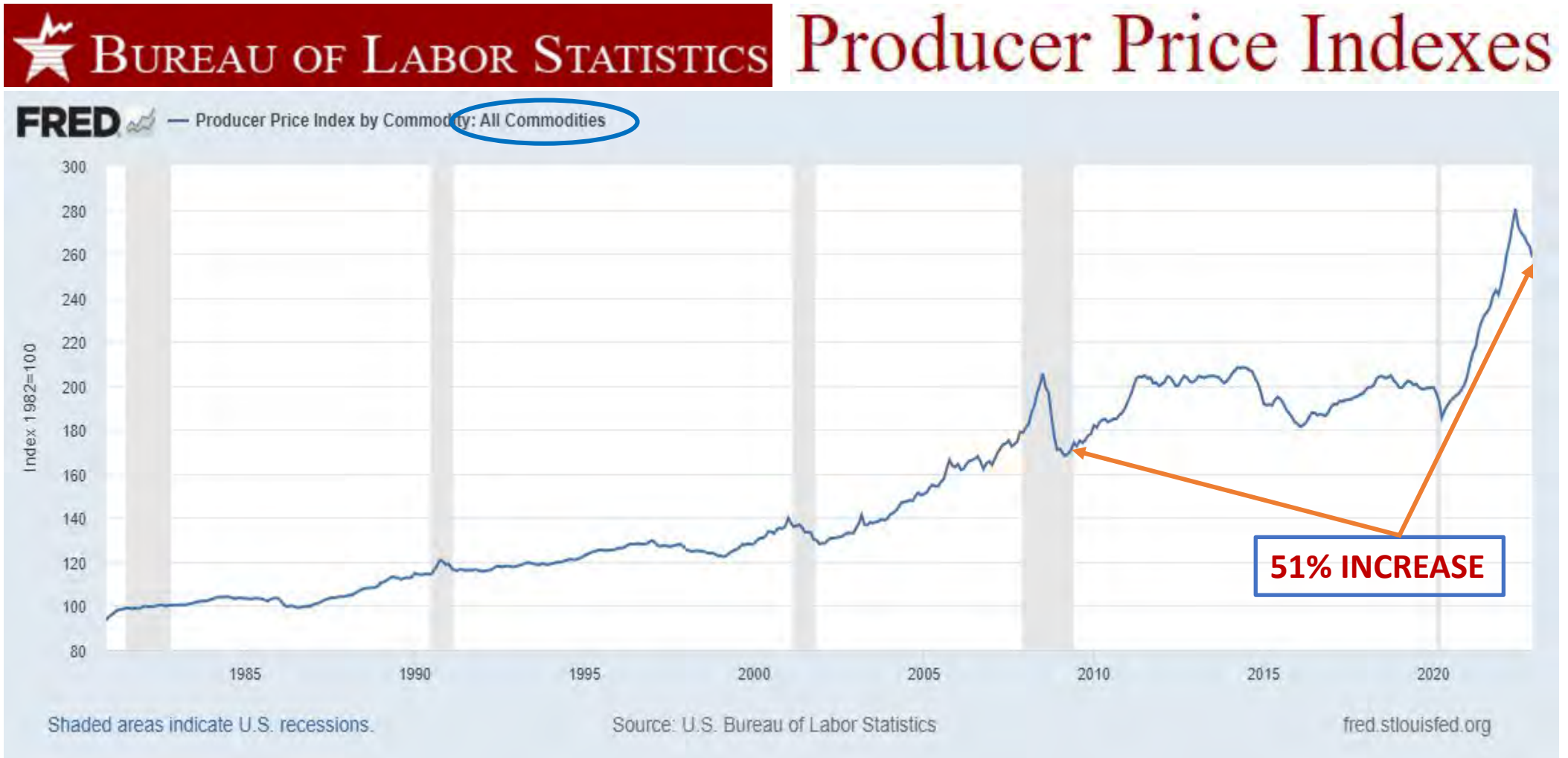


Climate Considerations



II. Property Value Trends – Lookback Perspective

Annual Cost of Construction - History

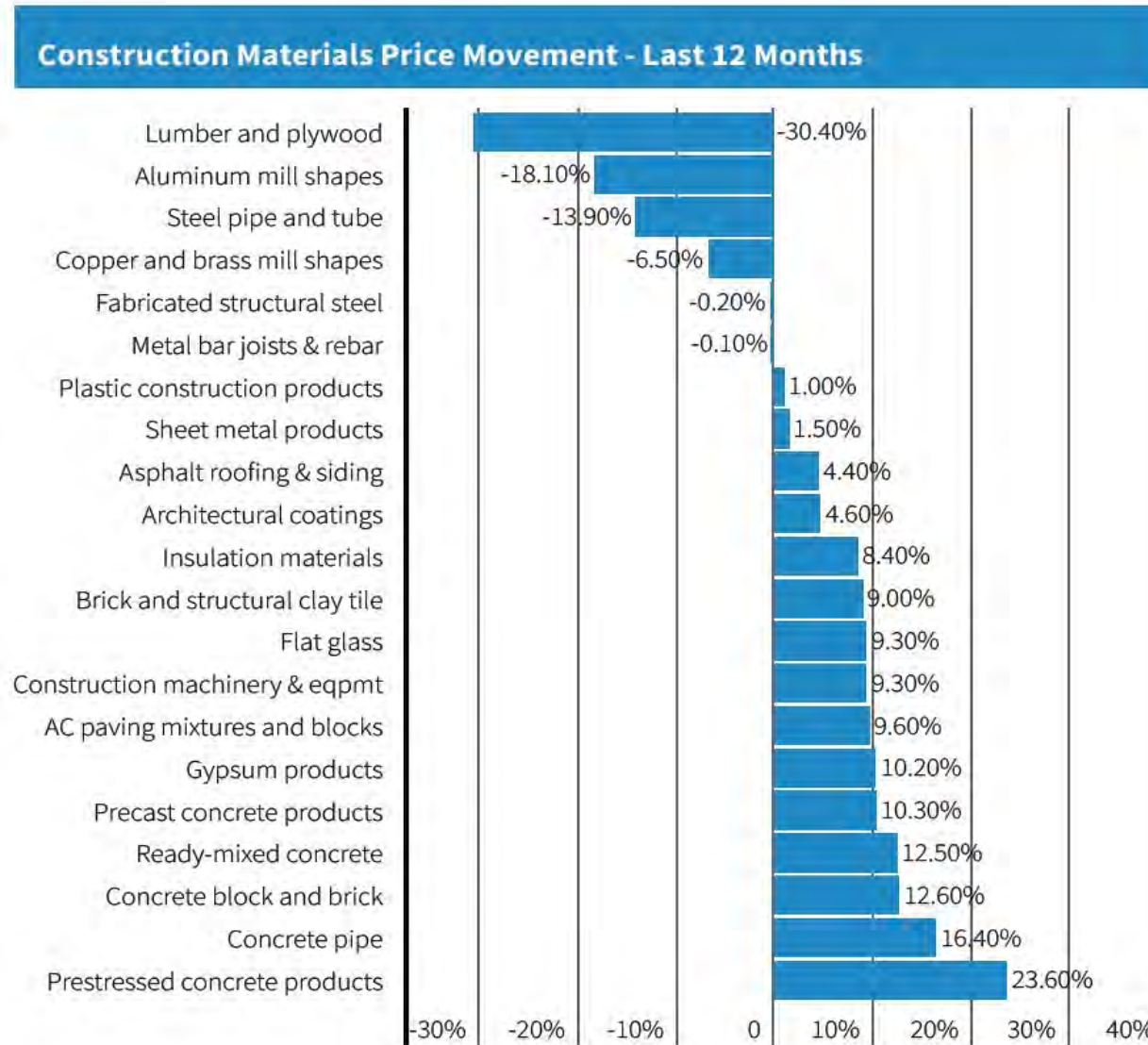


Annual Cost of Construction - History



Cost of Construction – Component of Focus

➤ Increased Materials Costs



SOURCE: U.S. Bureau of Labor Statistics

Copyright © 2023 Cumming Management Group, Inc.

Annual Cost of Construction - History

PPI Industry Data

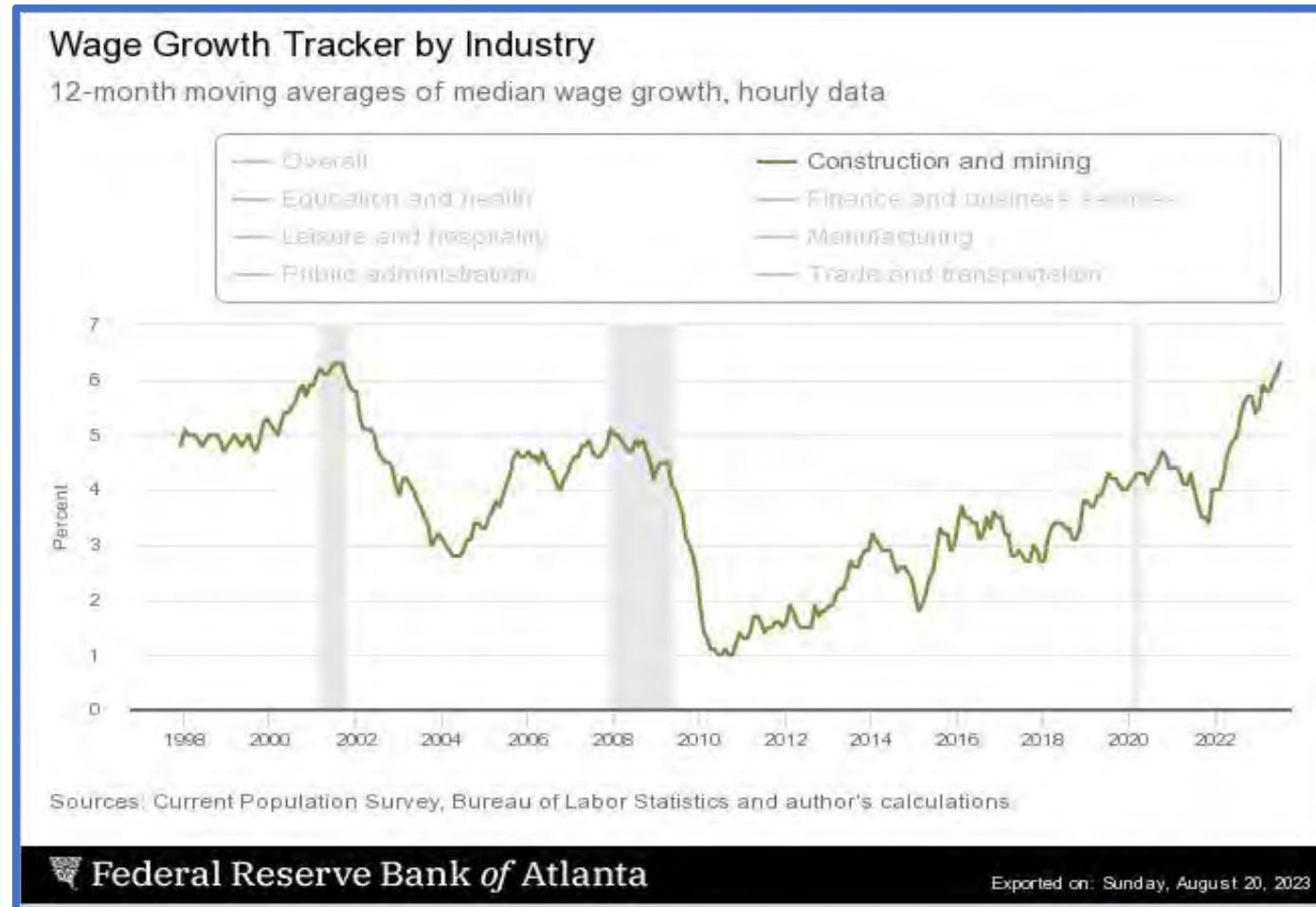
Series Id: PCU236223236223
Series Title: PPI industry data for New office building construction, not seasonally adjusted
Industry: New office building construction
Product: New office building construction
Base Date: 200606



40.5%
Increase

Cost of Construction – Overlooked Component

➤ Increased Labor Costs



Cost Increases – Other Asset Classes


➤ Is this Only Impacting Buildings???

ENR EQUIPMENT
FIRST QUARTERLY COST REPORT

Demand for Heavy Equipment Remains Strong as Prices Show Signs of Stabilizing

Pandemic jitters give way to seasonal price trends, but new iron is still on backorder **By Jeff Rubenstone**

- 2021 to 2023:
- Mobile Equipment + 22.9%
 - Ave ALL Contents + 26.5%
 - Office FF&E + 23.3%



CoreLogic

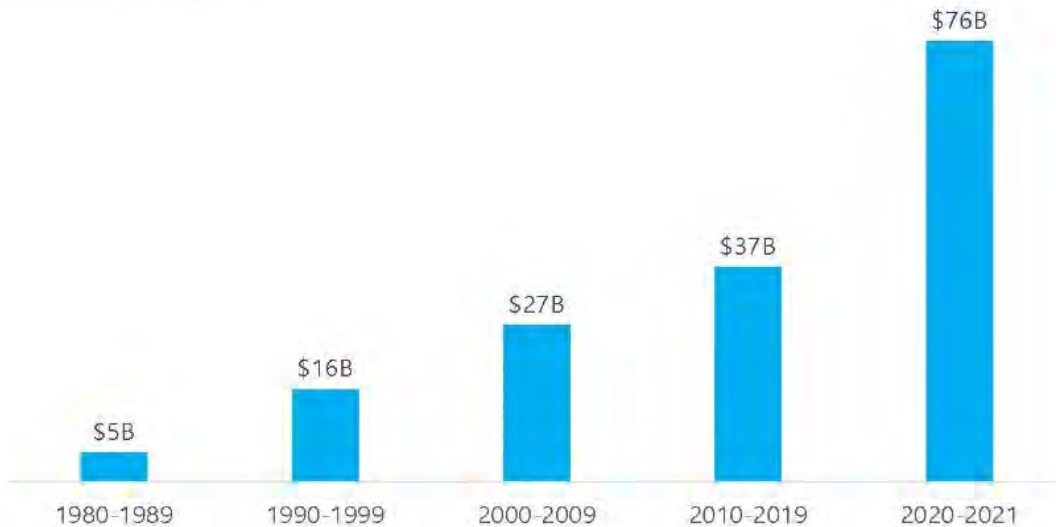
Marshall & Swift® Valuation Service

III. Reactions – Reinsurer & Insured “ITV”

Hard Property Market – Drivers:

- Ongoing **CAT loss events**
 - Wildfires / Convective Storms / Winter Storms
 - Increased **scrutiny of underwriting data** (modeled predictions)
- Claims history that suggests **ITV weaknesses** (undervalued)

FIGURE 4: SINCE THE 1980s, AVERAGE ANNUAL CATASTROPHE LOSSES IN THE U.S. HAVE RISEN AT AN EXPONENTIAL PACE.



Sources: Property Claims Service, a Verisk Analytics business (1980-2019); 2020 and 2021 figures from Munich Re; Insurance Information Institute; University of South Carolina, Risk and Uncertainty Management Center

Global Modeled
Catastrophe Losses  2023 WHITEPAPER

Average (global) annual modeled catastrophe losses hit \$133B: Verisk

Advisen Front Page News - Monday, September 11, 2023

Carrier
Management

View this article online: <https://www.carriermanagement.com/news/2023/03/28/246784.htm>

APCIA Says Property Insurance Market 'Hardest in a Generation'

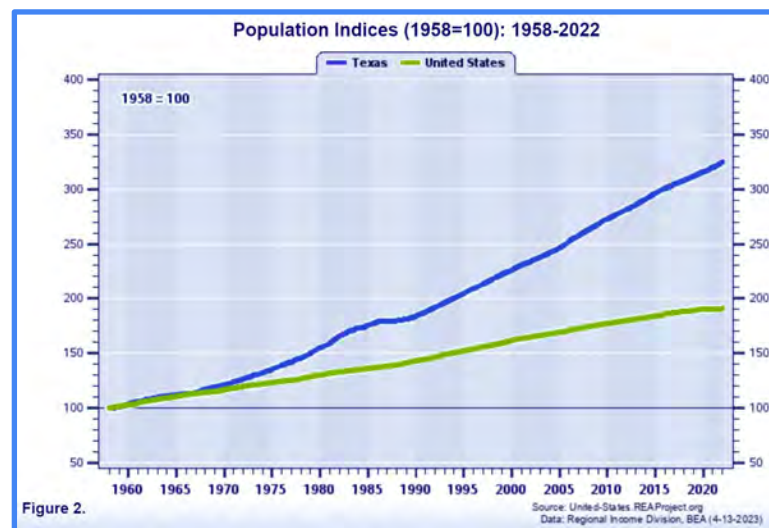
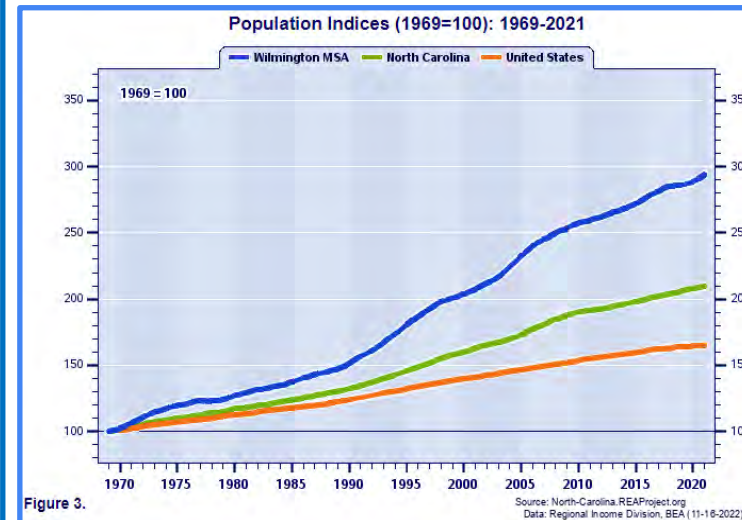
March 28, 2023 by Jim Sams (/author/jim-sams/)

A combination of **historic high inflation** and a **growing frequency of natural catastrophes** is creating the hardest market in a generation for property insurance, the American Property and Casualty Insurance Association says in a new white paper...

"The **growth of population, housing and businesses in hazard-prone areas** are **exacerbating the effects of climate change**, leading to more frequent and severe catastrophe losses," stated Karen Collins, the APCIA's vice president, property and environmental, in a press release. "The **higher costs of capital and reduced reinsurance capacity** are further exerting upward pressure on insurance rates and may result in **stricter underwriting in catastrophe-exposed markets**."

APCIA noted that the **U.S. inflation rate hit a 41-year high of 8 percent in 2022**, peaking at 9.2 percent last June. Insurance claims have risen even faster, contributing to underwriting losses that pushed the estimated **combined loss ratio for property casualty up to 104** according to a preliminary estimate by A.M. Best, the report says. That was the first underwriting loss since 2017.

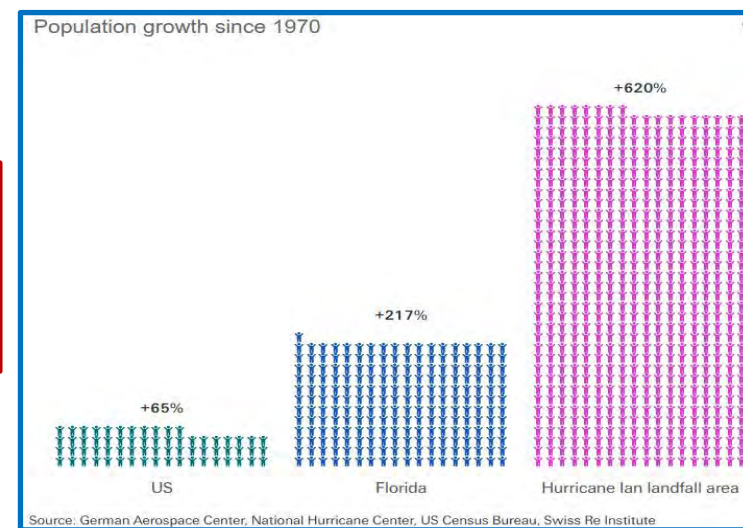
Both claims frequency and claims severity play a role in those losses. The report says **2022 was the eighth year in a row that the U.S. suffered 10 or more catastrophes with losses exceeding \$1 billion**. Natural disaster losses from 2020 to 2022 exceeded \$275 billion, the highest-ever three-year total for U.S. insurers.



Improved Florida construction offset by population gains: Swiss Re

Sep. 20, 2023

BUSINESS INSURANCE®



Underinsured Properties Are Crushing Reinsurers. Why Proper Valuations Will Be a Focus for Years to Come

Given the factors currently buffeting the property market, businesses need to get much sharper on valuations.

By: **Alex Wright** | March 8, 2023



“Every time we put a submission out in the marketplace, we are **asked by the underwriter about the client’s process for calculating replacement costs**,” said Michael Rouse, U.S. property practice leader at Marsh. “**They want to know how their property portfolio has changed year on year, how they do a valuation of their building and contents**, and what their business interruption procedure is.”

“**It all starts with an accurate valuation**,” said Michael LaRocca, head of property and specialty for North America at Swiss Re. “**That allows us to model for expected losses** and therefore ensure the insured receives the best coverage.”

Hard Property Market – Reaction:

 **GuyCarpenter**

2023 MONTE CARLO

Global Specialties 2023 Market Update

“In this current environment, preparation is key. The ability of clients to articulate their portfolio effectively and demonstrate the success of their underwriting strategy will be central to productive negotiations.”



James Boyce
CEO, Global Specialties

9 Factors Affecting Property Insurance in 2023

By: R&I Editorial Team (<https://riskandinsurance.com/author/risk-editorial/>) | August 1, 2023

Topics: [July/Aug. 2023 Issue](https://riskandinsurance.com/category/2023-issues/july-aug-2023-issue/) (<https://riskandinsurance.com/category/2023-issues/july-aug-2023-issue/>) | [Risk Matrix](https://riskandinsurance.com/category/risk-matrix/) (<https://riskandinsurance.com/category/risk-matrix/>)

The longer the time between valuation adjustments, the greater the difference between the replacement cost of your property and the existing valuation. And while it's always been important to check property values for accuracy, the recent market turbulence and shift in costs calls for even more frequent review.



Note: The Risk Matrix is produced by the Risk and Insurance® editorial team. Liberty Mutual Insurance is the presenting sponsor and has no responsibility for the content.

Hard Property Market – Reaction:



“Carriers say insurance to value (ITV) is off by 30% or more. The difference in valuation that markets feel is needed varies greatly by region and occupancy. Carriers will be addressing this with renewals, and accounts **where values have remained unchanged and/or unsupported will see their rates increase dramatically or, in some cases, their submissions will fall to the bottom of the pile..”**

Quality of Underwriting Data

Construction

Frame, Masonry, Masonry Veneer, Superior Construction, Mixed—Masonry/Frame

Occupancy

How The Building Is Being Used For Commercial Property And Whether It Is Owner-occupant Or Renter-occupied For Homeowners And The Number Of Families For Which The Building Is Designed

Protection

Quality Of The Responding Fire Department (Incl. Whether Paid/Volunteer, Adequacy Of Water Pressure And Water Supply In The Community, Distance Of The Structure To The Nearest Fire Station, Quality Of The Fire Hydrant, And The Distance Of The Structure To The Nearest Hydrant

Exposure

Risks Of Loss Posed By Neighboring Property Or The Surrounding Area, Taking Into Consideration What Is Located Near The Property, Such As An Office Building, A Subdivision, Or A Fireworks Factory.

<https://www.irmi.com/term/insurance-definitions/cope>

Breadth of Underwriting Data

“Secondary” data

Name	Type	List
Bldg % Vacant	String	31% or More, Less than 31%
Bsmt	String	1-No Basement, 0-Basement with unknown flood protection, 2-Basement w/flood protection, 3-Basement w/out flood protection
Building Condition	String	Good, Fair, Poor
Fire Alarms	Yes/No	
Is Building Leased?	String	No, Yes See Narrative
Is Building Occupied?	String	31% or More, Less than 31%
Number of Buildings	Number	
RMS Const. Class	String	0, 1, 1A, 1A1, 1A2, 1B, 1B1, 1B2, 2, 2A, 2A1, 2A2, 2B, 2B1, 2B2, 2B3, 2C, 2C1, 2C2, 3, 3A, 3A1, 3A2, 3A3, 3A4, 3A5, 3A6, 3B, 3B1, 3B2, 3B3, 3B4, 3B5, 3B6, 3C, 4, 4A, 4A1, 4A2, 4A3, 4A4, 4A5, 4B, 4B1, 4B2, 4C, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 32, 36, 46C, 47, 47A, 47B, 49C, 50, 51
Roof Deck	String	Wood, Steel - Heavy, Steel - Light, Conc - reinf, Conc - precast, Tectum, Other, None
Roof Geometry	String	Gable, Hip, Monoslope, Flat, Dome, None
Roof Pitch	String	Med (10-30), Flat, Low (<10), High (>30), None
Roof Year	Number	
Security Systems	Yes/No	
Sprinkler Type	String	0=None, 1=Wet, 2=Dry



*"All models are wrong –
but some are useful."
-- George Box*

➤ Traditional Modeling

- **RMS**
- **AIR** (Verisk/ISO)
- **EQECAT** (CoreLogic)
- **Karen Clark & Co.** (RiskInsight)
- Recent Barriers to Entry crashed



➤ Who Uses Them? **Every Major Insurer / Reinsurer**

➤ Why? **Large Portfolios of Property Analyzed & “Modeled”**

➤ History: **(3) Major Events 1989-1992, ending with Andrew (\$15b)**

[https://www.actuary.org/sites/default/files/files/publications/Catastrophe Modeling Monograph 07.25.2018.pdf](https://www.actuary.org/sites/default/files/files/publications/Catastrophe%20Modeling%20Monograph%2007.25.2018.pdf)

Quality of Underwriting Data

DATA



SORTED



ARRANGED



PRESENTED
VISUALLY



EXPLAINED
WITH A STORY



“Secondary” COPE data

- Constant Evolution
- Geographically Prioritized
- Directly Related to Pricing

Specific Requirements ???

Involves Multiple Participants:

- Pool & Appraiser (start)
- Broker?
- Reinsurer?
- Modeler / Scrubber?
- RMIS System(s)?





How Long Has It Been???

Should You Revisit Insured Property Value Estimates?

Article By: Risk Management Magazine 11-21-2021

Eight Great Issues to Consider:

1. Size of exposure and riskiness of operation (**materiality**)
2. Changes in costs (**construction cost increases**)
3. Complexity and scope of property (**unique property?**)
4. Type of capital expenditures (**amt. of recent investment**)
5. Major changes to business or operations (**vacancy??**)
6. Insurance market conditions (**rate increases???**)
7. Recent losses reveal inaccurate value estimates (**review!**)
8. Adjusting value estimates over time (**are you trending?**)

IV. Things YOU Control

Frequency of Appraisal Cycles

Each Organization is Unique - Decision Driven by:

- Underwriting Desires (internal)
- Composition of Insureds (internal/external)
 - Relative Size
 - Recent Loss History
 - Membership Stability Y-o-Y (Pools)
 - Economy / New Construction – much vs. little
- Budget / Board Appetite (internal)
- (re)Insurance Requirements (external)
- National / Local Construction Cost Changes (external)

Industry Ave: 3 – 7 Years

Specific Policy Language / Coverage

“Typical” Appraisal Exclusions:

- Site Preparation
- Foundations / Footing (below lowest occupied level)
- Underground Plumbing



Valuation Methodology

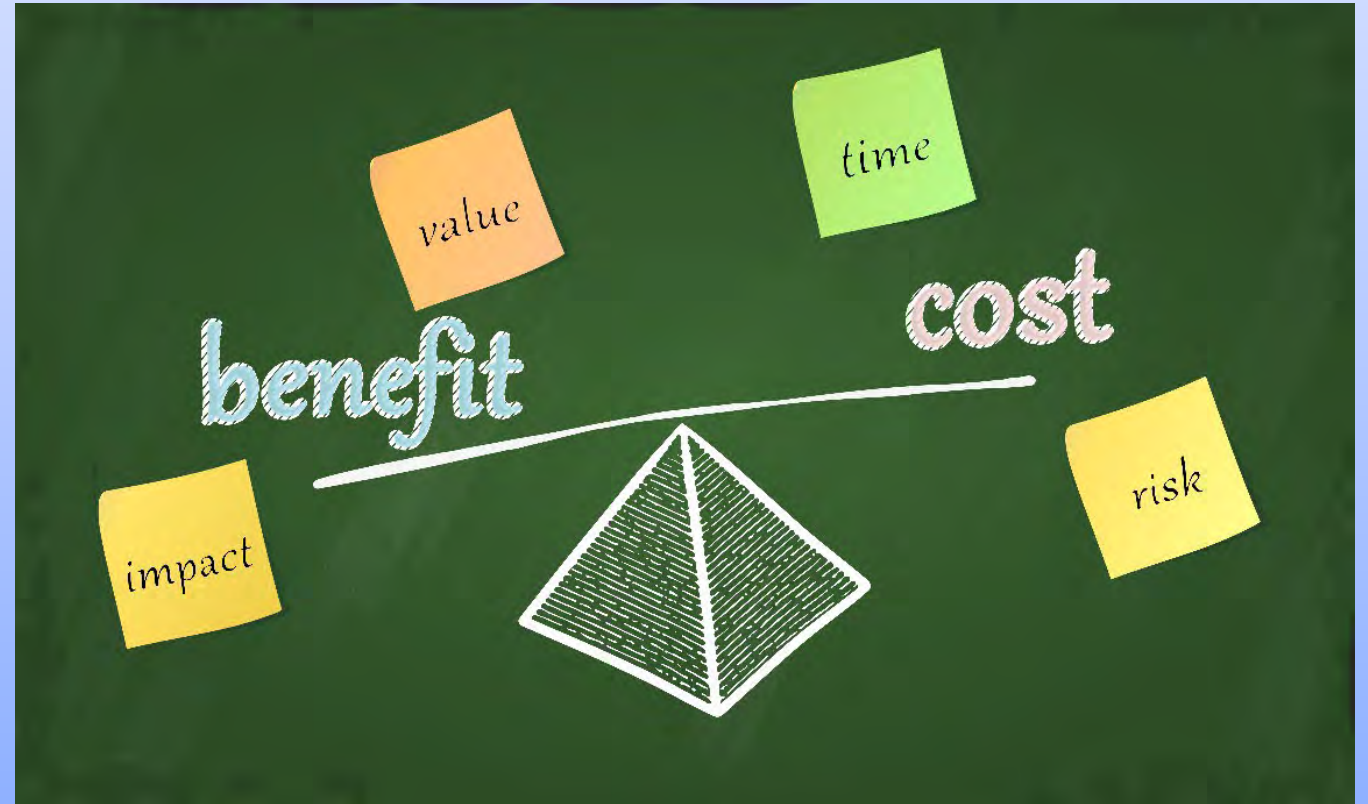
Appraisal Threshold for Structures:

- Lower Threshold = Higher Investment
- What's the Cost???

To Appraise.... vs. To Omit

HCA's Clients Range:

\$0 (all) to \$1.0 million



Valuation Methodology – Case Study

Appraisal Threshold for Structures:

- Average-sized City – (9) Lift Stations not on SOV
- > \$250k in just this one...
- Frequently missed:
 - Lift / Pump Stations (incl Generators)
 - Park & Other Remote Exposures
 - Major Additions; Significant Renovation Data



Valuation Methodology – What's **HOT**?



Valuation Methodology

**Replacement Cost
Value**

**Reproduction Cost
Value**



“Replacement Cost is...” ???

“...what your POLICY says!”

**Actual Cash
Value**

Historic Reproduction Cost Value

HCA Asset Management, LLC
Montana Association of Counties 20xx
Insurance Detail Report

As of date: 02/20xx

ENTITY:	C507R	Cascade County (Courthouse Renovation)
SITE:	023	Courthouse
BUILDING:	C507-001	HISTORIC COURTHOUSE
ADDRESS:	415 2ND AVENUE GREAT FALLS, MT 59401	
OCCUPANCY:		COUNTY COURTHOUSE
FIRE PROTECTION AND SAFETY:	AUTO FIRE PROTECTION/ALARM SYS. EMERGENCY LIGHTING EXIT LIGHTING INTRUSION SYSTEM MANUAL FIRE ALARM PULL STATIONS SECURITY CAMERAS FIRE EXTINGUISHERS	
SPRINKLERED (YES-1/ NO):	NO	
FOUNDATION:	CONCRETE SLAB STONE	

EXTERIOR WALLS:	NATIVE STONE - SOLDIAD/LAR	
ROOFING:	COPPER	
PARTITION WALLS:	DRYWALL ON STUD PLASTER ON LATH WOOD PANELING ON STUD	
CEILING:	ACUSTICAL TILE PLASTER	
BUILDING SERVICES:	ELECTRIC HEATING - CENTRAL HOT WATER PLUMBING AIRCONDITIONING-CHELLED WATER	
FLOORING:	VINYL TILE CARPETING CERAMIC TILE WOOD	
BUILDING FEATURES:	AUTOMATIC DOOR OPENERS BUILT-IN CABINETS & SHELVING BUILT-IN SEATING COVERED ENTRANCE WAY ELEVATOR/PASSENGER ROOF TOP STRUCTURE UNIQUE - SEE NARRATIVE BELOW	



SOUTH ELEVATION - ORIGINAL ENTRANCE

BUILDING	
REPLACEMENT COST NEW (RC):	\$66,000,000
EXCLUSION AMOUNT:	\$0
RC MINUS EXCLUSIONS:	\$66,000,000
PROPERTY IN THE OPEN:	\$0
PERSONAL PROPERTY:	
CONTENT VALUE:	\$0
EDP:	\$0
PERSONAL PROPERTY TOTAL:	\$0

BUILDING NOTES:
THREE LEVEL FRENCH RENAISSANCE & BEAUAUTY STYLE COURTHOUSE WITH UNFINISHED BASEMENT. FEATURES: COLUMBID ENTRANCE W/OPALITE STAIRS, LADY JUSTICE ATOP COPPER CLAD DOME STRUCTURE, FULL COPPER ROOF SYSTEM (NEW 2016), HOLLOWING PARAPET / BALUSTRADE ON PERIMETER, ORIGINAL COPPER CORNICE, INTERIOR ROTUNDA WITH MARBLE COLUMNS AND CAST PLASTER MOLDING, MECHANICALS, ELECTRICAL, WINDOWS UPGRADED (1) 1675 (EST), PLACED ON NATIONAL REGISTER 1980 #0002401. HISTORIC REPRODUCTION COST ESTIMATED LAB CODE 09H



ORIG MAIN ENTRANCE / PORTECO



GRANITE COLUMNS / STAIRS TO 2ND FLR



WEST ELEVATION



N. ELEVATION (MAIN ENTRANCE FROM LOT)



EAST ELEVATION



COPPER CORNICE, BALUSTRADE, DOME



NORTH VIEW - STONE & COPPER DETAIL



ORIGINAL LOBBY (2ND FLOOR)



2ND FLOOR LANDING - MARBLE STAIRS



2ND FLR ROTUNDA / MARBLE COLUMNS



2ND FLOOR ROTUNDA AREA



VIEW FROM LANDING INTO ROTUNDA



Annual Trending of Values

2021-23 Y-O-Y Changes
≈ 10% - 20% Increases!

RSMeans data
from **GORDIAN**

Variety of Sources

ENR
Engineering News-Record



AMERICAN
CITY & COUNTY
MUNICIPAL COST INDEX



Turner
Turner Building Cost Index

CUMMING
Building Value Through Expertise

**Handy Whitman Index
of Public Utility
Construction Costs.**

BNI Building News
A DESIGN COST DATA COMPANY
DATA YOU CAN TRUST

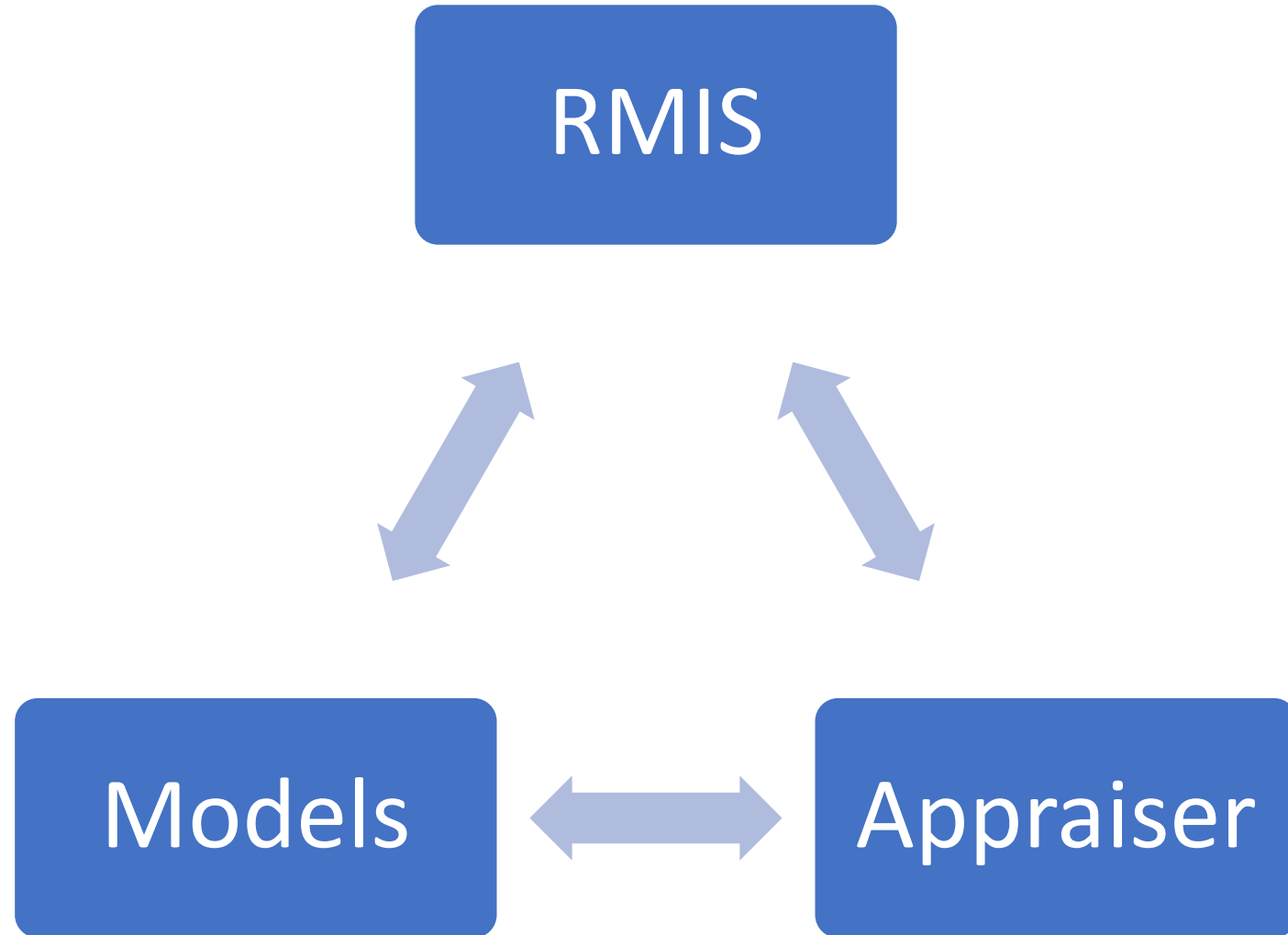
BUREAU OF LABOR STATISTICS
Producer Price Indexes

RLB Rider
Levett
Bucknall

NLC NATIONAL
LEAGUE
OF CITIES
NLC-RISC RISK INFORMATION
SHARING CONSORTIUM

Annual Trending & Data Transfer

Automate the Processes!!



Start EARLY

Everything is Relative... BUT:

- Are you starting a NEW Program?
 - Are you planning to tweak an existing one??
 - When will reinsurers/brokers need your data???
- Establish desired timelines and work backward
- Implement reasonable milestones for you/appraiser



Messaging With Members

- You Are Not Alone – Industry-wide Issues
- Avoid (now common) Policy Language Change Issues
 - Margin Clauses
 - Coinsurance Penalties
 - Increased Deductibles
 - Revised Exclusions
- Cleaning up SOV's Eliminates Uncertainty
 - Identify Unrecorded ADDS / Disposals
 - Assess Condition / Vacancy Issues
- Communicate Anticipated Changes



V. Looking Forward – 2023 & Beyond

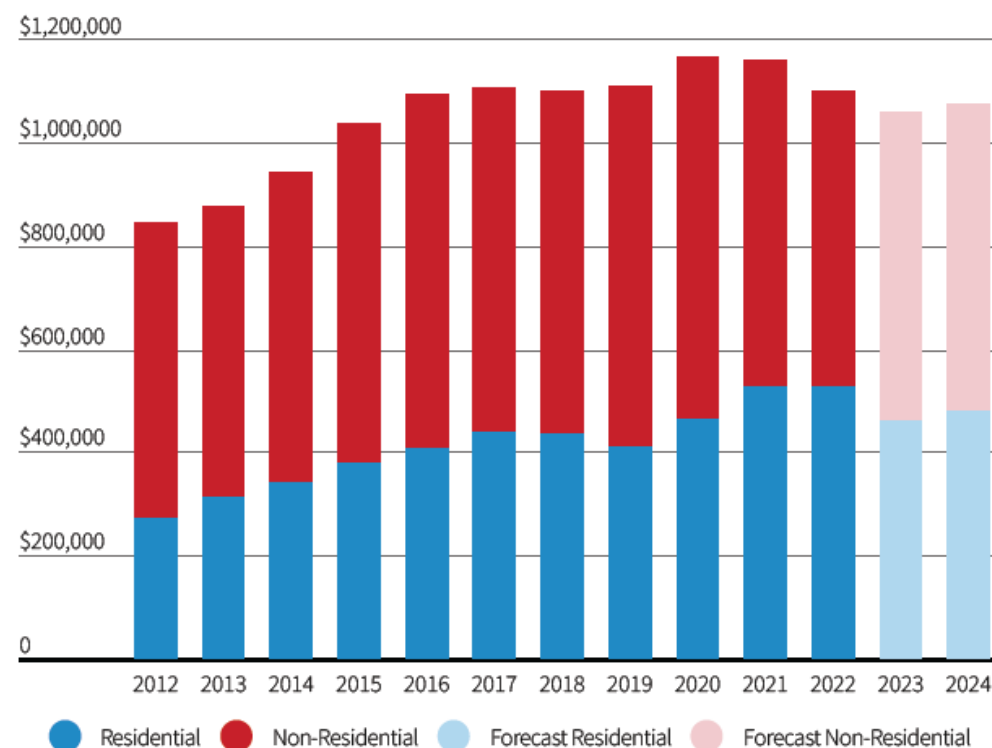
Construction Cost Trends

What's Next - Volume

- Supply Chains
- Labor Costs
- Material Costs
- Interest Rates?
- Pandemic done?
- Infrastructure
- Recession??
- War?????

TOTAL CONSTRUCTION MARKET FORECAST

(x \$1M, Nominalized 2014)



SOURCE: IHS Market



CUMMING

Construction Cost Trends

- Supply Chains
- Labor Costs
- Material Costs
- Interest Rates?
- Pandemic done?
- Infrastructure
- Recession??
- War?????

What's Next???

CONSTRUCTION
OUTLOOK
2023



Nonbuilding Construction

↑ +16%



› Nonbuilding/infrastructure construction will increase 16% in 2023 to \$281 billion as both sides of this market make gains. Public works will grow 18% to \$225 billion, and power/utilities will expand 8% to \$56.4 billion.

› Thanks to the \$1.2 trillion Infrastructure Act (IIJA), all areas of public works will expand in 2023 and four of the six sectors will grow by double digits.

Construction Cost Trends

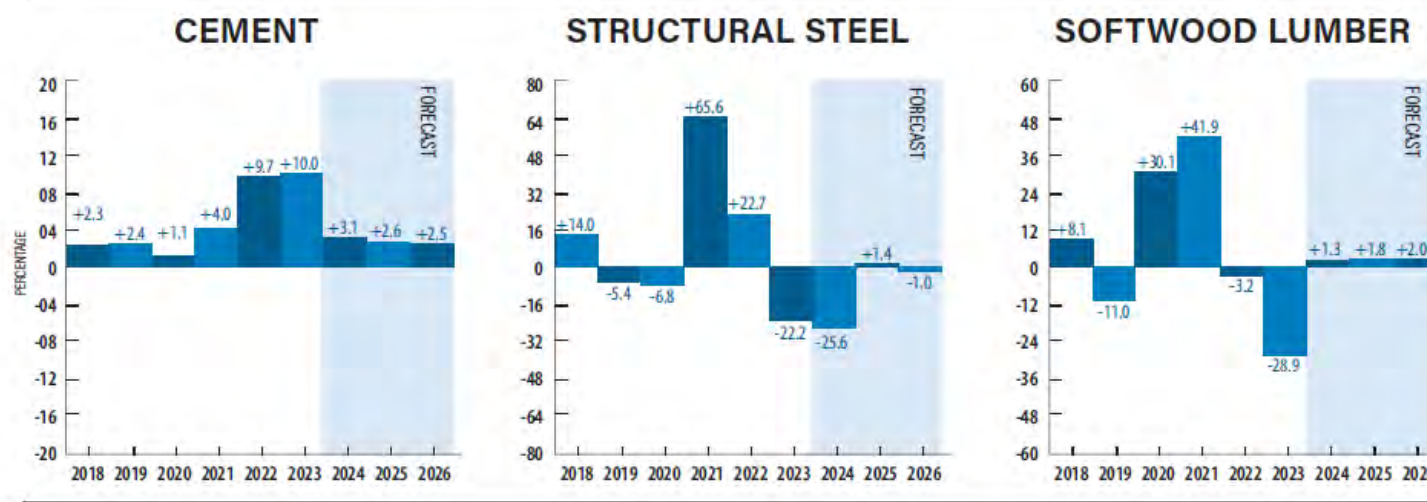
What's Next???

- Supply Chains
- Labor Costs
- Material Costs
- Interest Rates?
- Pandemic done?
- Infrastructure
- Recession??
- War?????



Recession-Resistant Construction?

Supply chain issues have pushed companies to reshore and near-shore, leading to an explosive growth in the manufacturing sector. “There’s not even a close second [among non-residential construction categories],” Basu adds. “You see \$200 billion of development in computer manufacturing plants, \$40 billion of battery manufacturing plants in development. A lot of contractors in Texas, Arizona, New York, Ohio are going to be swamped with work, even if the economy enters recession later this year.”



SOURCE: S&P GLOBAL MARKET INTELLIGENCE

Thanks!
Q & A