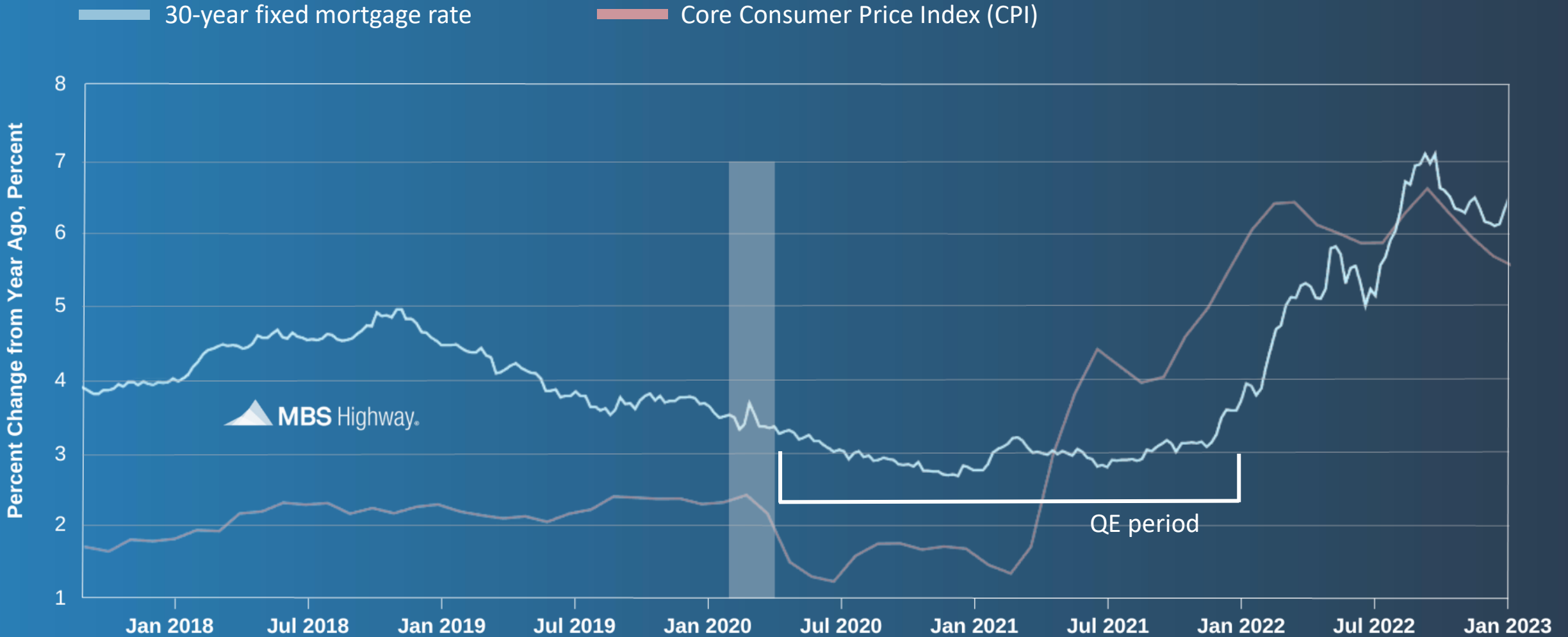


The background features a dark teal color with faint, semi-transparent images of financial data. On the right side, there is a bar chart with several vertical bars of varying heights. On the left side, there is a line graph with multiple lines showing fluctuating trends. In the lower-left area, there are several US dollar coins, including a prominent one with the word 'LIBERTY' visible. The overall aesthetic is professional and data-oriented.

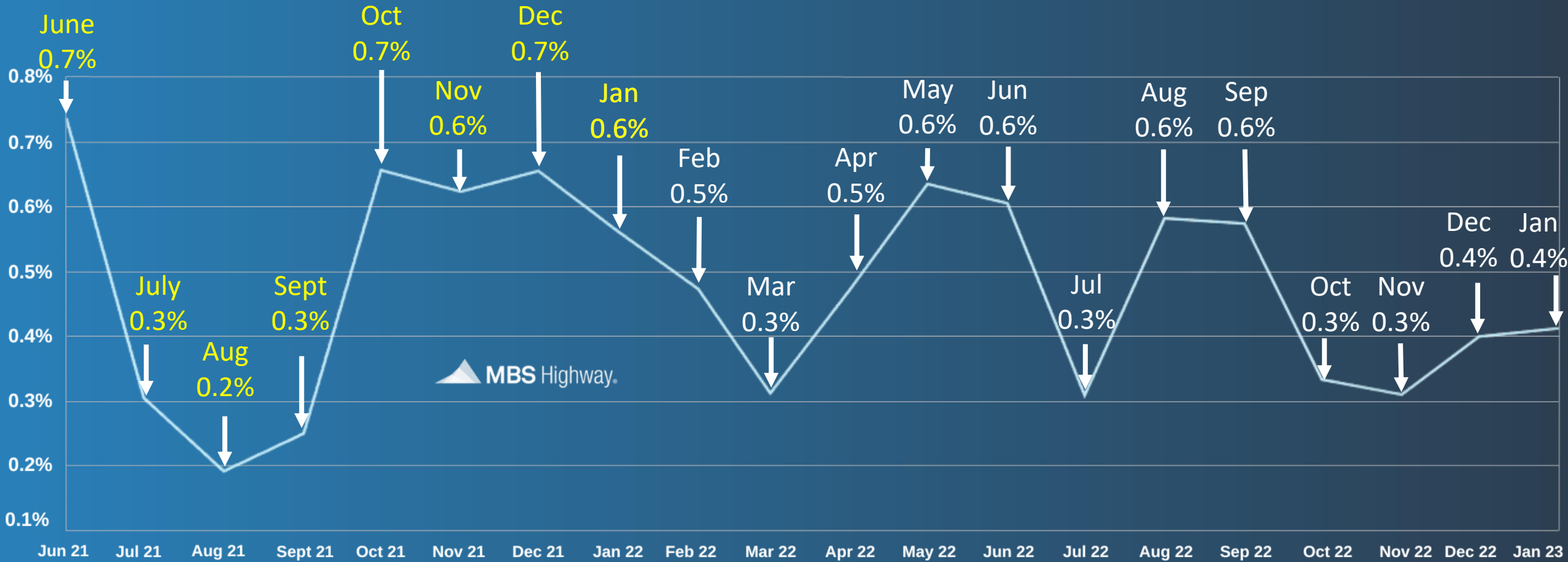
2023 RATE AND HOUSING *FORECAST*

Inflation Drives Mortgage Rates



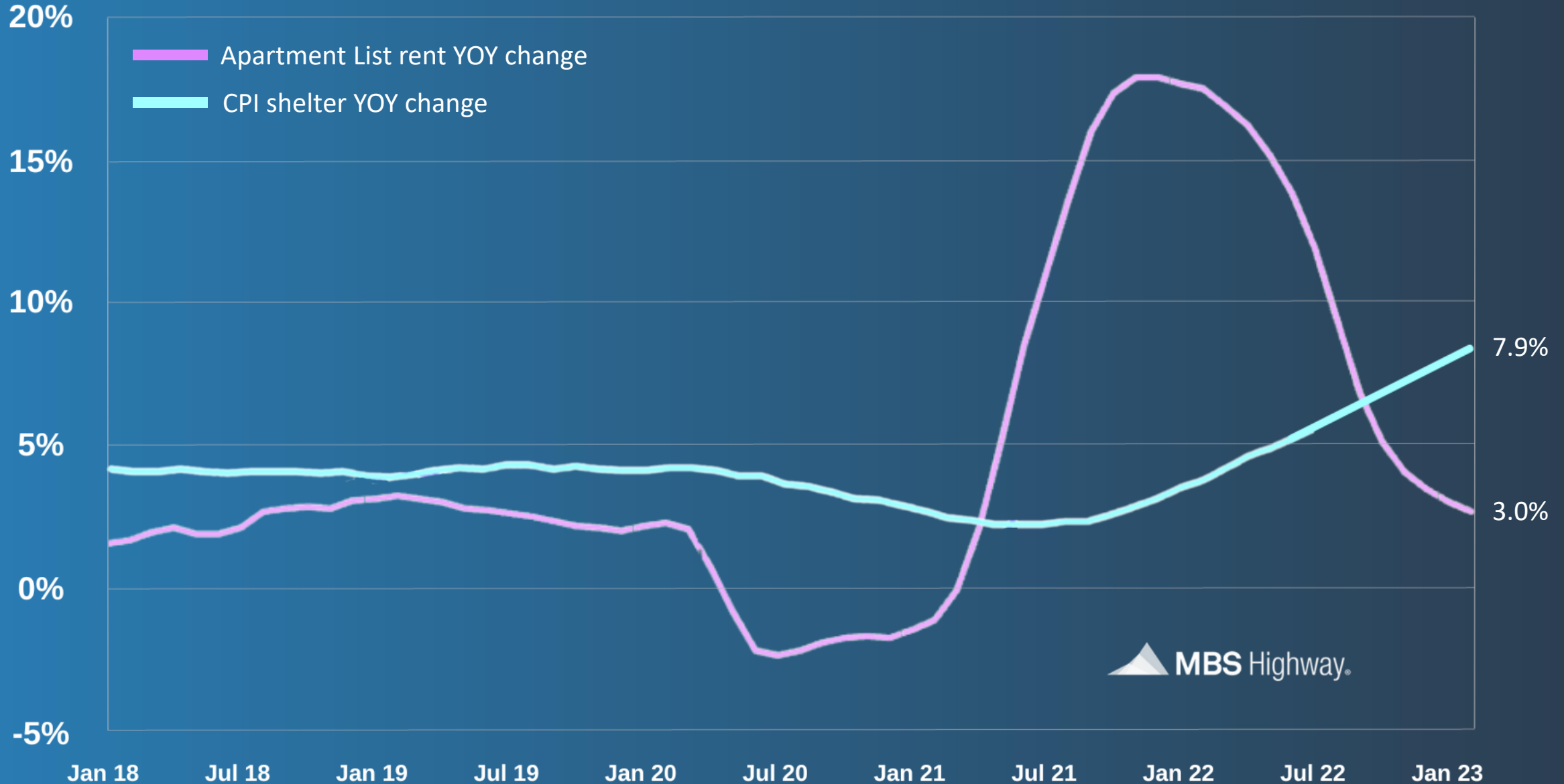
Understand Inflation

To Forecast Rates



Shelter Costs are Lagging

Shelter is 43% of Core CPI



Shelter Costs are Lagging

January



Real Shelter Costs



Shelter in CPI



All Segments Lower Except Shelter

Shelter is 39% of Core CPI

Prices have come down across the board for food, gas, clothing, etc. – all these are reflected in CPI.

But – shelter costs (39% of core CPI), although decelerating, are still showing increases in CPI due to the lag effect.

“Blowout jobs report”

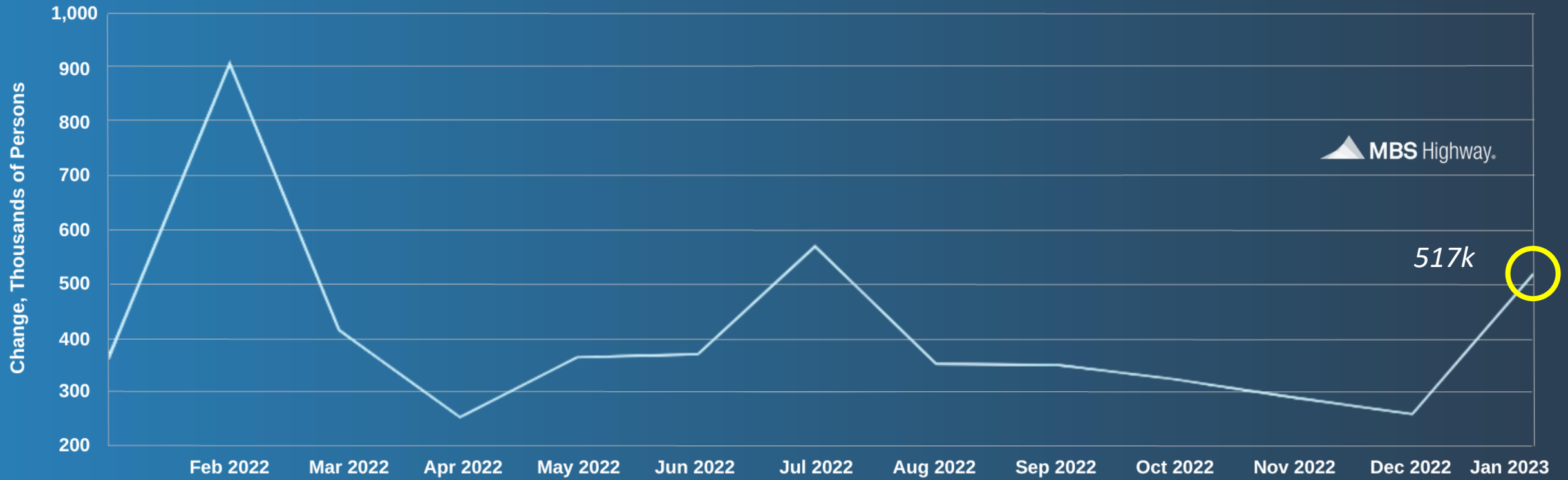
“Unemployment ticking down, not up, to a 50-year low”

**BREAKING
NEWS**

ST. LOUIS FED PRESIDENT LIVE
BULLARD ON INFLATION, JOBS, OUTLOOK

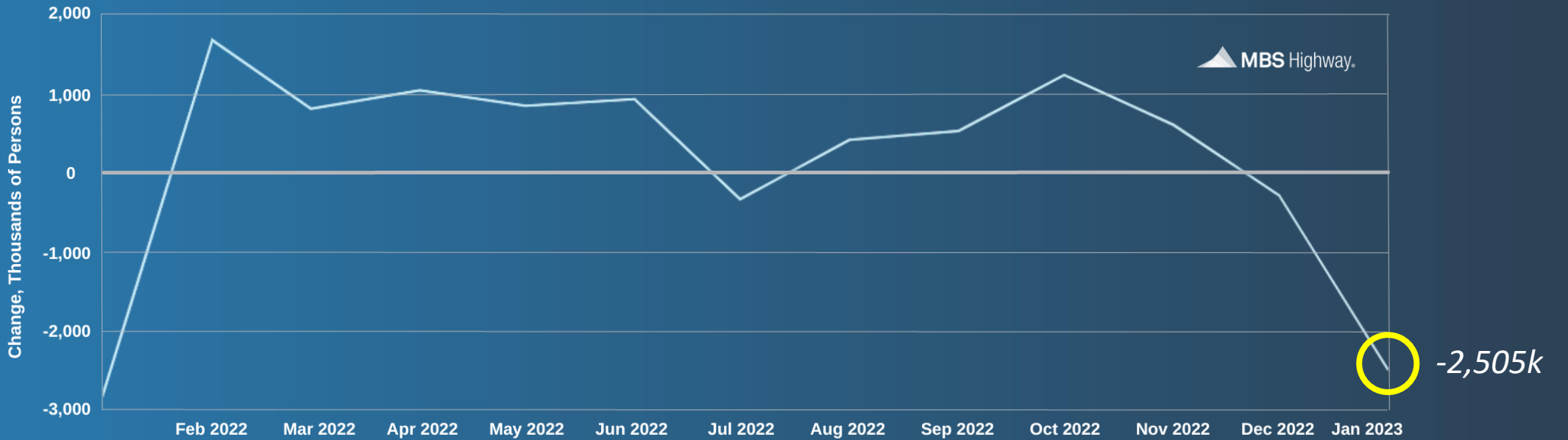


Total nonfarm payroll, seasonally adjusted
Month-over-month change in thousands



Total nonfarm payroll, non-seasonally adjusted

Month-over-month change in thousands



2023 Total nonfarm over-the-month change, not seasonally adjusted (in thousands)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total nonfarm over-the-month change	-2,505 (p)											
Footnotes												
(p) Preliminary												

Additional information on the CES birth-death model is available in the CES Technical Notes under [Business birth and death estimation](http://www.bls.gov/web/empsit/cestn.htm#section6c) (www.bls.gov/web/empsit/cestn.htm#section6c) as well as on the birth-death frequently asked questions page at www.bls.gov/web/empsit/cesbdqa.htm.

Historical birth-death forecasts are available at www.bls.gov/web/empsit/cesbdhst.htm.

An overview of the CES birth-death model, including a detailed description of the original methodology is available at www.bls.gov/opub/mlr/2006/05/art4full.pdf.

Last Modified Date: February 3, 2023

Unemployment rate (U-3)

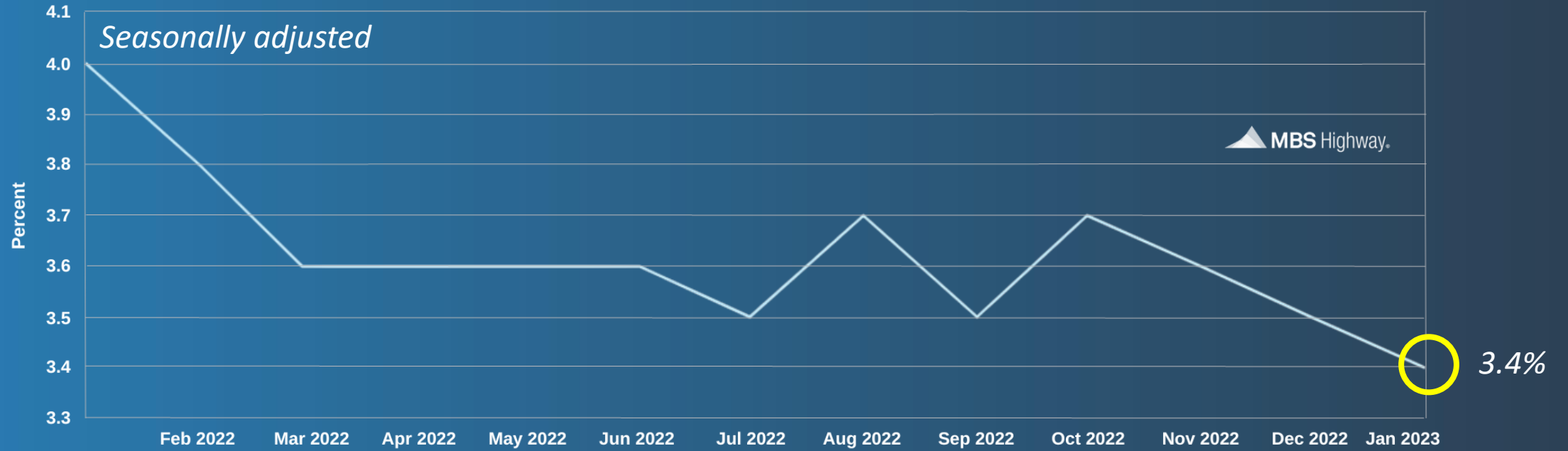


Table C. December 2022-January 2023 changes in selected labor force measures, with adjustments for population control effects

(Numbers in thousands)

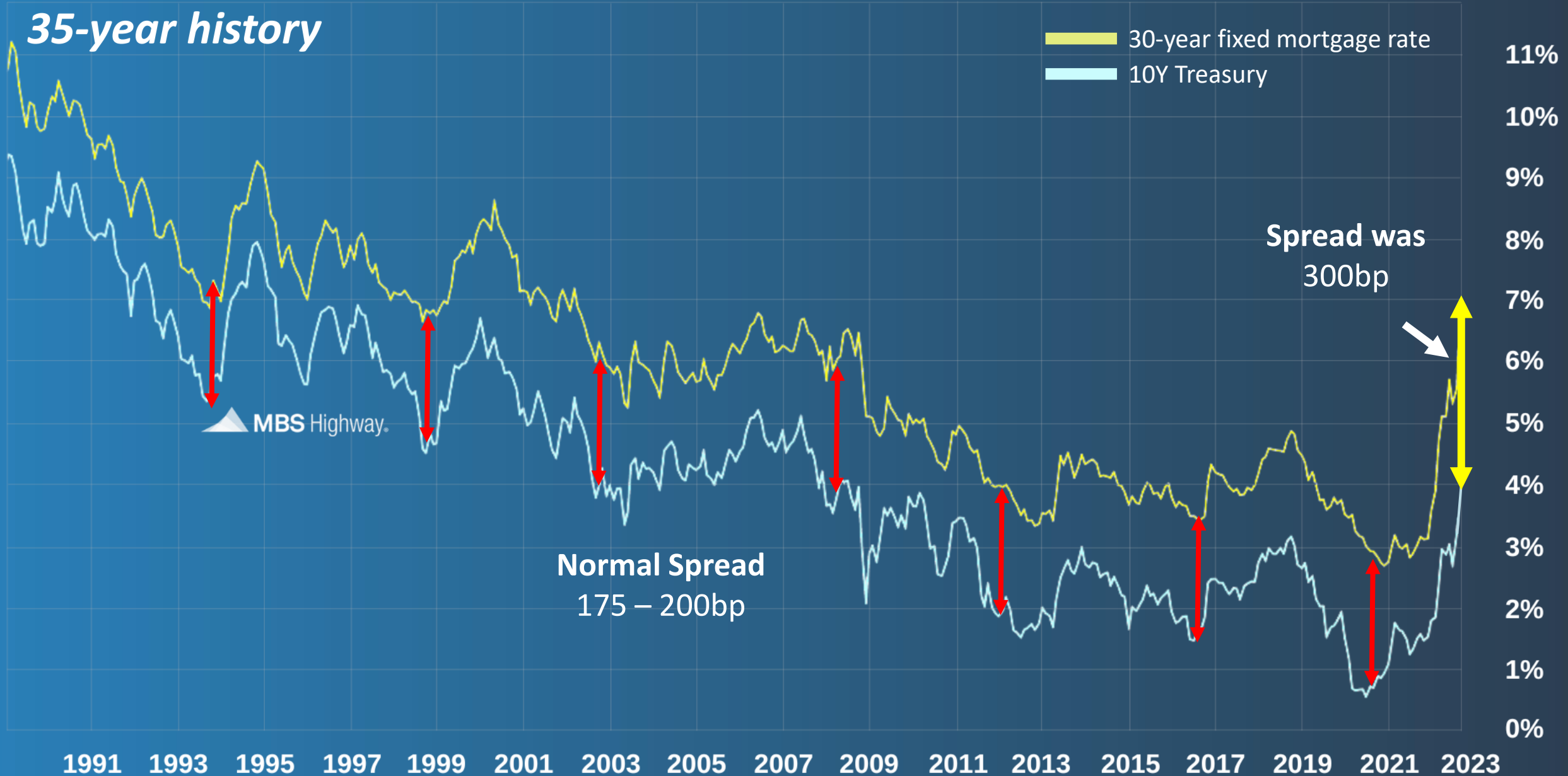
Category	Dec.-Jan. change, as published	2023 population control effect	Dec.-Jan. change, after removing the population control effect ¹
Civilian noninstitutional population.....	1,118	954	164
Civilian labor force.....	866	871	-5
Participation rate.....	0.1	0.1	0.0
Employed.....	894	810	84
Employment-population ratio.....	0.1	0.1	0.0
Unemployed.....	-28	60	-88
Unemployment rate.....	-0.1	0.0	-0.1
Not in labor force.....	252	82	170

¹ This Dec.-Jan. change is calculated by subtracting the population control effect from the over-the-month change in the published seasonally adjusted estimates.

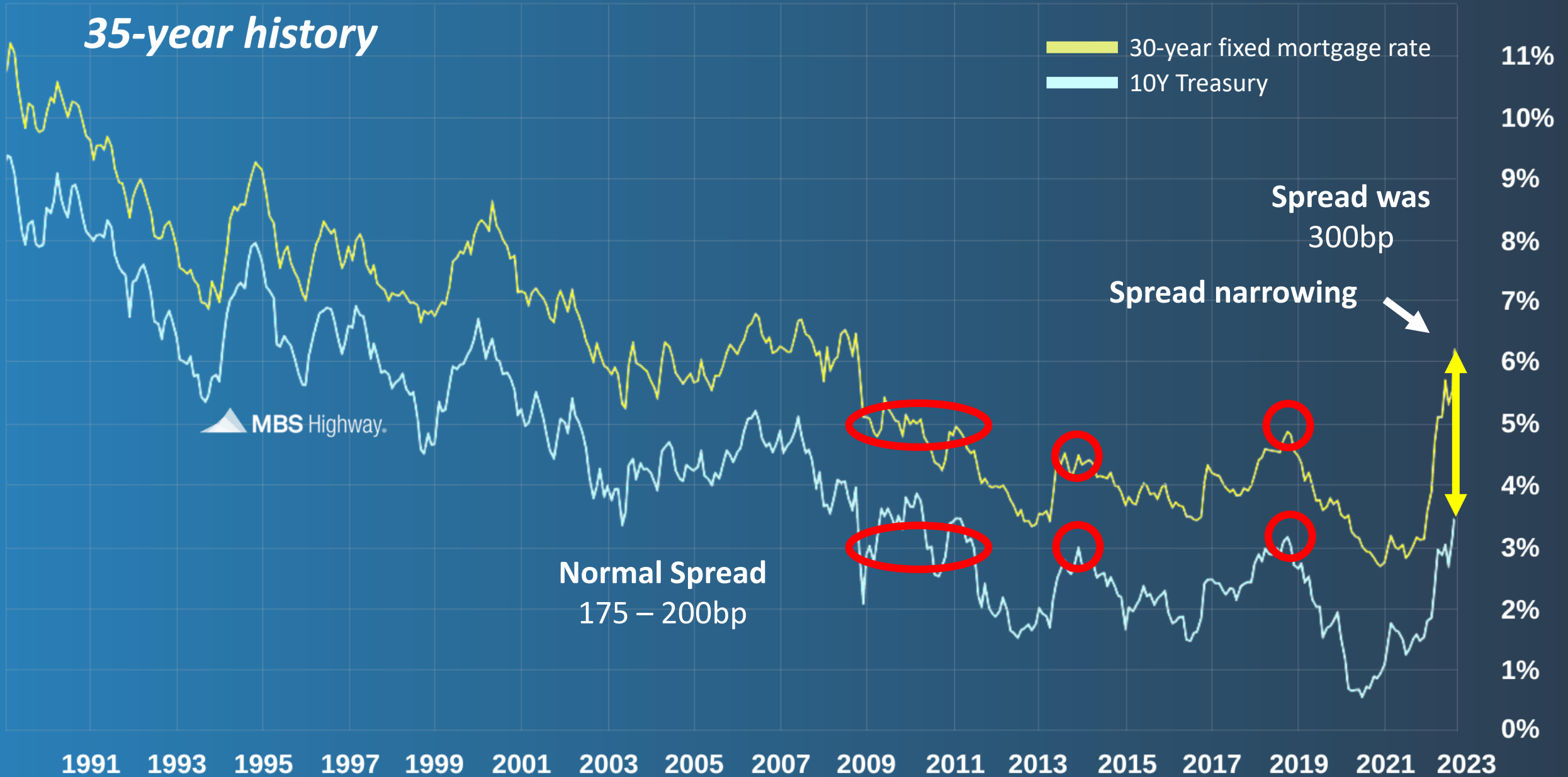
NOTE: Detail may not sum to totals because of rounding.

30yr Mortgage Rates vs 10yr Treasury Spread

35-year history

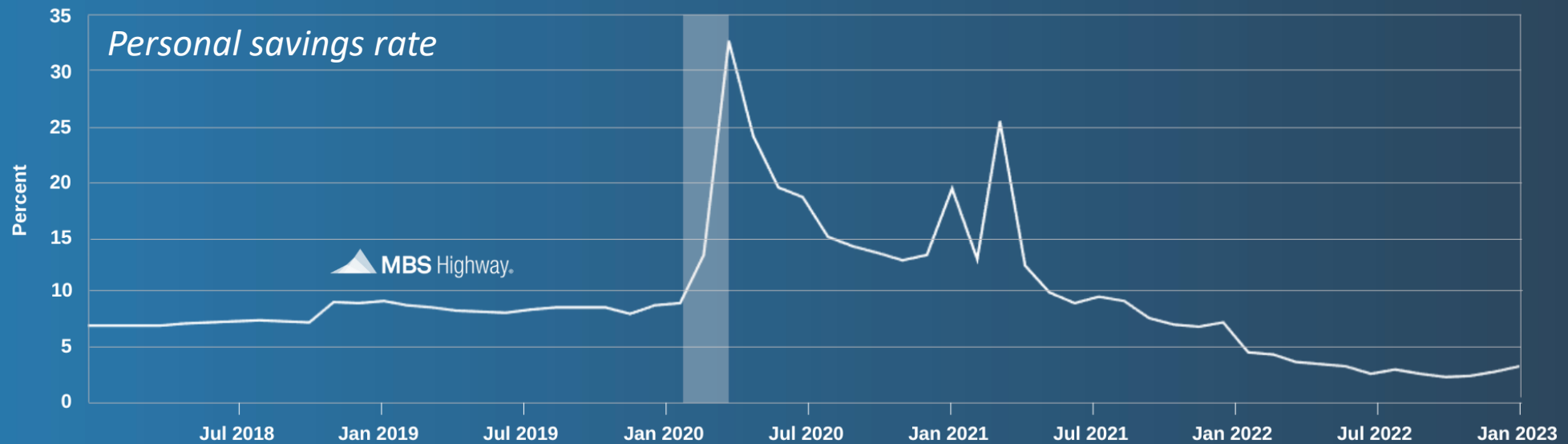
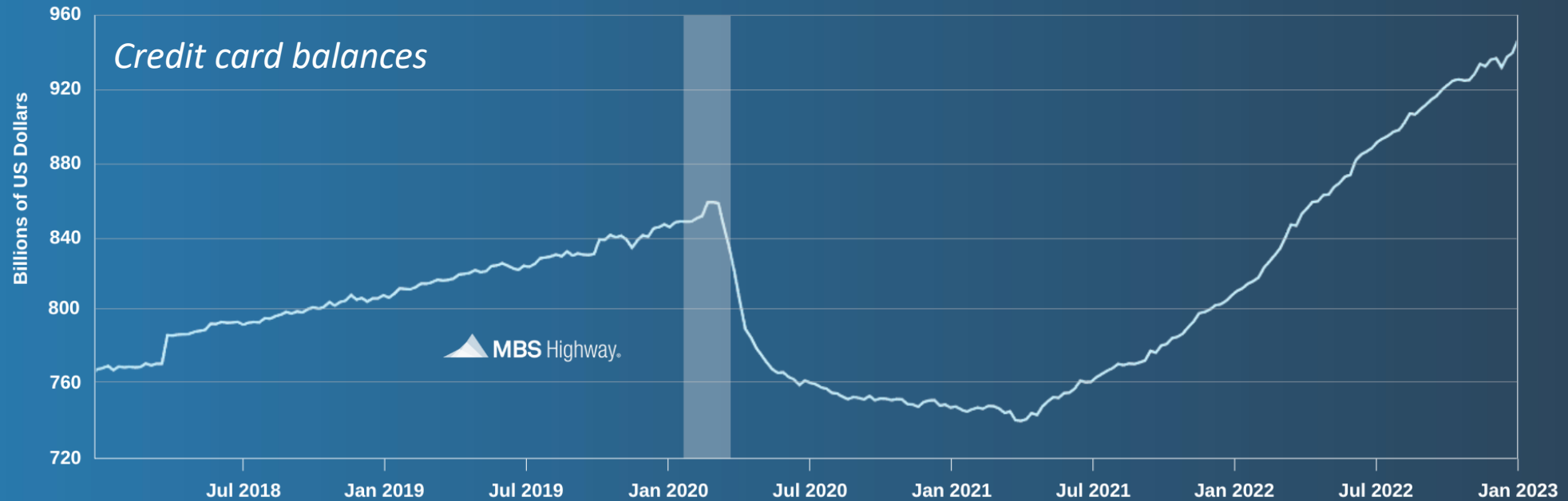


30yr Mortgage Rates vs 10yr Treasury Spread



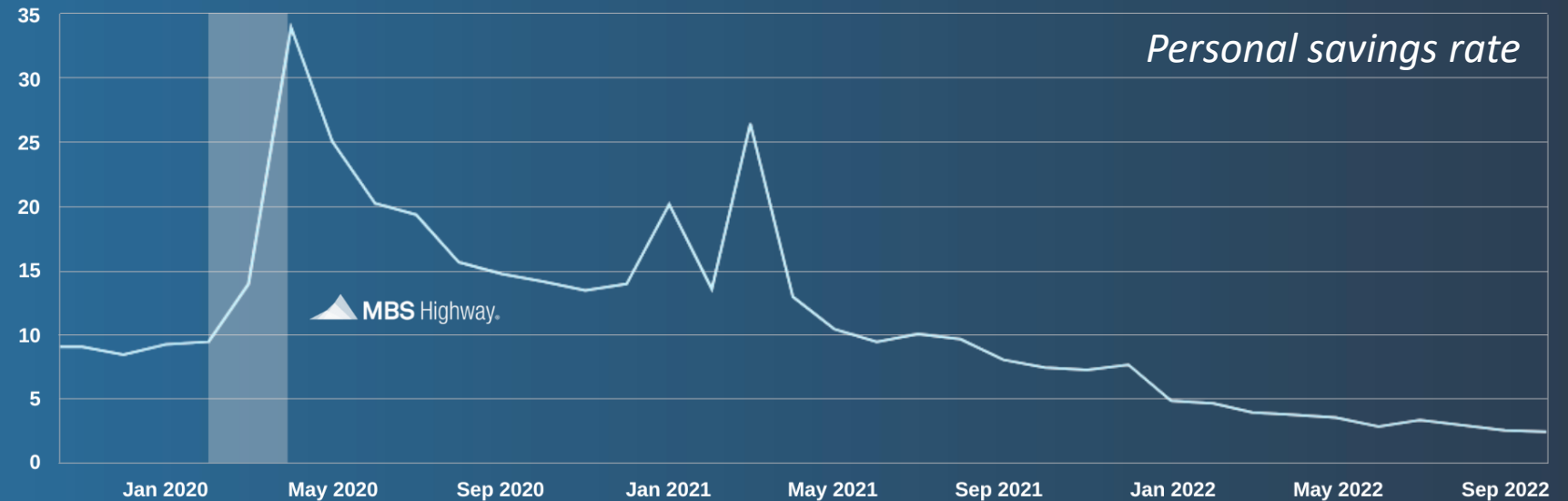
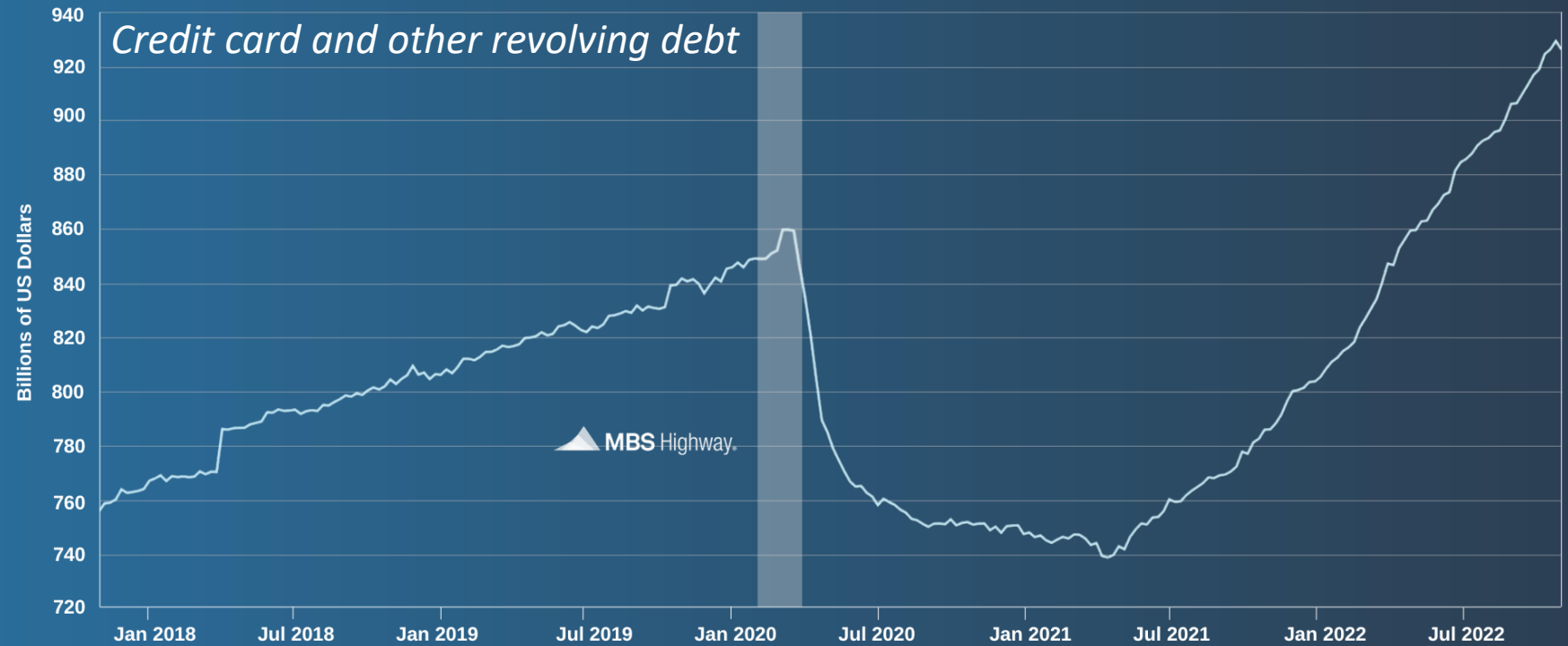
Recession Coming

Living off credit cards and savings

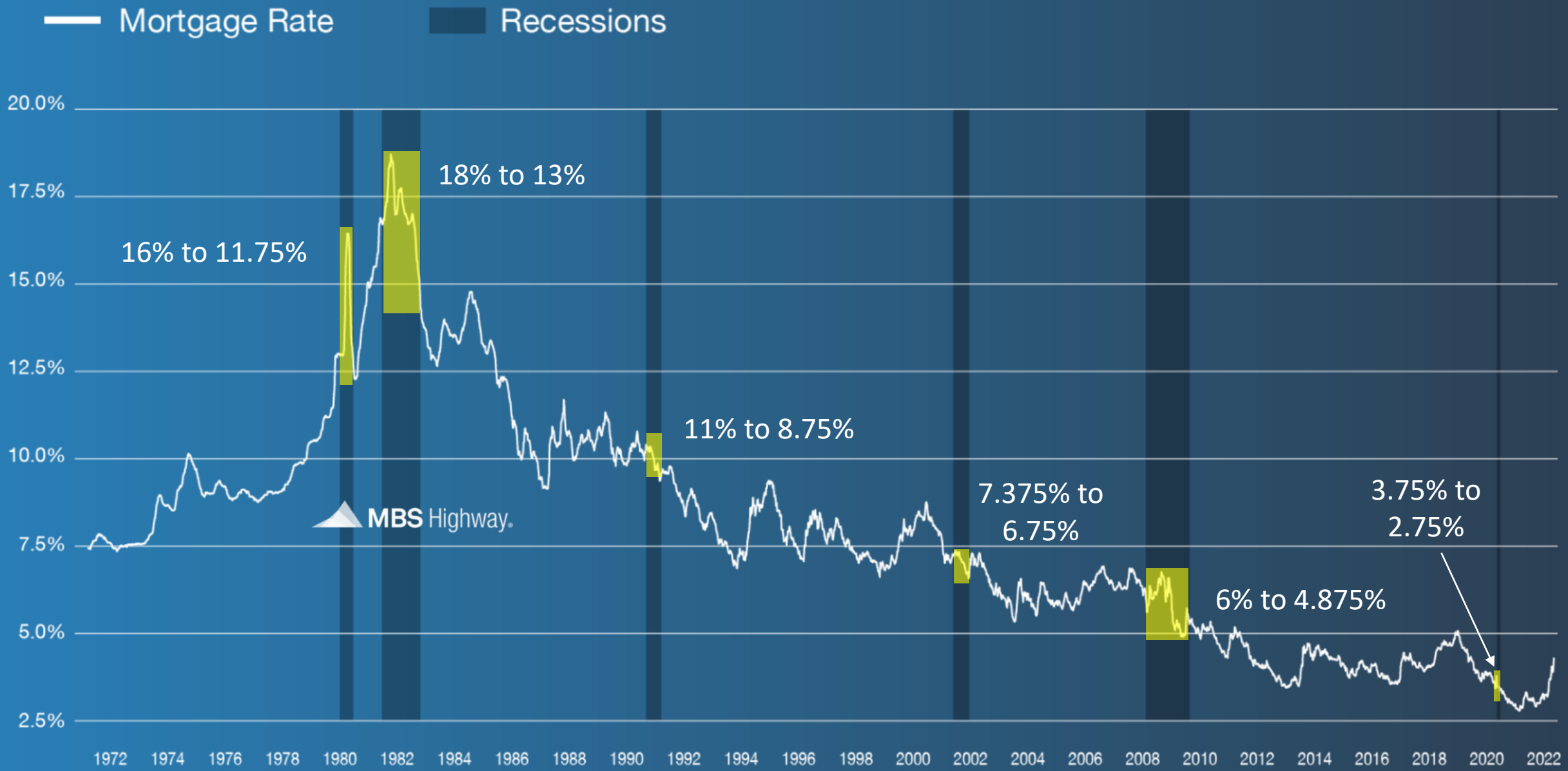


Recession Coming

Living off credit cards and savings



Mortgage Rates & Recessions

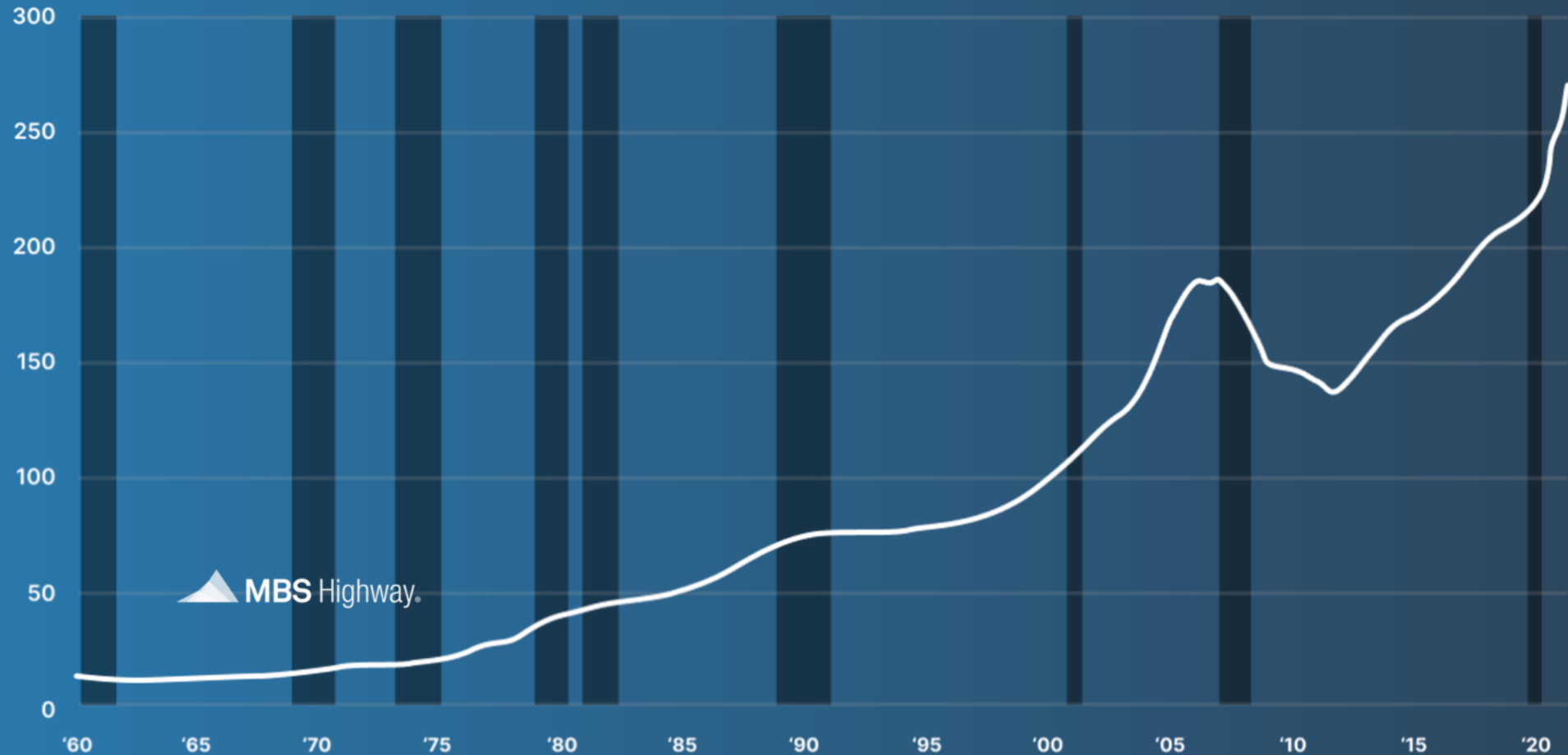


Housing Stays Strong Through Recessions

S&P Case-Shiller U.S. National House Price Index

Index

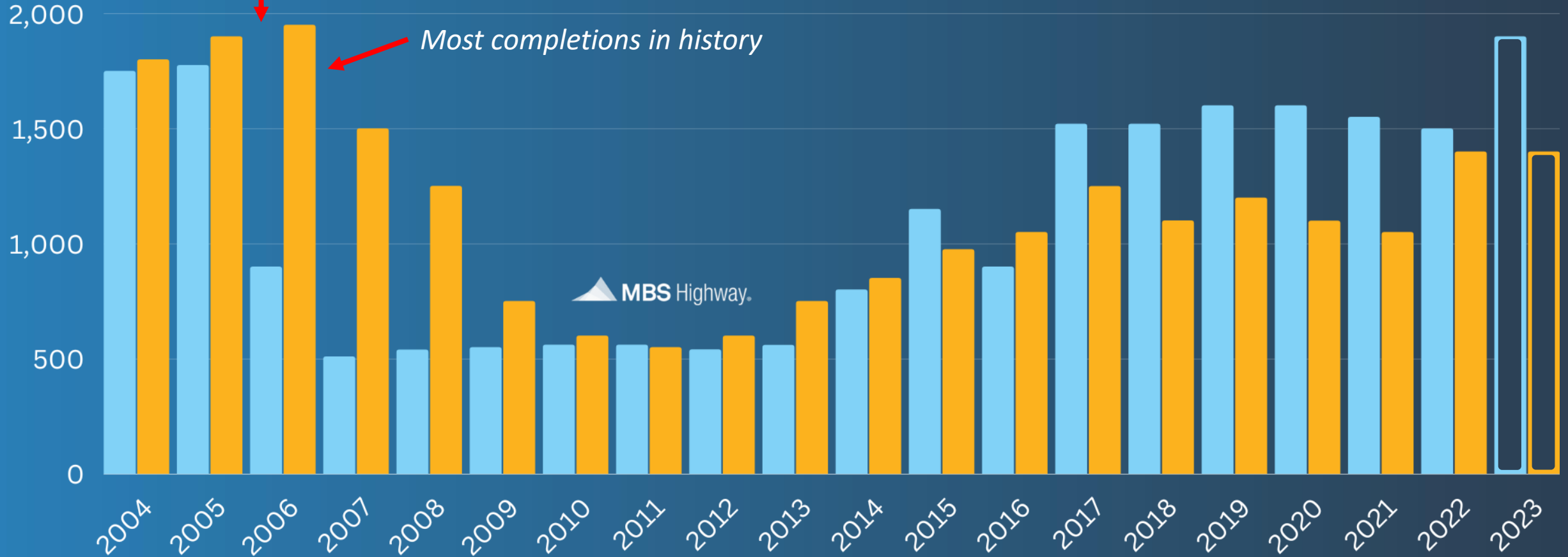
Recessions



MBS Highway

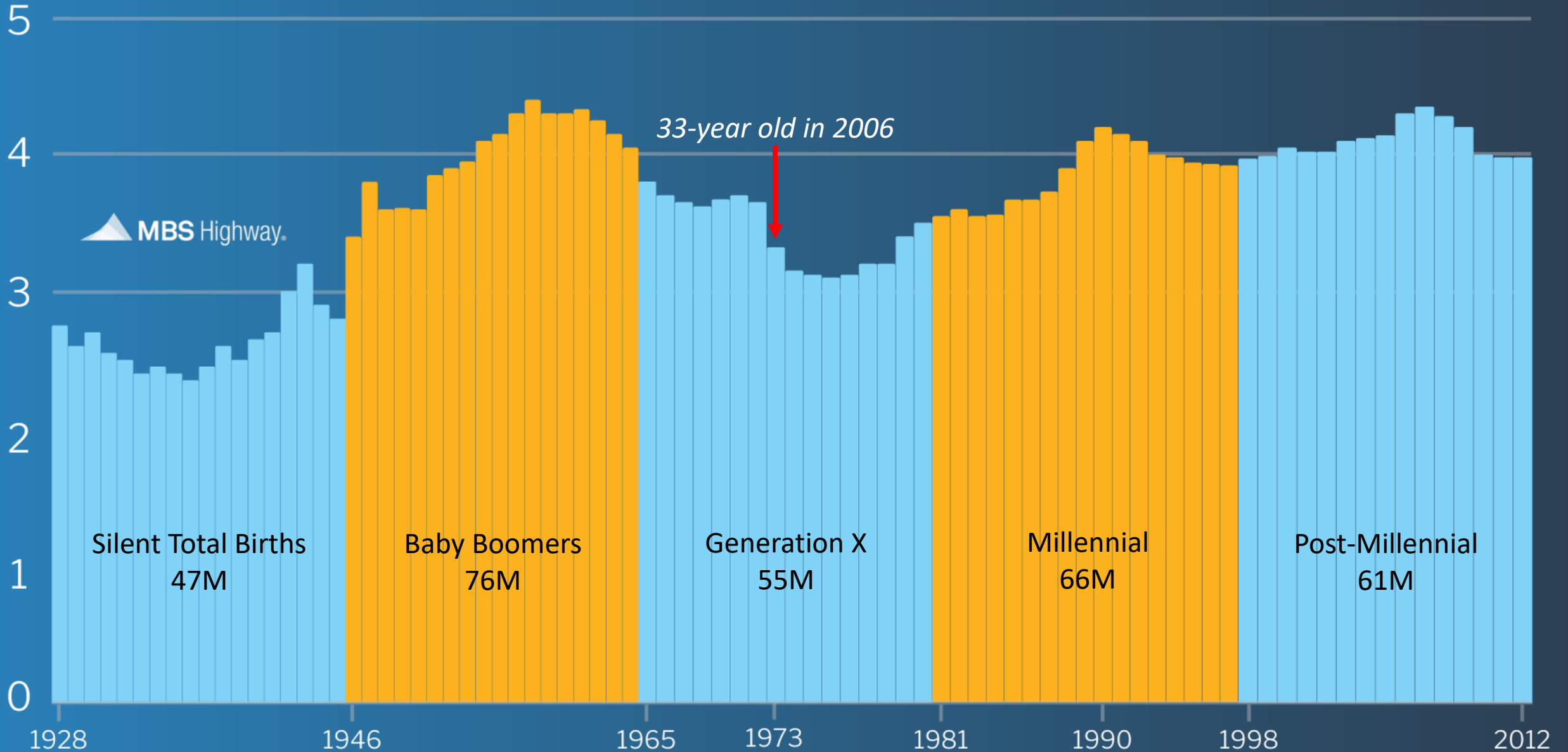
Huge drop in formations

Most completions in history



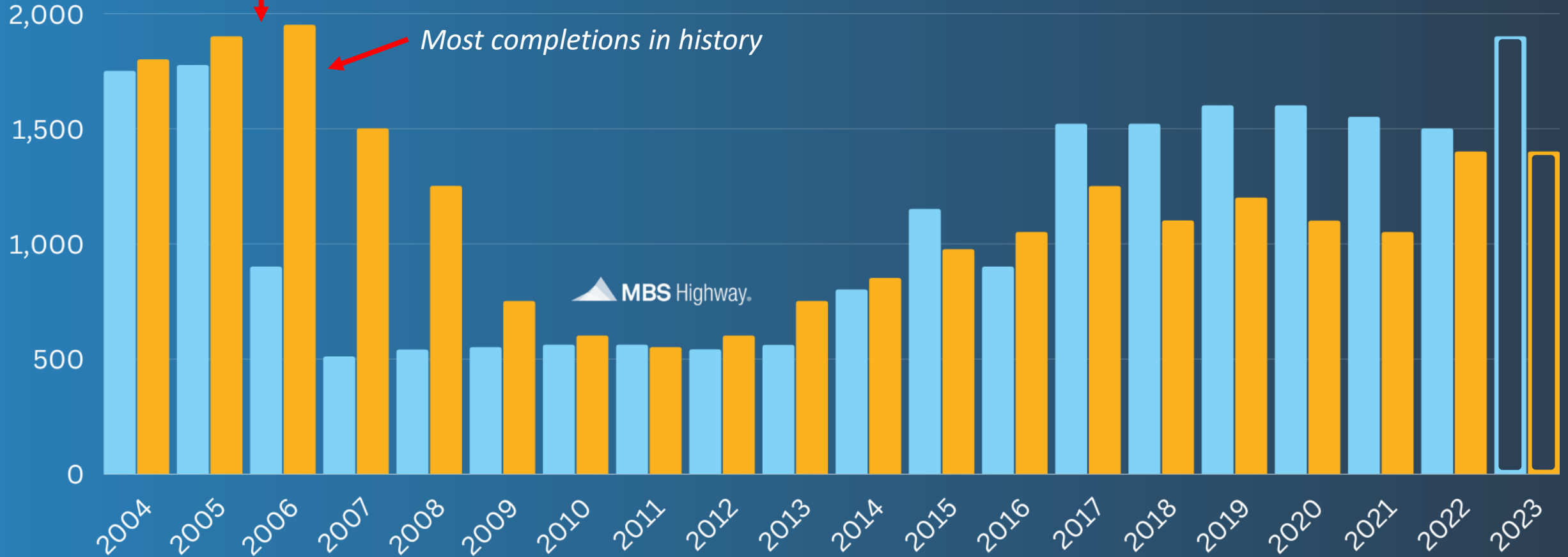
Formations Completions

US Births by Year (in Millions)



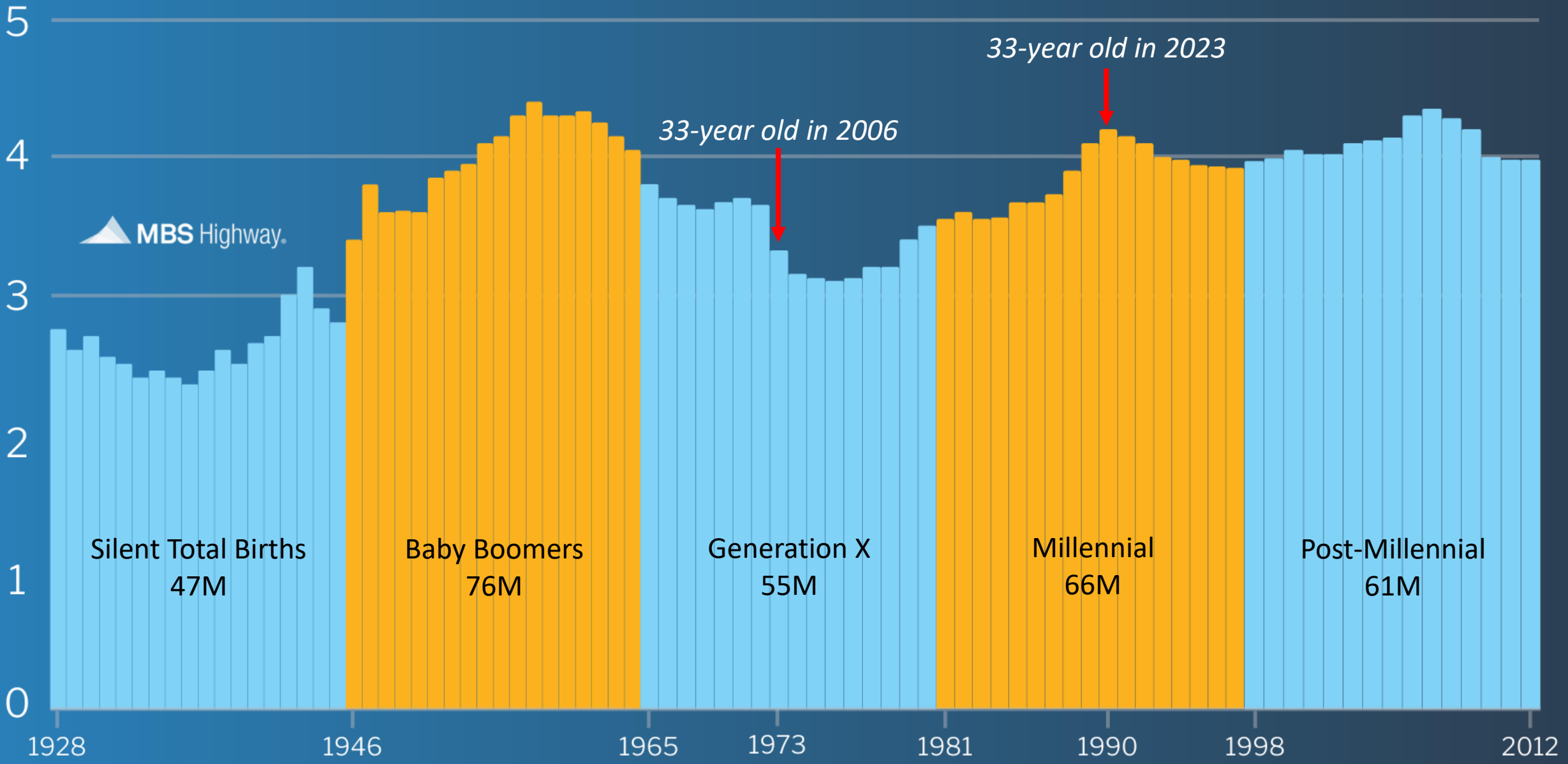
Huge drop in formations

Most completions in history



Formations Completions

US Births by Year (in Millions)



MBS Highway.

33-year old in 2023

33-year old in 2006

Silent Total Births
47M

Baby Boomers
76M

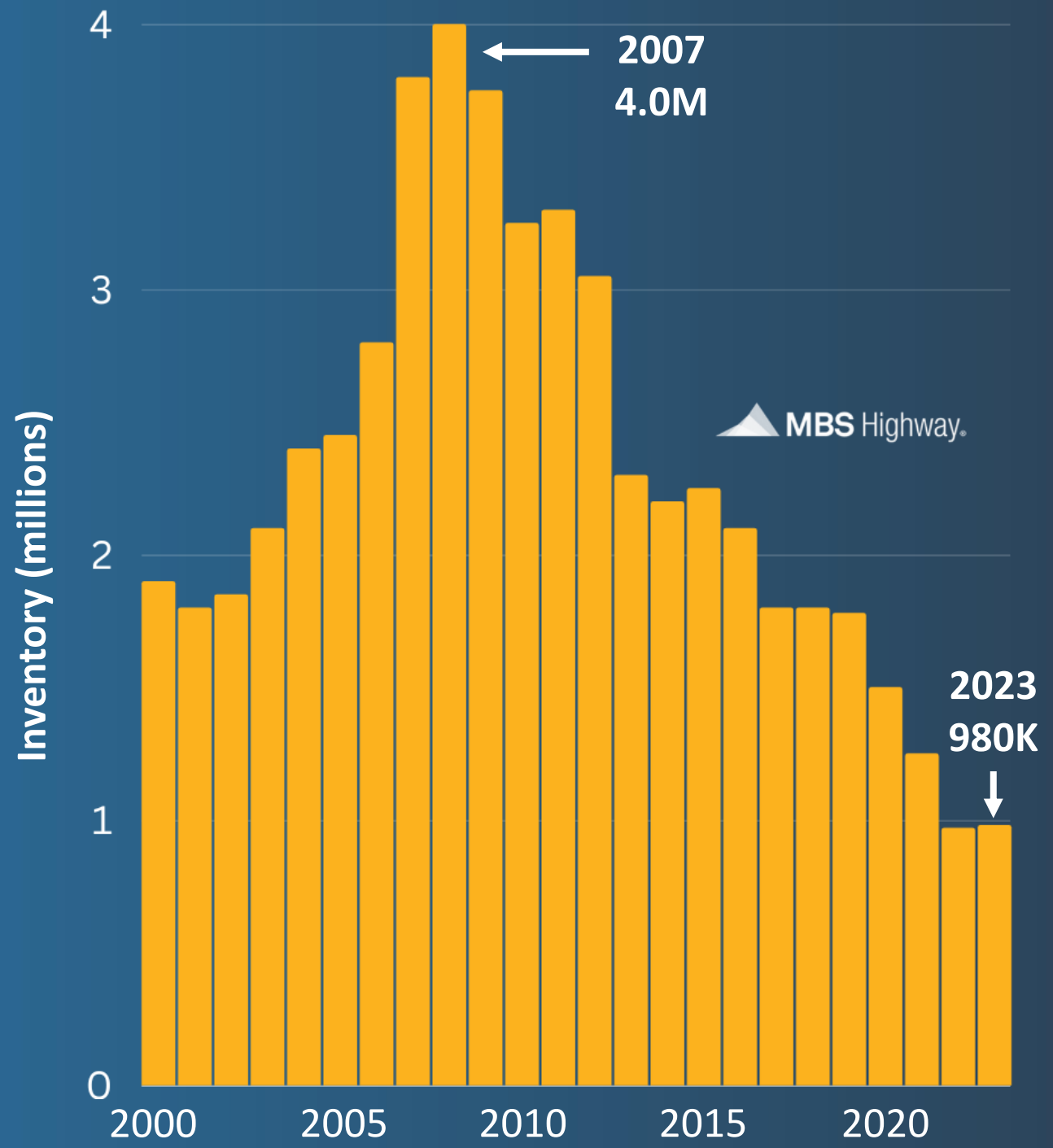
Generation X
55M

Millennial
66M

Post-Millennial
61M

Existing Home Inventory

1999 – 2022



Existing Home Inventory – The Real Story

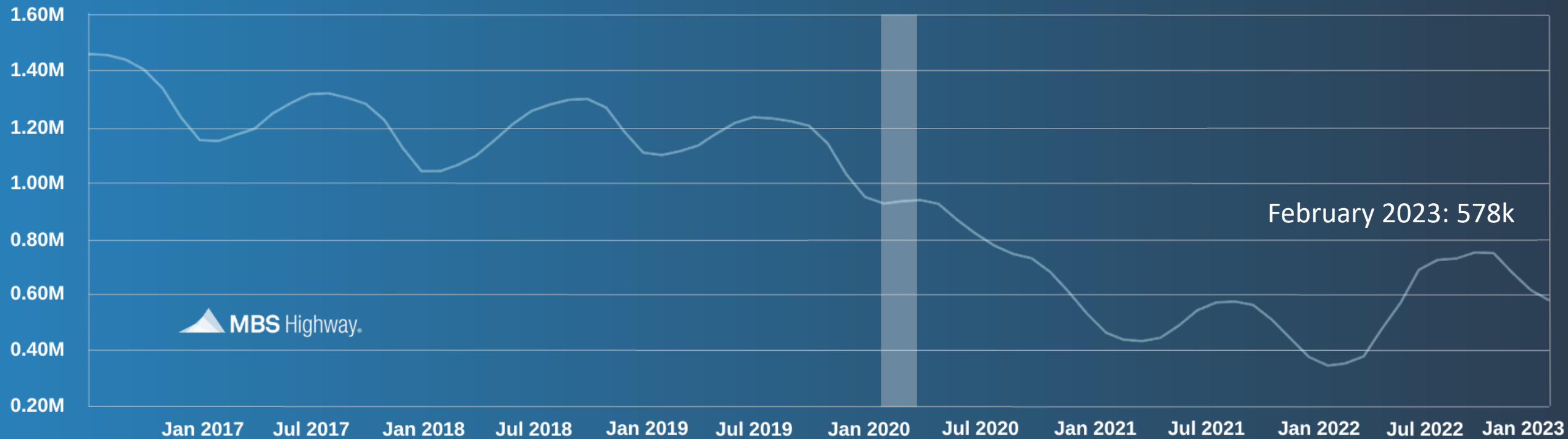
Existing Homes in Inventory	980k
Under Contract – Off Market	<u>- 402k</u>
Active Listings – Actual Inventory	578k

 MBS Highway®

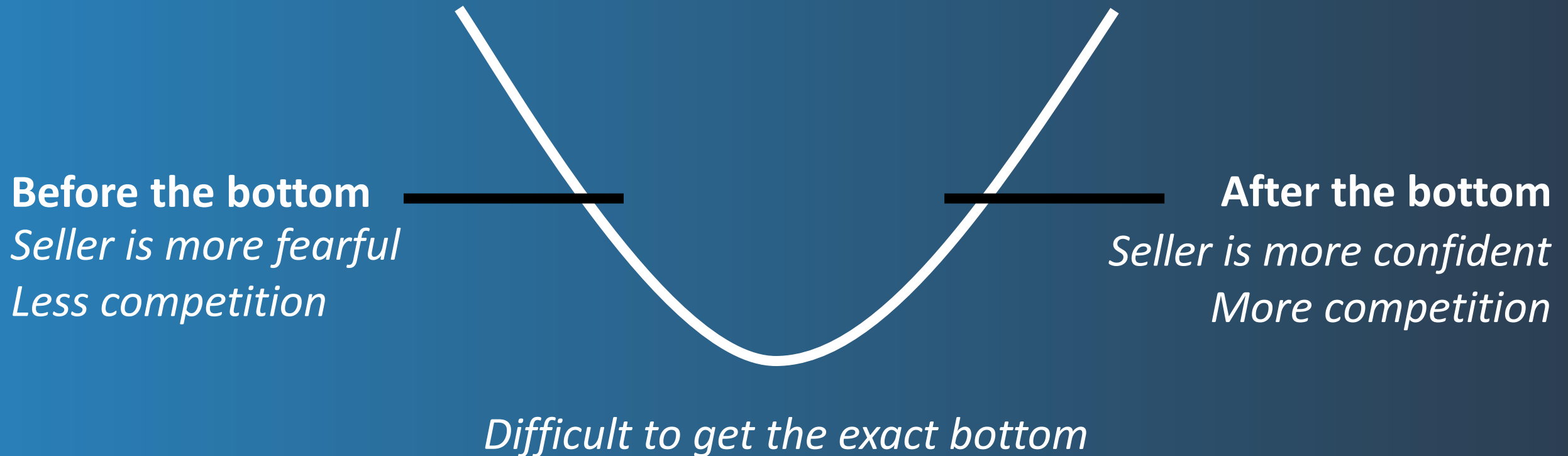


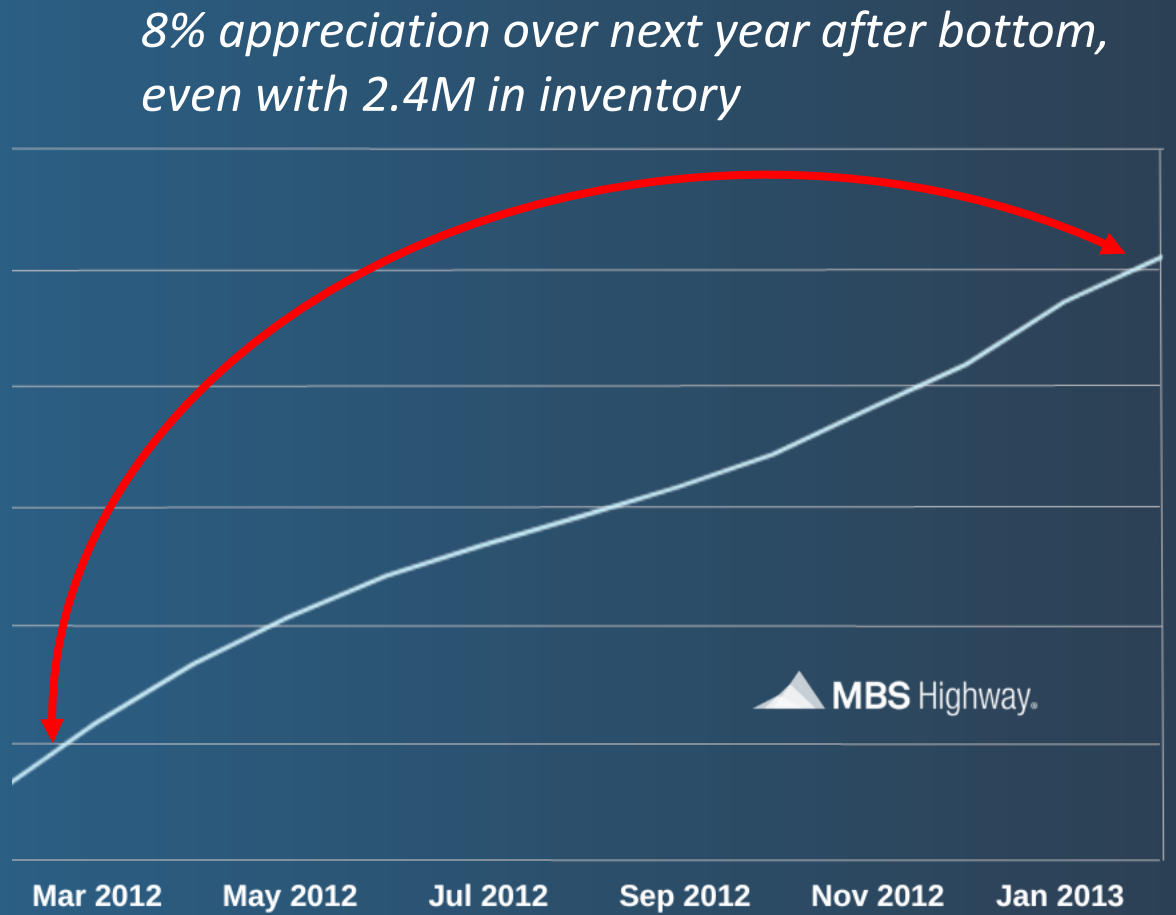
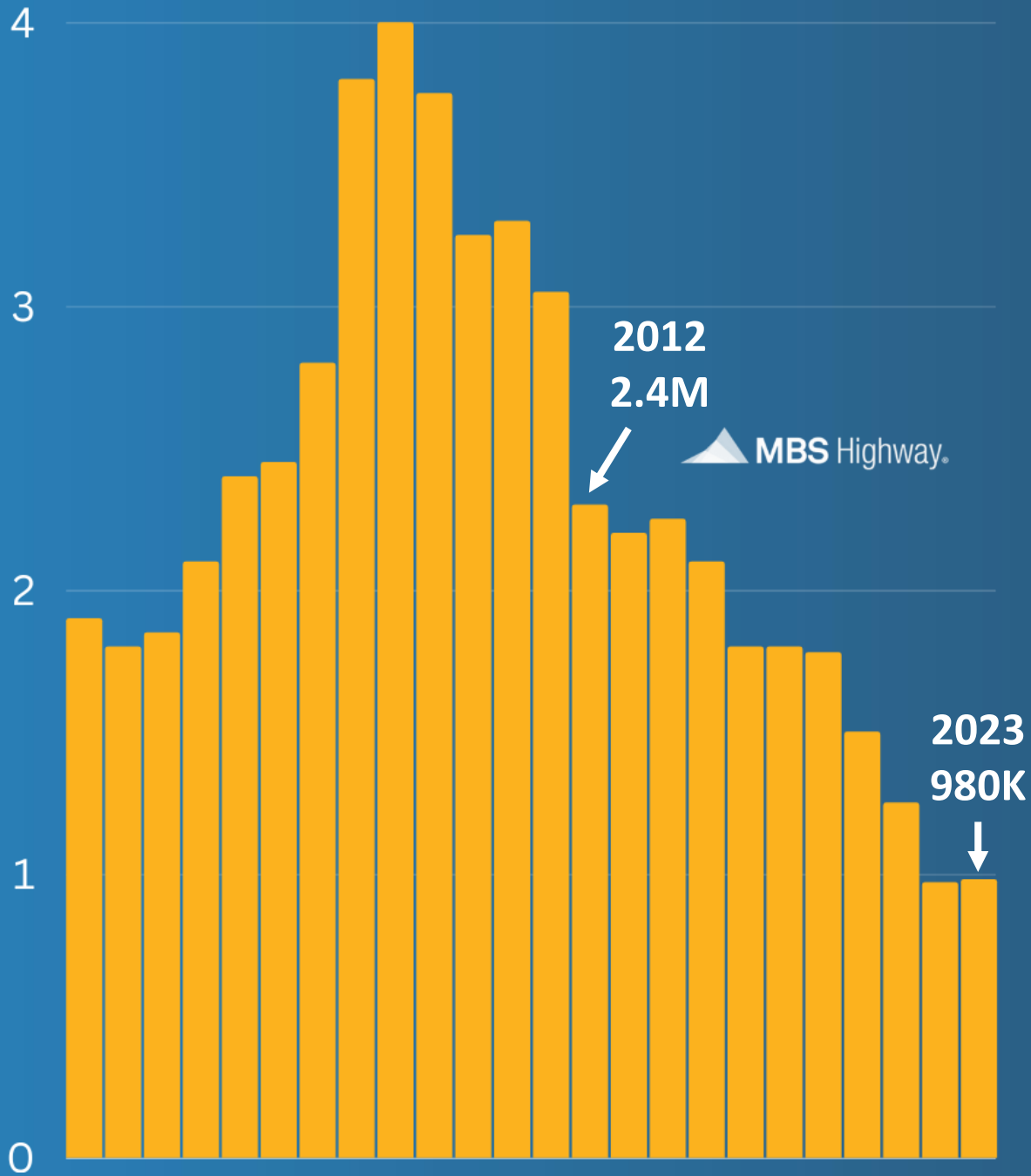
UNDER CONTRACT

Active Existing Home Listings in the US



Use the Current Market as an Opportunity





Use the Current Market as an Opportunity

Example

Home value	\$500k
Mortgage amount	\$400k

Rates have risen about 1%

Monthly payment increase 30-year	\$ 257
Increase over a year	\$3,084

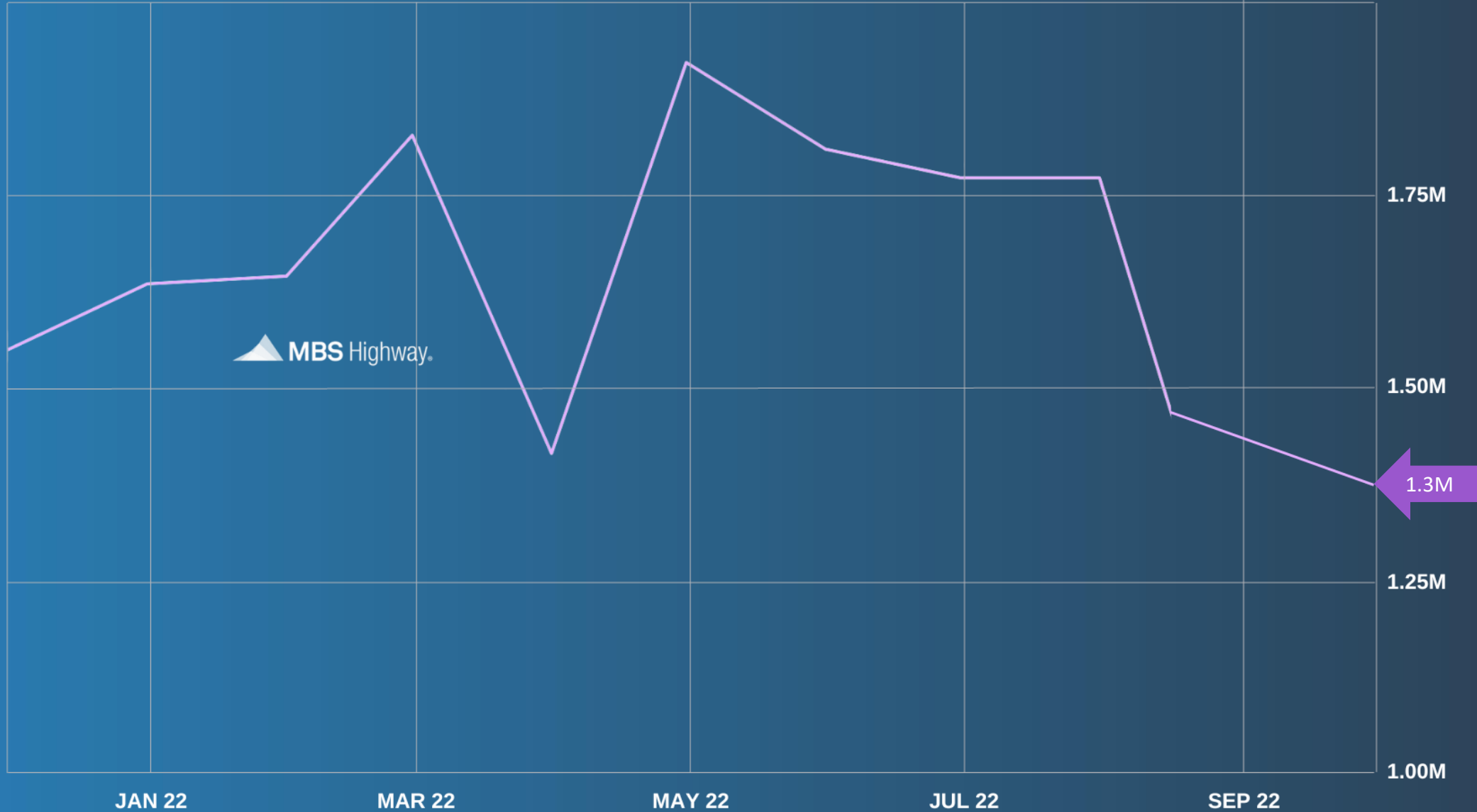
Opportunity is 2% discount	\$10,000 savings
Prices rise as rates decline, 3% est.	\$15,000 appreciation
Cost for higher rate plus refi	- \$ 5,000 higher rate/refi
Total benefit	<u>\$20,000</u>

Inverted Yield Curve: 10-year minus 3-month

Perfect Predictor of Recession



Housing Demand – Household Formations

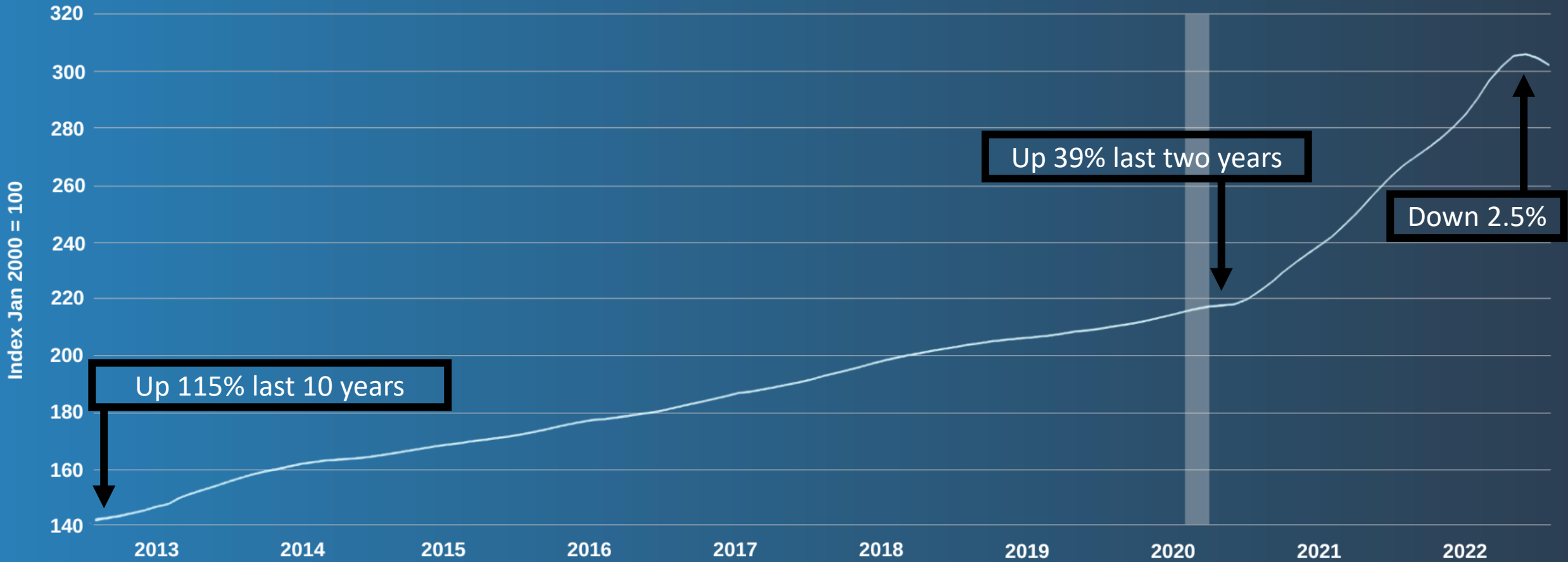


New Housing Supply

Housing Starts Completed	1.5M
Replaced Annually	-0.1M
Total New Supply	1.4M
Household Formations	1.3M

Builders are cautious because they learned their lesson from 2006-2009

Home Price Moderation – Hardly a Crash



Affordability

	Loan Amount	Rate	Monthly Payment P&I	Household Income	
Last year	\$400,000 <i>10% appreciation</i>	3.5%	\$1,796		\$9,000 <i>9% increase</i>
This year	\$440,000	6.25%	\$2,709	+\$913	\$9,810
			Gasoline \$ 89		
			Food \$ 79		
			Services \$ 73		
			Total \$ 1,154		
					<i>If only 5% increase</i>
				+\$1,300	\$10,300
Next year	\$440,000	5.0%	\$2,362	+\$807	Next year

Source: ADP
 Stayers 7.6%
 Switchers 15.1%
Average 9%



Housing Forecast

- Lower inflation
- Recession-like slowdown
- Incomes increasing to help affordability
- Very tight inventory environment
- Rents still expensive and rising

Low single-digit appreciation for most of the US with a pickup in activity

Mortgage Rate Forecast

Headwinds

- Global quantitative tightening
- Lack of foreign Central Bank buying
- More debt to be financed

Tailwinds

- Lower inflation
- Excess retail inventory
- Increase in mortgage servicing value
- Recession likely
 - Rates decline during recessions

30-year fixed mortgage rates move near 5% during first half of 2023

US 10-year near 3% or lower