



**INTERNATIONAL SOFTWOOD
CONFERENCE**

OCTOBER 13, 2022

**European Timber Trade Federation
European Organization of Sawmillers
Danish Timber Trade Federation**



In the next 20 Minutes I will share-

What has IFG been doing.

What happened during Covid

How do we see the future

The New Normal, Demographics to Ponder

Bio-Cellulose

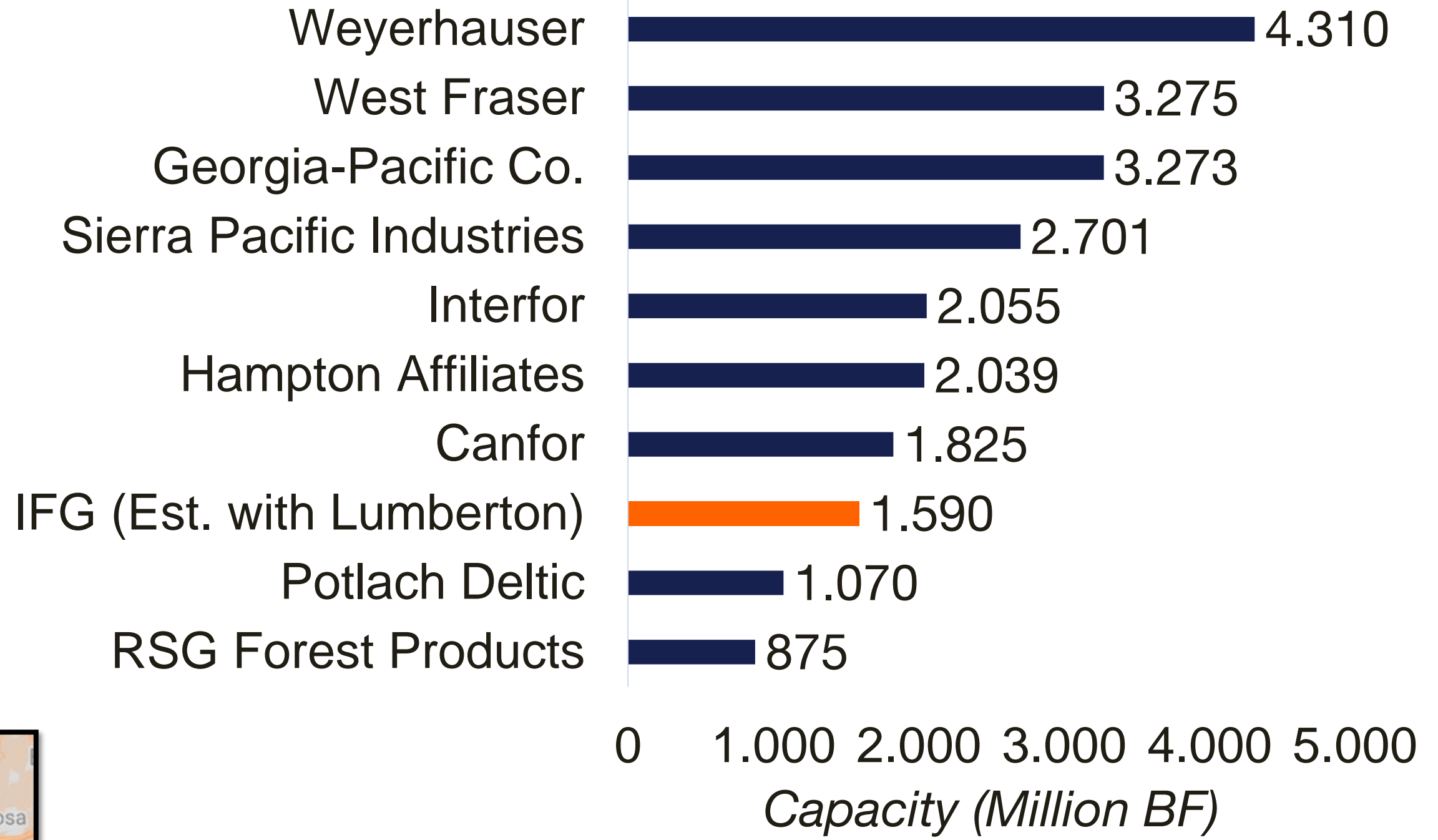
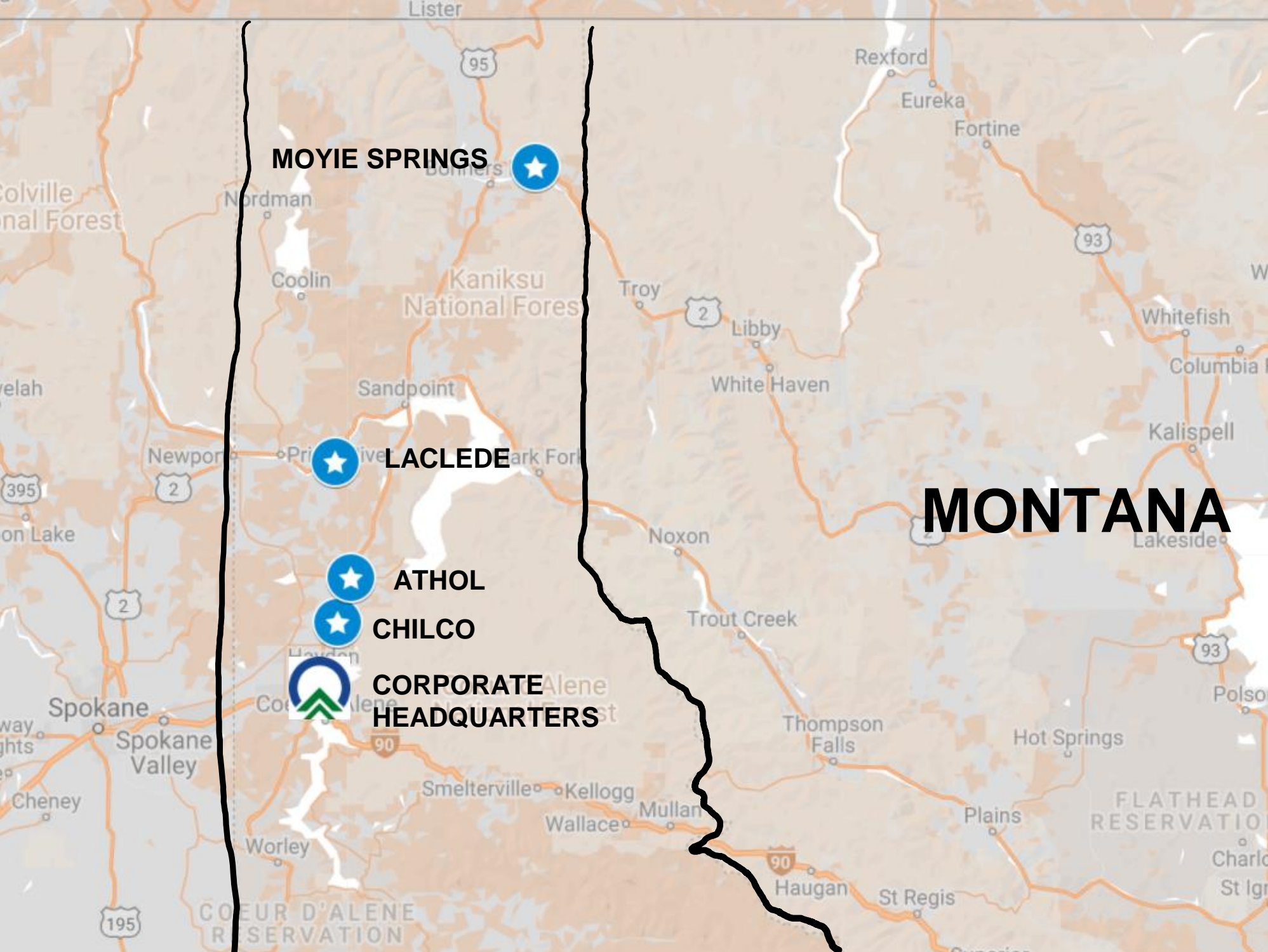
The Carbon Story

Working in improving our image

US Politics and the Up-Coming Mid-term Elections

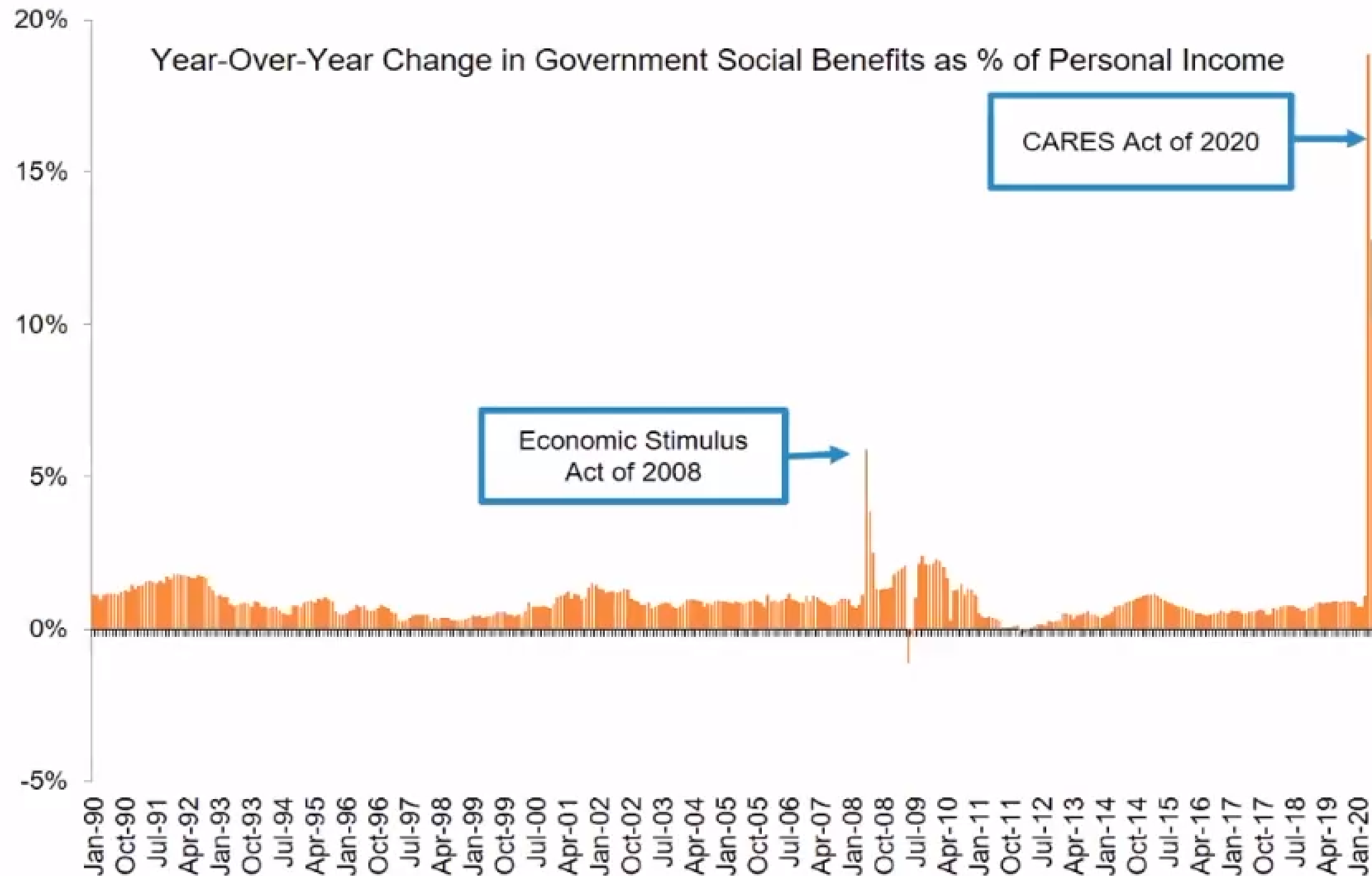
Thanks to Paul Jannke and his Team at FEA and to Dennis McGill and his team at Zelman & Associates.

Idaho Forest Group Future



Mill	Capacity (BF)	Capacity (m3)
MOYIE	200 Million BF	468 Million m3
LACLEDE	200 Million BF	468 Million m3
CHILCO	300 Million BF	702 Million m3
LEWISTON	300 Million BF	702 Million m3
GRANGEVILLE	240 Million BF	562 Million m3
LUMBERTON	350 Million BF	819 Million m3
TOTAL CAPACITY	1,590 Million BF	3,715 Million m3

Substantial Stimulus Turned the Tide



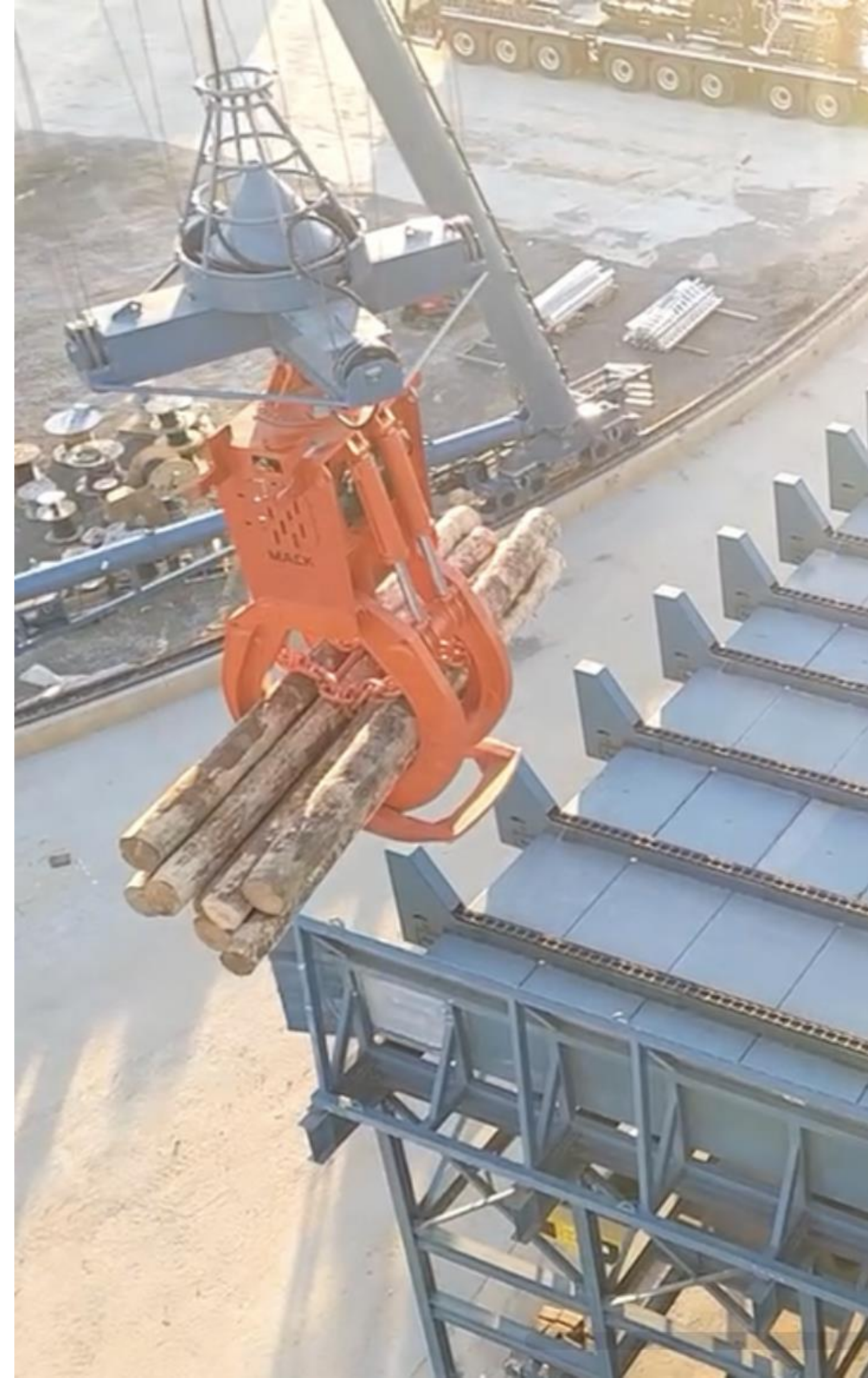
Amid Chaos, 2020 Conclusion Centered on Rates



Factor	Importance of Factor					Sustainability
Lower Mortgage Rates	★	★	★	★	★	Unpredictable
Government Stimulus	★	★	★			Uncertain
Previously Unfolding Demographics	★	★				Likely
Demographic Pull Forward	★	★				Unlikely
Second Home Surge	★	★				Unlikely
Pandemic Fears	★					Uncertain
Urban Reversal / Social Unrest	★					Uncertain
Increasing Work From Home	★					Likely

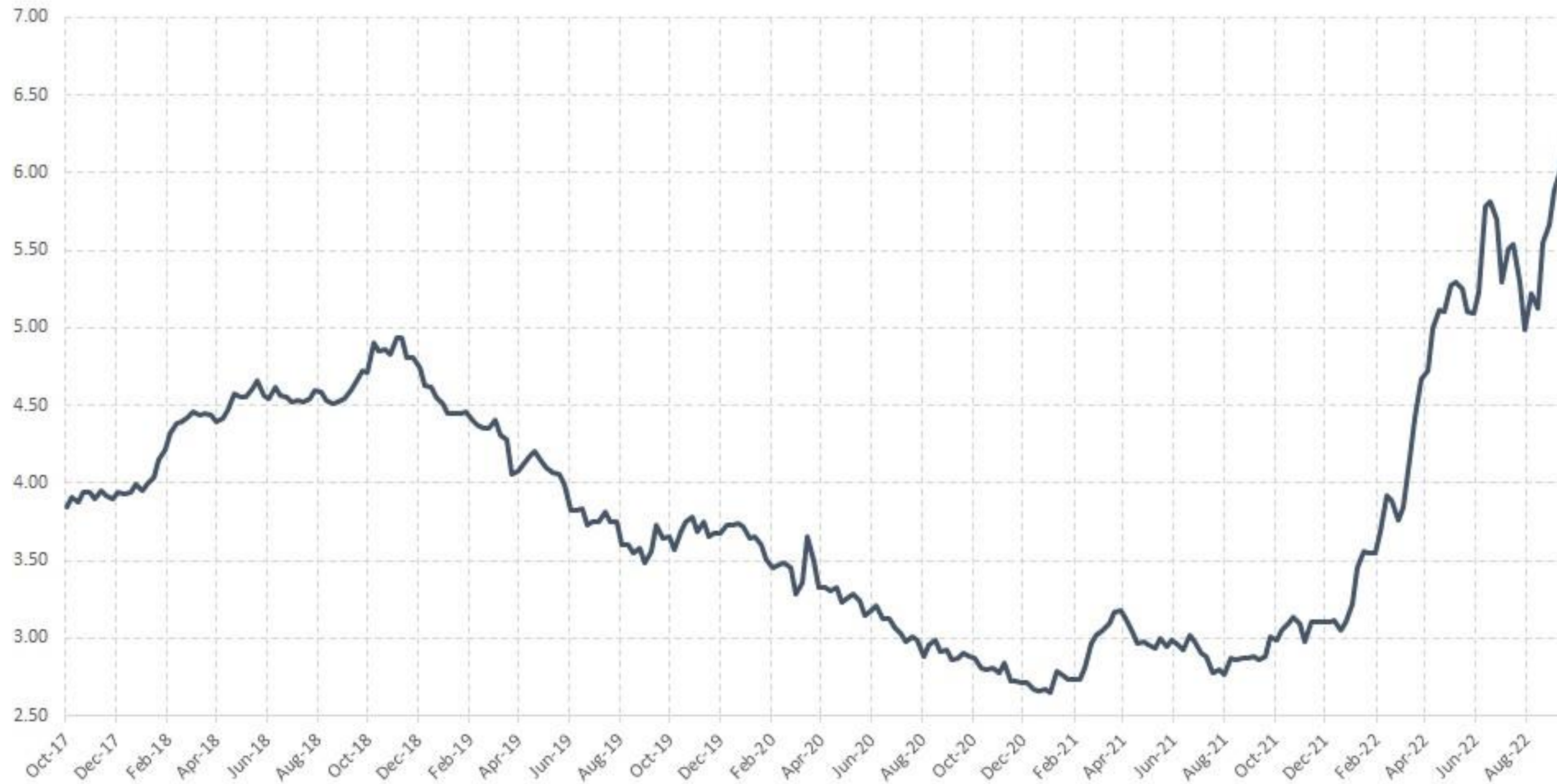
January 5th , 2022 Client Email Exchange

- Question: “What happens if rates go up 100 or 200 bps. Based on history, at what % level does this become problematic?”
- Answer: “As far as what becomes problematic, I would say a sustained increase in 30-year mortgage rates of even just 50 bps would be meaningful based on history. 100 bps would be very concerning. 200 bps would lead to a housing and then economic recession.”



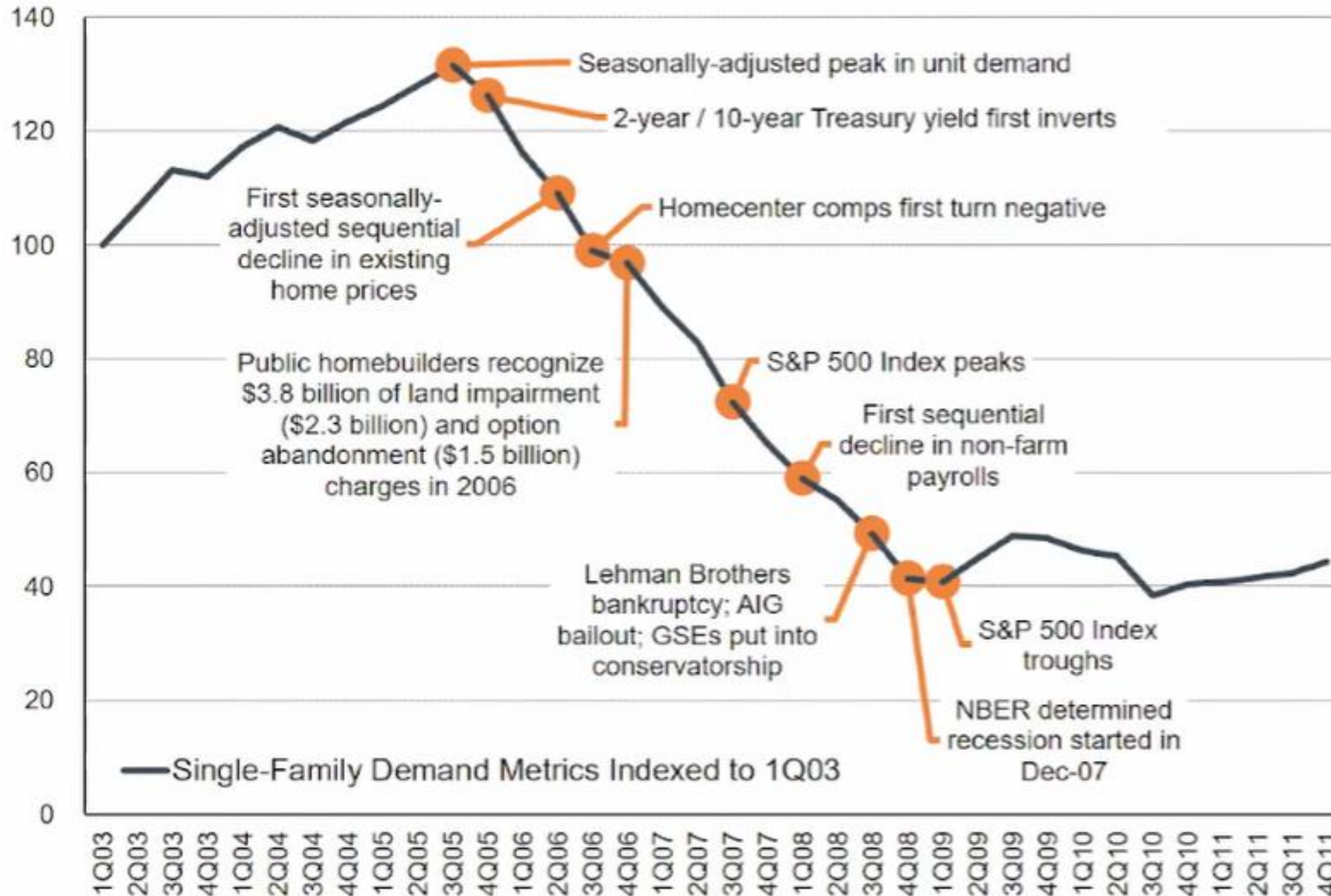
Freddie Mac reported 30-year fixed mortgage rates at 6.7%, a remarkable 0.41% increase week/week to the highest level since July 2007

30-Year Fixed Mortgage Rate

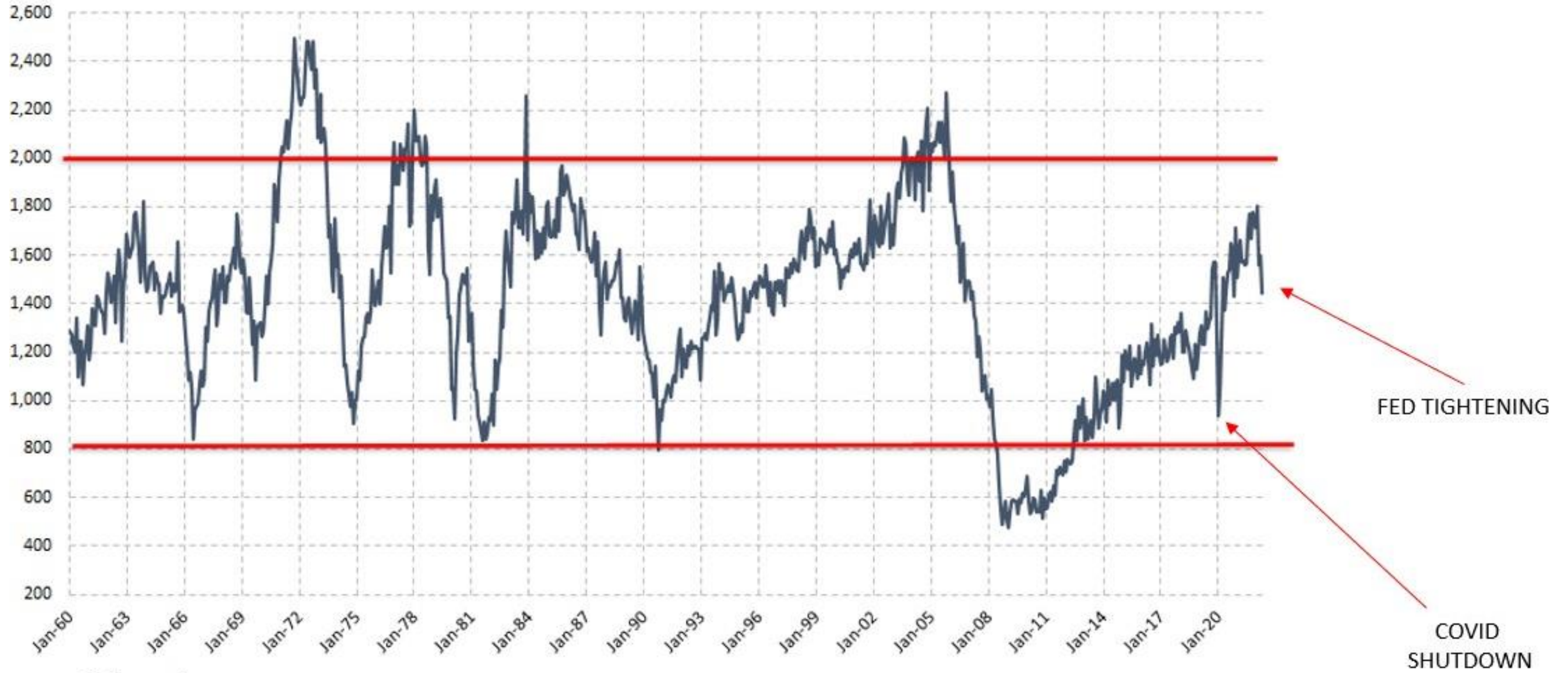


Source: Freddie Mac

A Refresher on Financial Crisis Timing

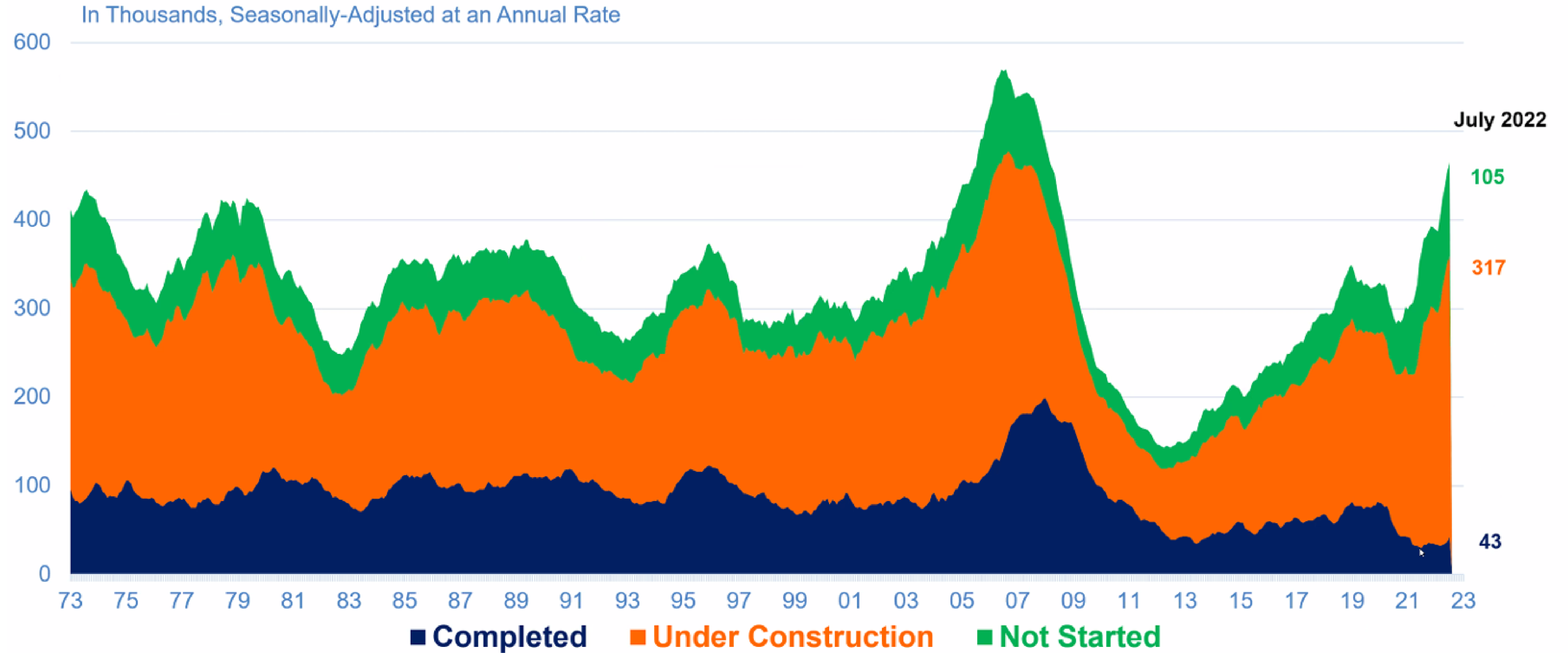


Seasonally Adjusted Housing Starts (1960-Present)

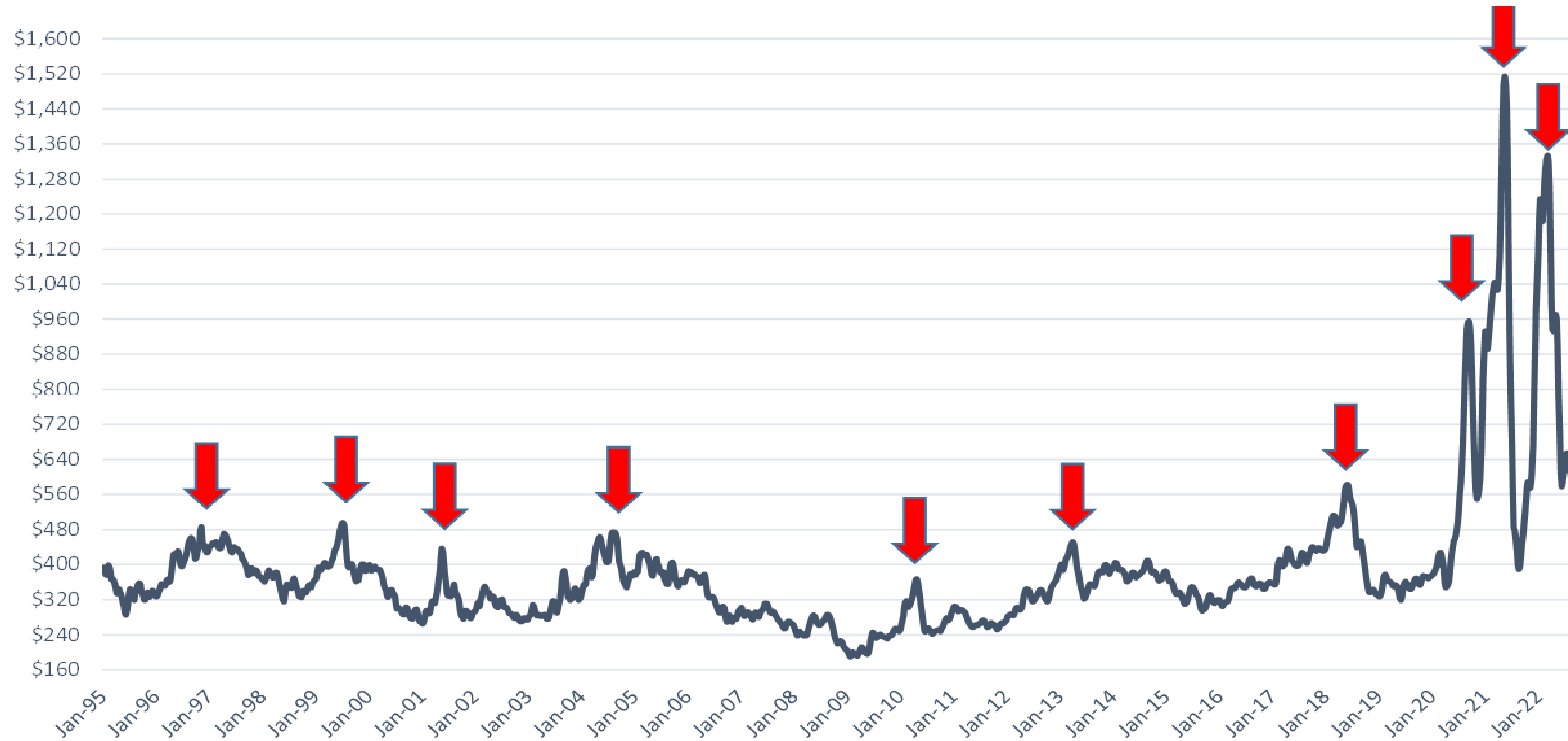


US Census Bureau

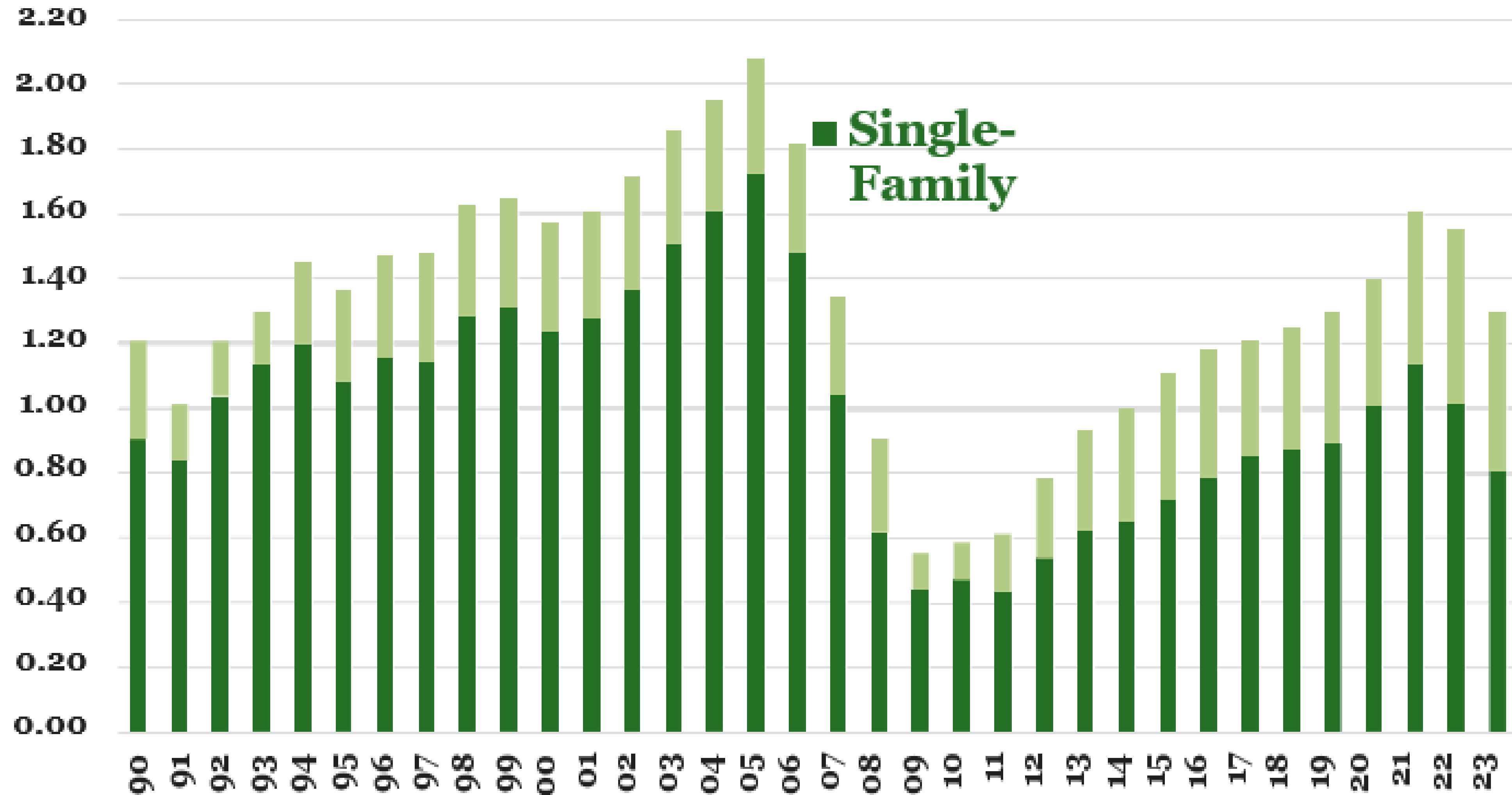
New Single-Family Homes For Sale By Stage of Construction



Historical Bear Markets: R/L Framing Composite

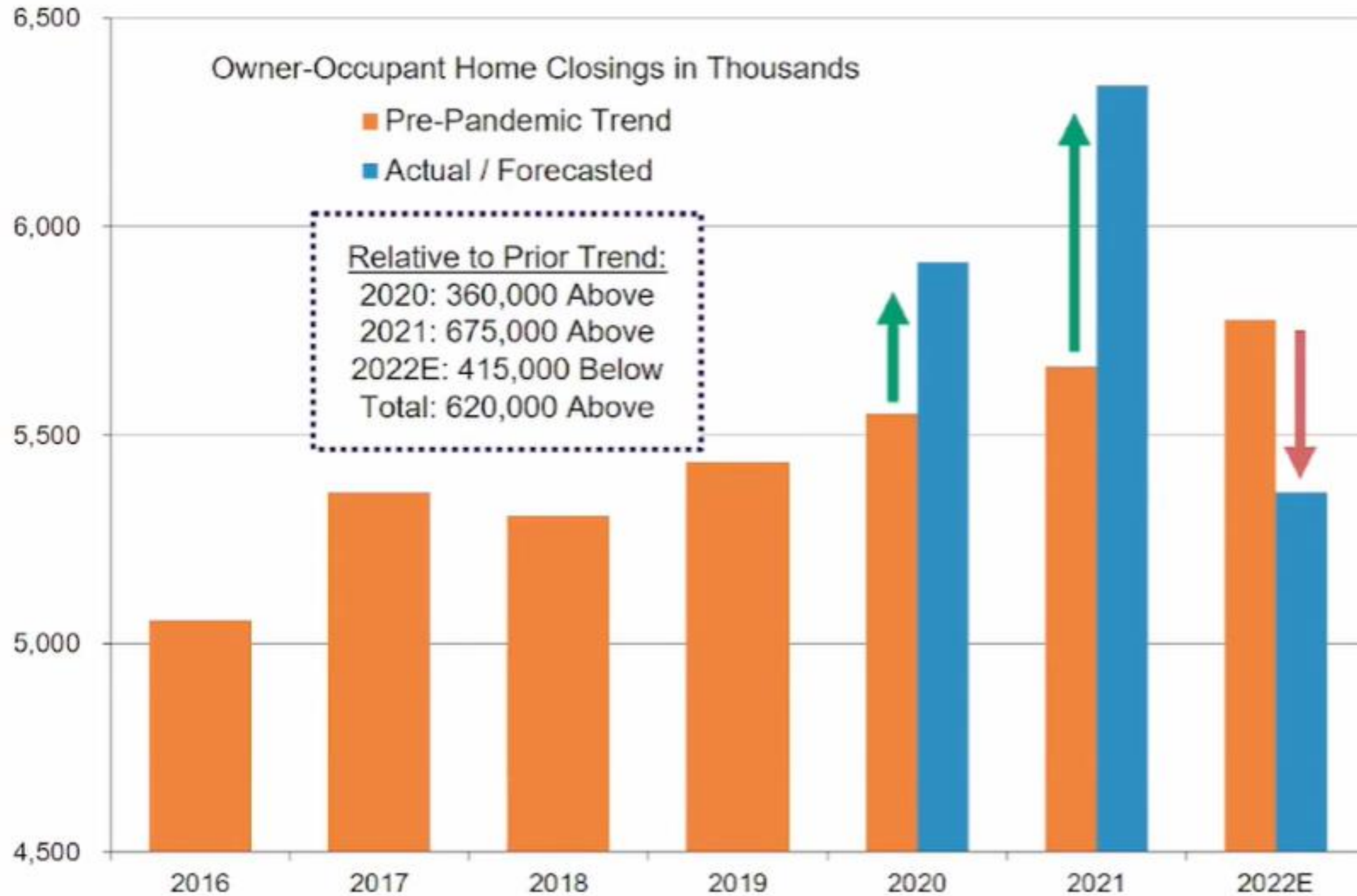


Housing Starts to Decline by 3% in 2022 and 17% in 2023



Source: Census Bureau, FEA Forecasts

Pull Forward of Demand Leaves 2023 Hangover



Why Demographics?

Ultimately about **people**

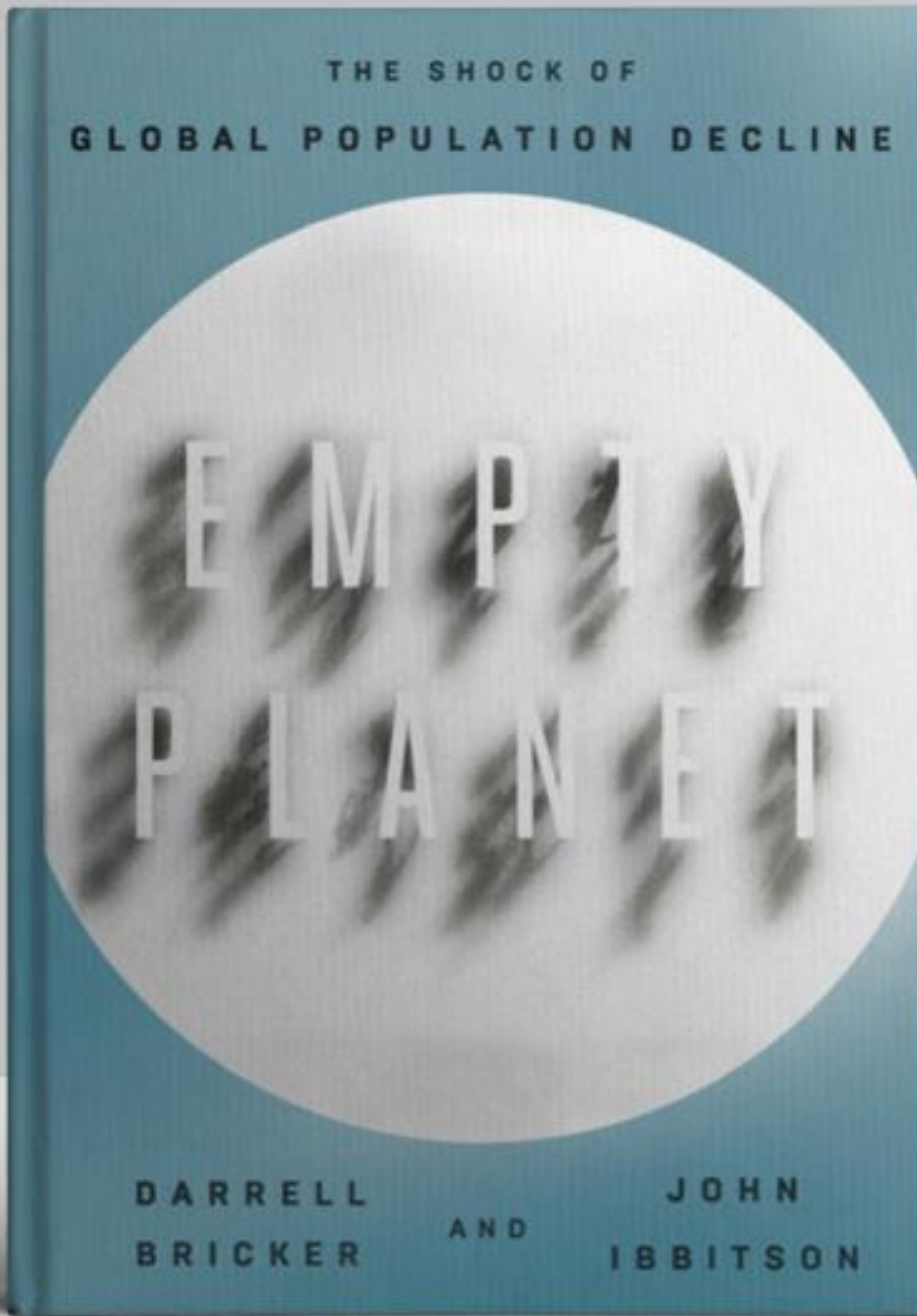
Getting better at **measuring**

Decisions **already made**

Projectable

Facts – we can disagree about speed and levels, but trends undeniable





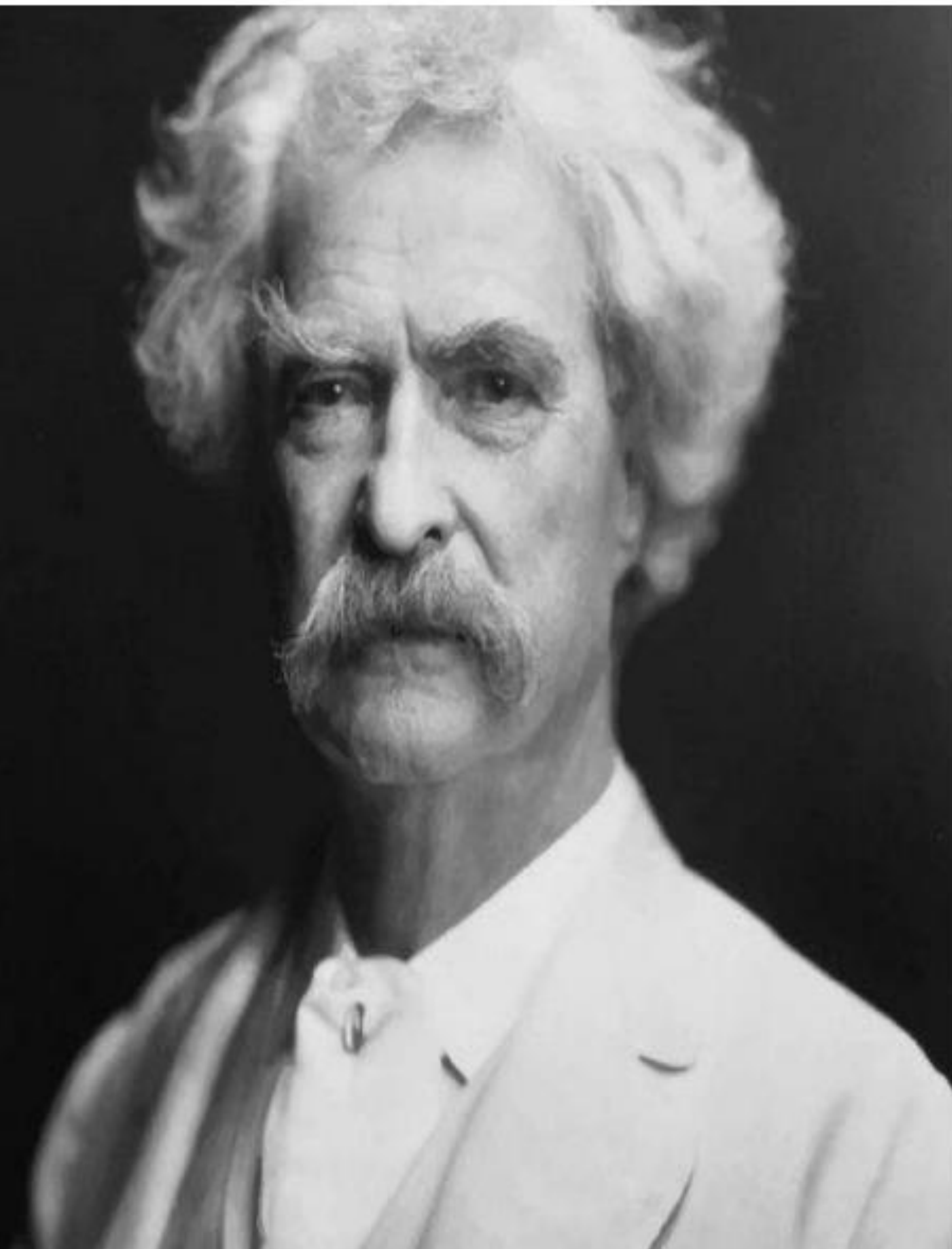
Empty Planet

Presented by
Darrell Bricker, Ph.D.



It ain't what you don't know
that gets you into trouble. It's
what you know for sure that
just ain't so.

Mark Twain



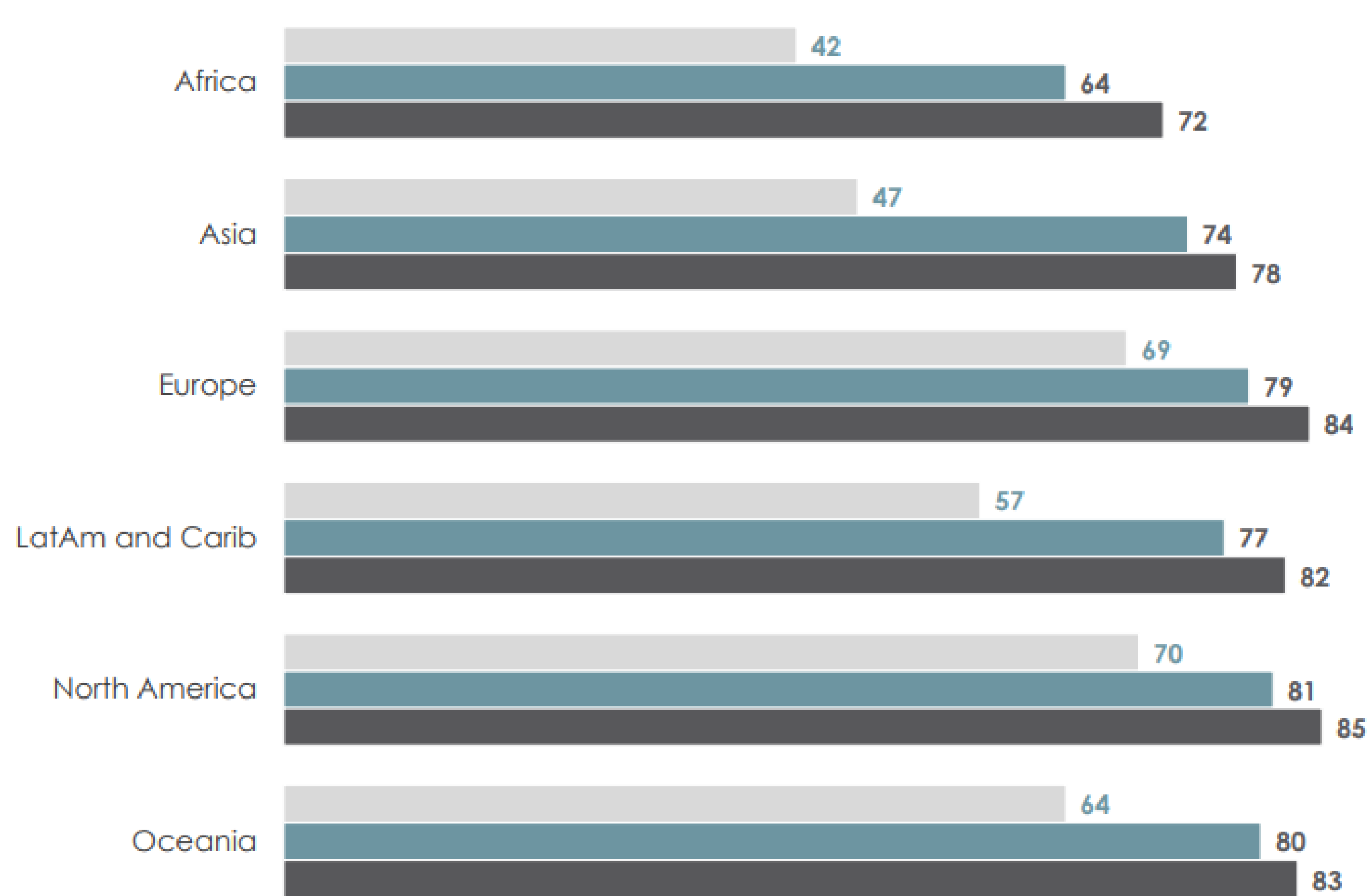


FERTILITY

MAGIC NUMBER = 2.1

LOWEST FERTILITY RATE IN US HISTORY = 1.6

Life Expectancy Increasing Everywhere...



51 Avg. 1960

73 Avg. Today

77 Avg. 2050

Top 10 Countries by Population

2017

China	1.40B
India	1.38B
U.S.	325M
Indonesia	258M
Pakistan	214M
Brazil	212M
Nigeria	206M
Bangladesh	157M
Russia	146M
Japan	128M

2100

India	1.09B	↓ 290M
Nigeria	791M	↑ 585M
China	732M	↓ 668M
USA	336M	↑ 11M
Pakistan	248M	↑ 34M
DR Congo	246M	↑ 165M
Indonesia	229M	↓ 29M
Ethiopia	223M	↑ 120M
Egypt	119M	↑ 103M
Tanzania	186M	↑ 132M

2021 Cradle to Grave Report Raised Many Eyebrows

“Population growth – the crucial underpinning of incremental housing demand – is on a troubling trajectory. While developers should be concerned, the widely-held perception that housing is drastically undersupplied has instead encouraged accelerated investments. Unfortunately, we find these optimistic supply arguments to be misplaced, anchored in history that has become increasingly irrelevant. We are concerned that housing demand and supply are set on diverging courses.” The period for focus is 2023 to 2030, when the “Baby Boomer Generation is Retired.



Zelman 2021 Cradle to Grave Summary

1. We have a people problem
2. Housing is defenseless against slowing demographics
3. As demographics change, what type of housing is needed
4. Current pace of housing production may already surpass demographics supported.
 - Normalized demand, 20%-25% for single family and 10%-15% for multifamily.

New Circumstances since then

1. Significant inflation
2. Fed poised for interest rate hikes
3. Supply chain disruption
4. Energy costs at historic levels

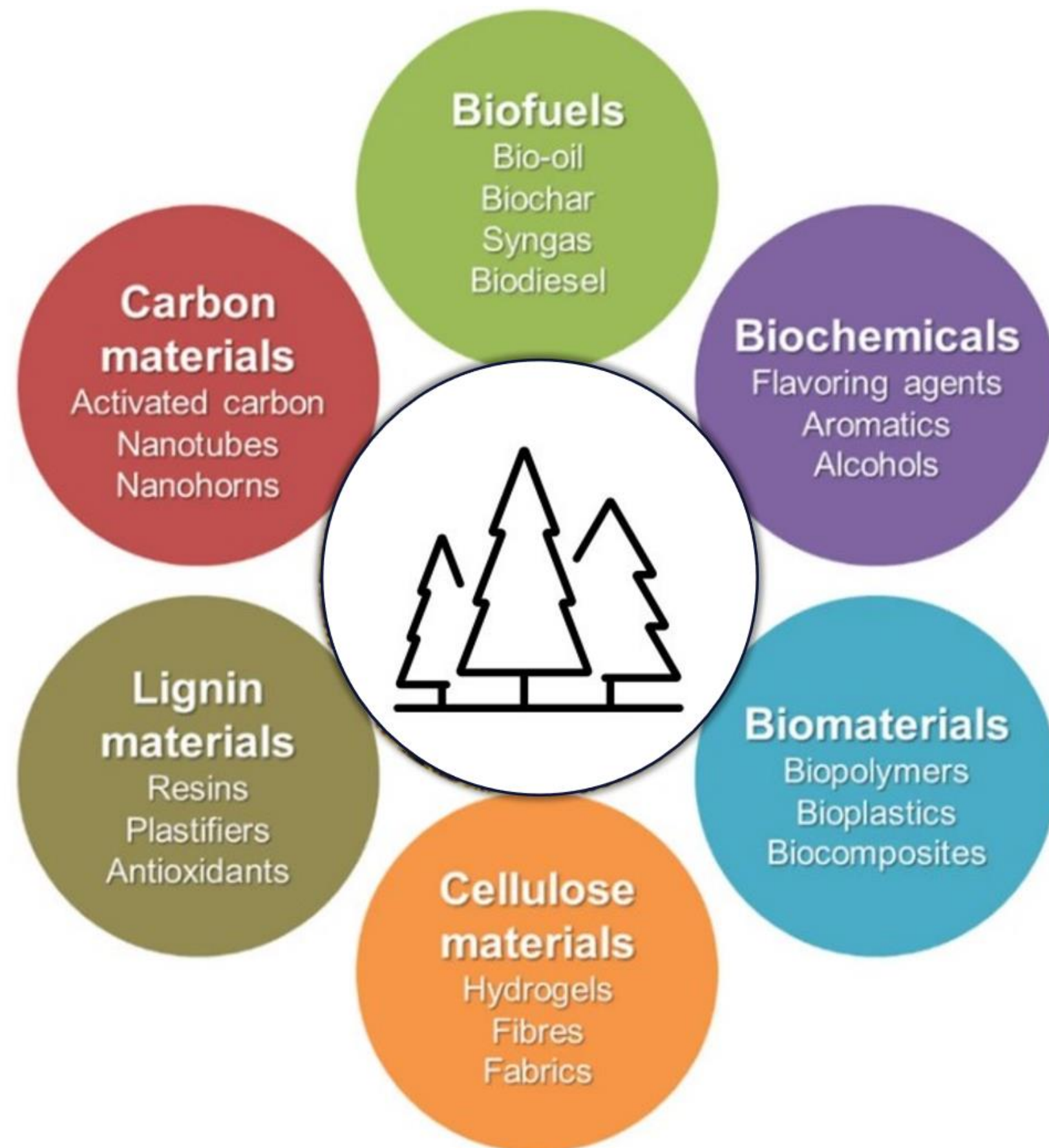
Summary

- The housing market and economy have always been heavily intertwined
- Excluding 2020, residential investment has declined ahead of each of the last six recessions
- The Fed's fight against inflation and desire to avoid prior mistakes bring about drastic housing challenges
- All indications are that housing is undergoing a multi-year downturn



SIGNIFICANT OPPORTUNITY IN FIBER

Advanced and Sustainable



USDA U.S. DEPARTMENT OF AGRICULTURE

PARTNERSHIPS FOR **CLIMATE-SMART** COMMODITIES

BY THE NUMBERS

The U.S. Department of Agriculture is investing up to **\$2.8 billion** in **70 selected** projects under the first funding pool of Partnerships for Climate-Smart Commodities.

PROJECTS BY COMMODITY

15	13	05	04
FRUIT, VEGETABLES, & SPECIALTY CROPS	BEEF & LIVESTOCK	TIMBER & FORESTS	COTTON & PEANUTS
	09	04	04
	DAIRY	CORN & SOY	ENERGY
			SORGHUM, WHEAT, & GRAIN

PROPOSAL INVESTMENTS

Proposals for the **70** selected projects include plans to match

On average over **50%** of the federal investment with nonfederal funds.

PROJECTS BY AWARD SIZE*

25	22
\$25M-45M	\$5-20M
	09
	\$50M-65M
	14
	\$70M-95M

50+ universities, including multiple **minority-serving institutions**, engaged and helping advance projects.

50,000+ farms reached, encompassing **25M+** acres of working land engaged in climate-smart production practices.

Hundreds of expanded markets and revenue streams for producers and commodities across agriculture ranging from **traditional corn** to **specialty crops**.

More than **50 million metric tons** of carbon dioxide equivalent sequestered over the lives of the projects. This is equivalent to removing more than **10 million gasoline-powered** passenger vehicles from the road for one year.

*USDA will work with the applicant to make the award size flexible.

USDA is an equal opportunity provider, employer, and lender.

Executive Order 14081 of September 12, 2022

Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy, seeks economic mechanisms for bio-based solutions and goods relative to Federal procurement.

- Purpose: inject \$2 billion into the US bioeconomy: Foundational R&D investment in bioengineering and biomanufacturing, domestic biomanufacturing capacity and prototype projects to “accelerate the translation of basic research results into practice.”
 - ✓ DoD: \$270 million for **bio-based fuels**, bio-based fire-resistant composites, polymers and resins, protective materials.
 - ✓ DoE: \$178 million for biorefineries support in research/commercialization for renewable chemicals and **fuels**
 - ✓ Department of Health: \$40 million for pharmaceutical ingredients, antibiotics, and starting materials.
 - ✓ Department of Commerce/NIST: \$14 million for new measurements and standards, data tools and protocols, “data ecosystem” for information sharing among entrepreneurs and researchers, standardized lexicon, consortia for academia, industry, and government



The graphic features a top-down view of a four-engine jet airplane flying over a runway. In the top left corner, there is a logo for 'Sustainable Aviation Fuel Grand Challenge' with a green leaf and sun icon. The main title 'SAF Grand Challenge Roadmap' is written in large white letters on a dark blue background. Below the title, the subtitle 'Flight Plan for Sustainable Aviation Fuel' is displayed. At the bottom, three circular images show green crops, yellow liquid being poured, and an aircraft wing. The footer contains logos for the U.S. Department of Energy, U.S. Department of Transportation, USDA, and EPA.

Sustainable Aviation Fuel Grand Challenge

SAF Grand Challenge Roadmap

Flight Plan for Sustainable Aviation Fuel

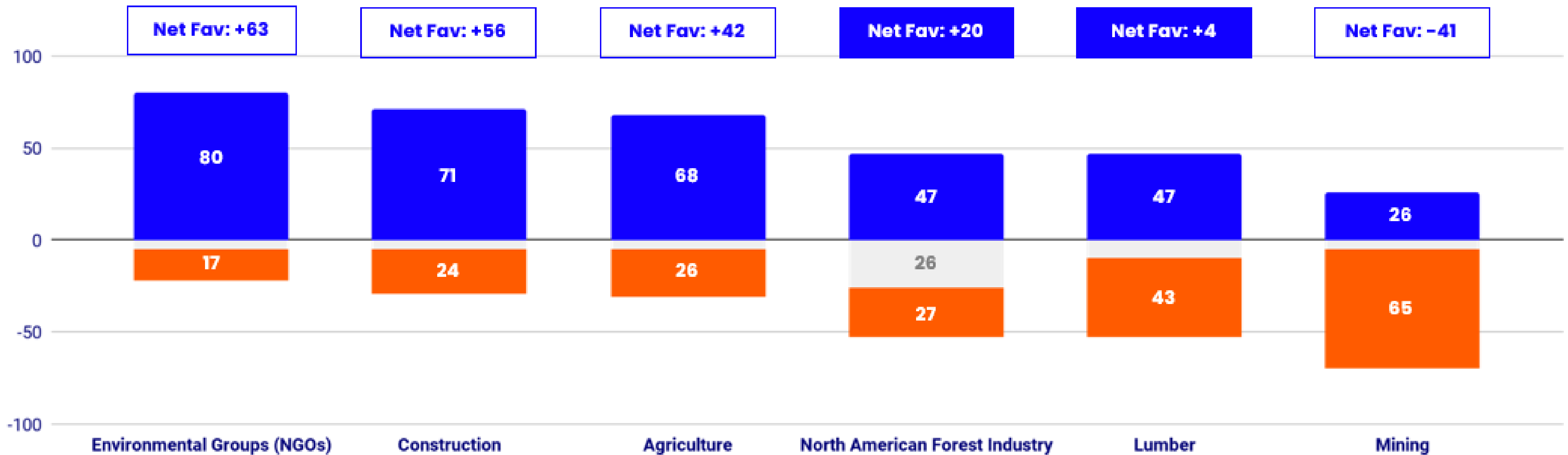


U.S. DEPARTMENT OF ENERGY | U.S. DEPARTMENT OF TRANSPORTATION | USDA | EPA

Forest industry favorability lags behind construction & agriculture

Initial Industry Favorability

Favorable Unfavorable Unable to Rate



WORKING FOREST INITIATIVE | BULLY PULPIT INTERACTIVE

Mid Term Elections-November 8, 2022

Comments, from the best thinkers in this space:

- Over-reliance on traditional “polling” remains a potential downfall of conventional thinking;
- While some pundits continue to believe that Republicans will make strong gains, this midterm is shaping up with very unique characteristics
 - Democratic House retirements, district reapportionment and a challenging national political environment is likely enough in of itself to make a Republican-controlled House likely.
 - The Dobbs Decision lingers as a major motivator for Women Voters.
 - Senate Republicans missed with candidate recruitment, particularly in NH, PA and AZ.
- 2024 Presidential Election begins the day after the election. Should the White House lose both chambers, the President’s senior staff will face enormous pressure. One should assume he is running for re-election until he isn’t. If he hangs on to at least one chamber, he will hold-off making a declarative statement as long as he can. Should Trump eventually decide not to run, one would expect the President to also serve only one term.

Sullenschuter Sawmill Warren County Missouri Circa 1900



Thank You

