

State of the Industry

DAVE MCILWAINE

Let's Talk About

- Rates of Change and how to track and utilize them
- Where we are in the various sectors of the economy
- The Overall Economic Theme for the balance of 2023 and 2024
- Where are we in the replacement housing cycle
- What is the story with new housing
- What was last winter like – any implications for this winter
- What happened in 2023 and what does it potentially mean for 2024
- What is the market opportunity

Utilizing Rate of Change Tracking

- Rate of change is the ratio of an item during a certain period compared to a comparison period

- **1/12** would be a comparison of sales in August 2022 vs rate in August 2021

- Example Sales in August 2022 = \$1,000,000 / Sales in August 2021 = \$800,000 = 1.25

- **3/12** would be sales in the last 3 months versus sales in the same 3 months in the prior year

- Example Sales for June, July and August 2022 or \$900,000 + \$1,100,00 + \$1,000,000 = \$3,000,000 divided by
Sales for June, July and August 2021 or \$800,000 + \$900,000 + \$975,000 = \$2,675,000
or \$3,000,000 / \$2,675,000 = 1.122

- **12/12** would be sales in the last 12 months versus sales in the same 12 months in the prior year

Add the 12 months together for 2022 and sum the same 12 months for 2021, divide them and you have a 12/12 ratio

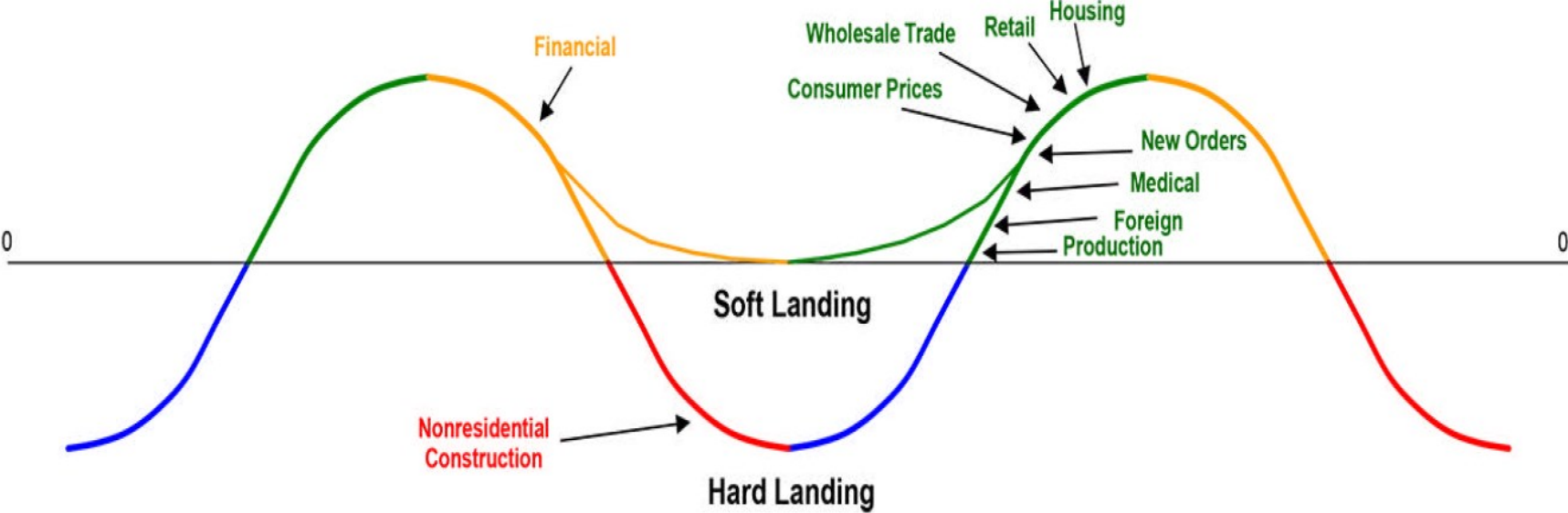
Excel Calculation Example

Month/Year	Sales Dollars		1/12 Example		3/12 Example		12/12 Example
Sep-21	\$ 860,000						
Oct-21	\$ 1,100,000						
Nov-21	\$ 1,000,000						
Dec-21	\$ 800,000						
Jan-22	\$ 750,000						
Feb-22	\$ 745,000						
Mar-22	\$ 825,000						
Apr-22	\$ 950,000						
May-22	\$ 995,000						
Jun-22	\$ 1,250,000						
Jul-22	\$ 1,150,000						
Aug-22	\$ 1,000,000						
Sep-22	\$ 980,000						
Oct-22	\$ 1,250,000						
Nov-22	\$ 1,150,000						
Dec-22	\$ 1,050,000						
Jan-23	\$ 1,100,000						
Feb-23	\$ 995,000						
Mar-23	\$ 1,025,000						
Apr-23	\$ 1,100,000						
May-23	\$ 1,150,000						
Jun-23	\$ 1,300,000						
Jul-23	\$ 1,325,000						
Aug-23	\$ 1,195,000		August 23/August 22 1,195,000/1,000,000		Jun - Aug 23/Jun - Aug22 3,820,000/3,400,000		Sept22-Aug23/Sept21-Aug22 13,620,000/11,425,000
				1.195		1.124	
							1.192

Data from the Excel Sheet

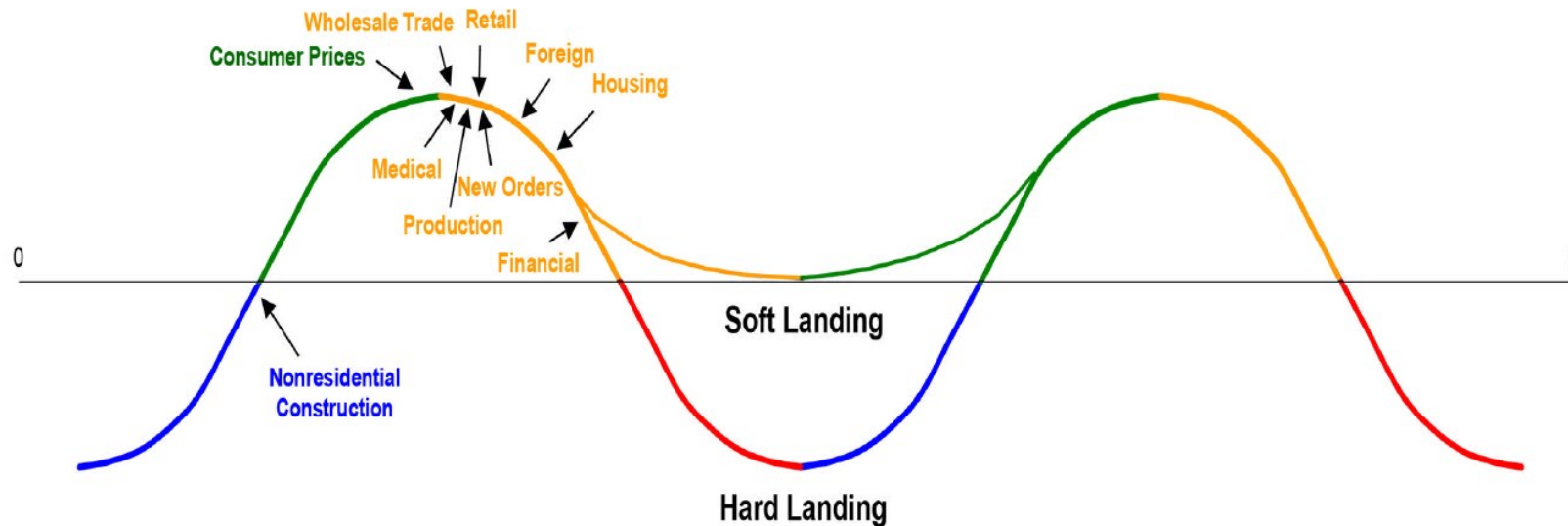
1/12 = August 23/August 22		3/12 = Jun - Aug 23/Jun - Aug22	12/12 = Sept22- Aug23/Sept21-Aug22
1,195,000/1,000,000		3,820,000/3,400,000	13,620,000/11,425,000
1.195		1.124	1.192

Industry Trends – August 2021 Chart



Various Phases of the Economy based upon 12/12 Trending
Blue = A Green = B Orange = C Red = D

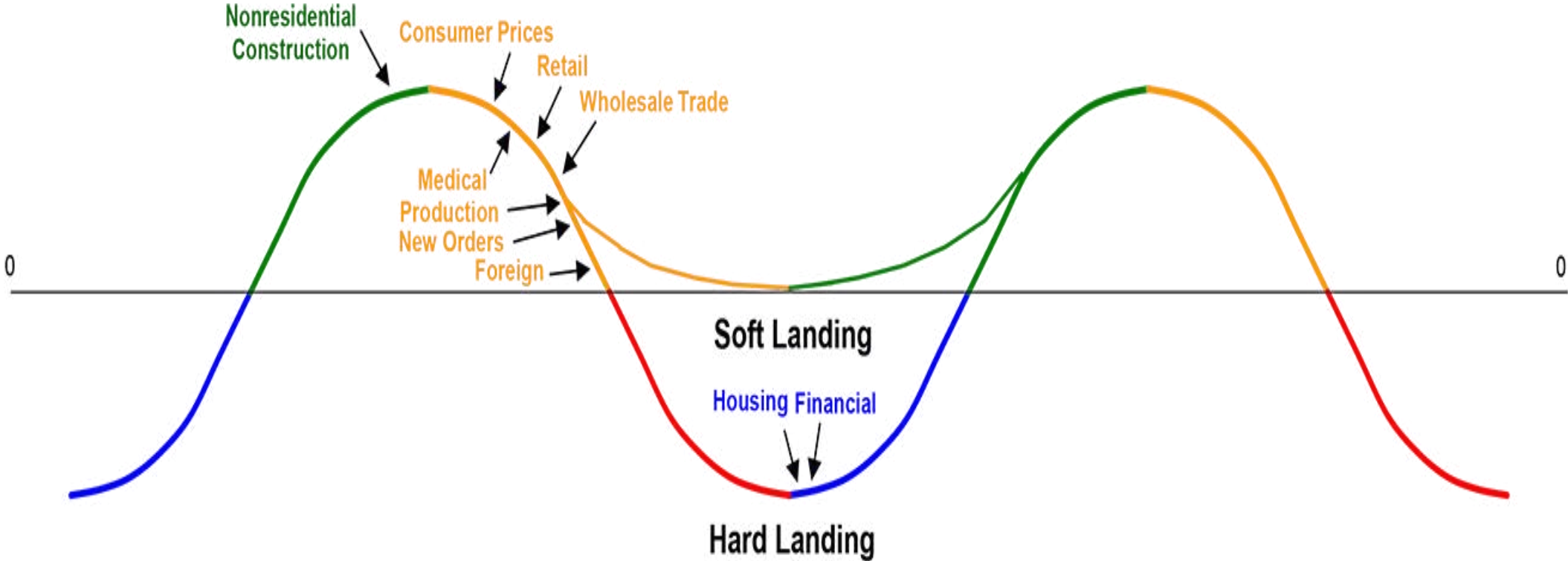
Industry Trends – August 2022 Chart



Various Phases of the Economy based upon 12/12 Trending

Blue = A Green = B Orange = C Red = D

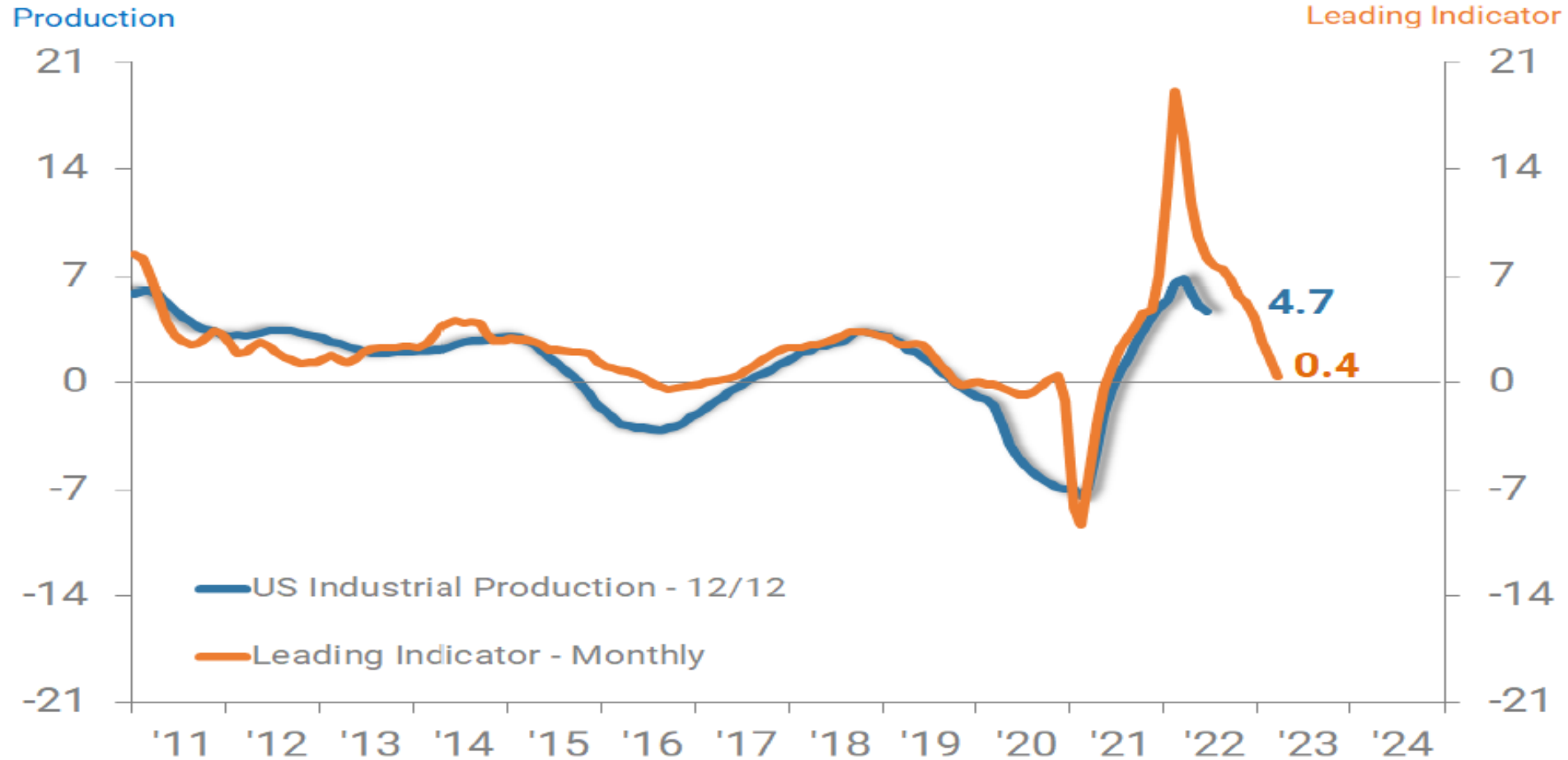
Industry Trends – August 2023 Chart



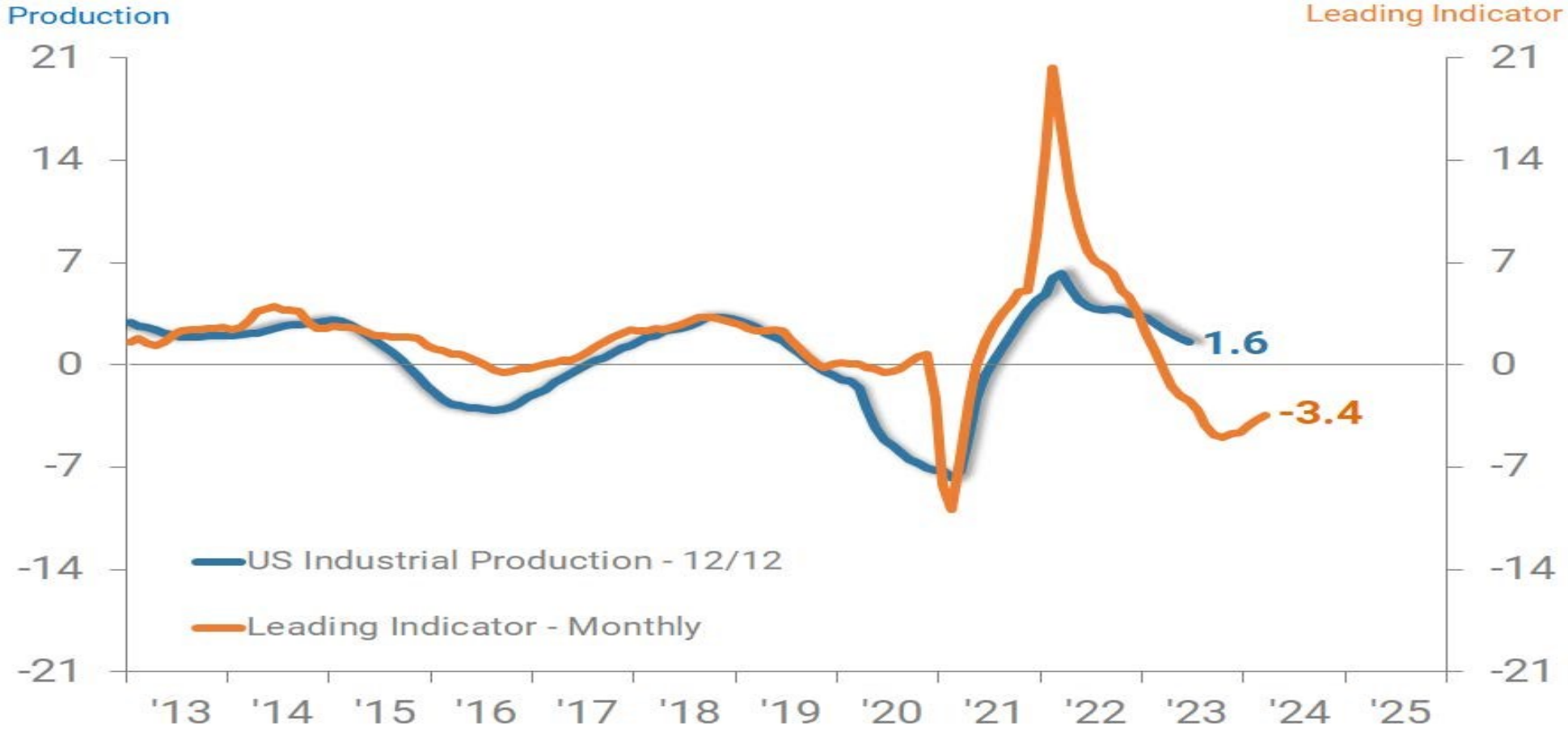
Leading Indicator - August 2021



Leading Indicator - August 2022



Leading Indicator - August 2023

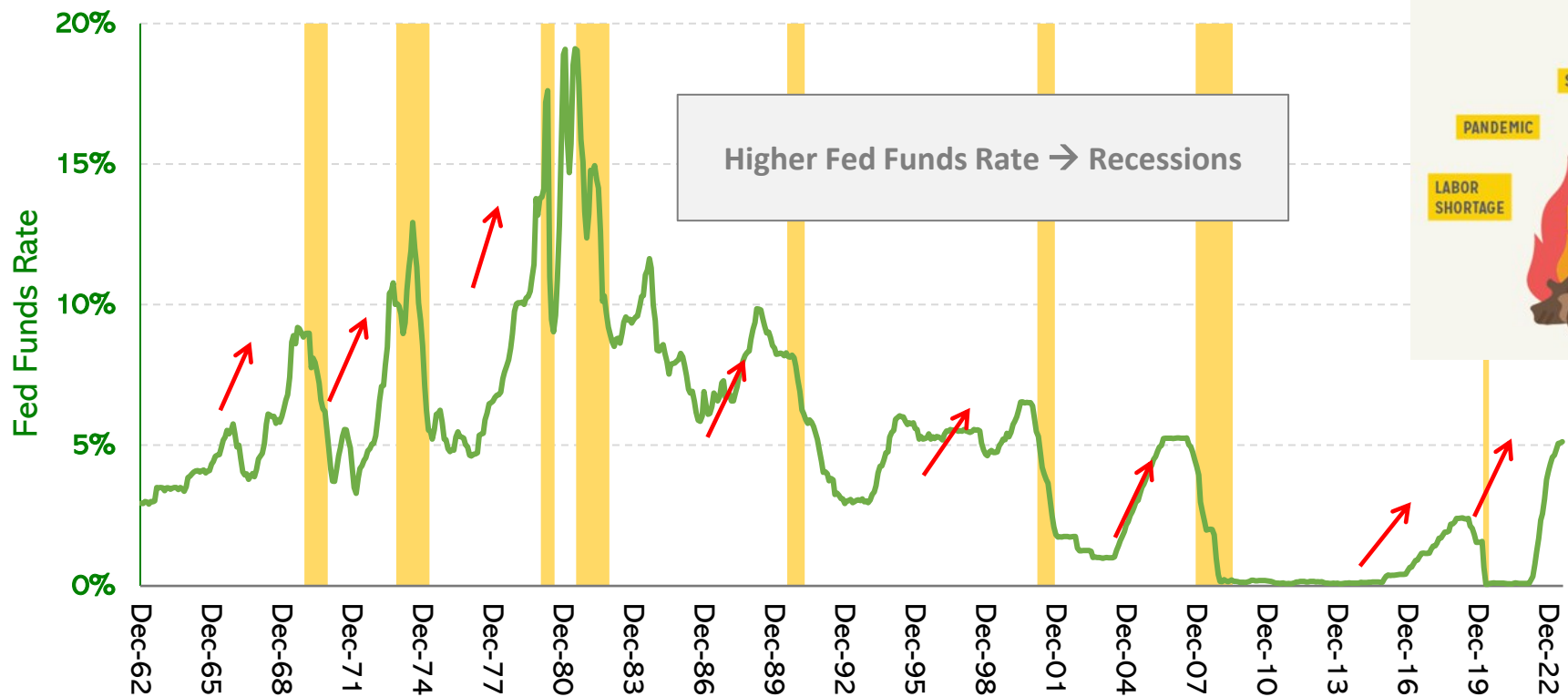


Unemployment Rate < 4%

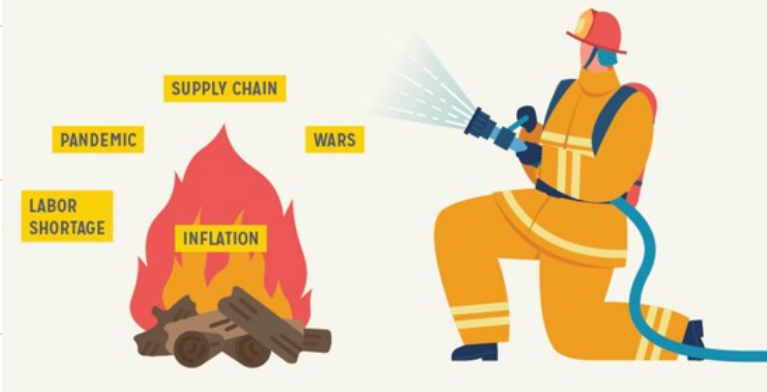


Source: U.S. Bureau of Labor Statistics

Higher Fed Funds Rate

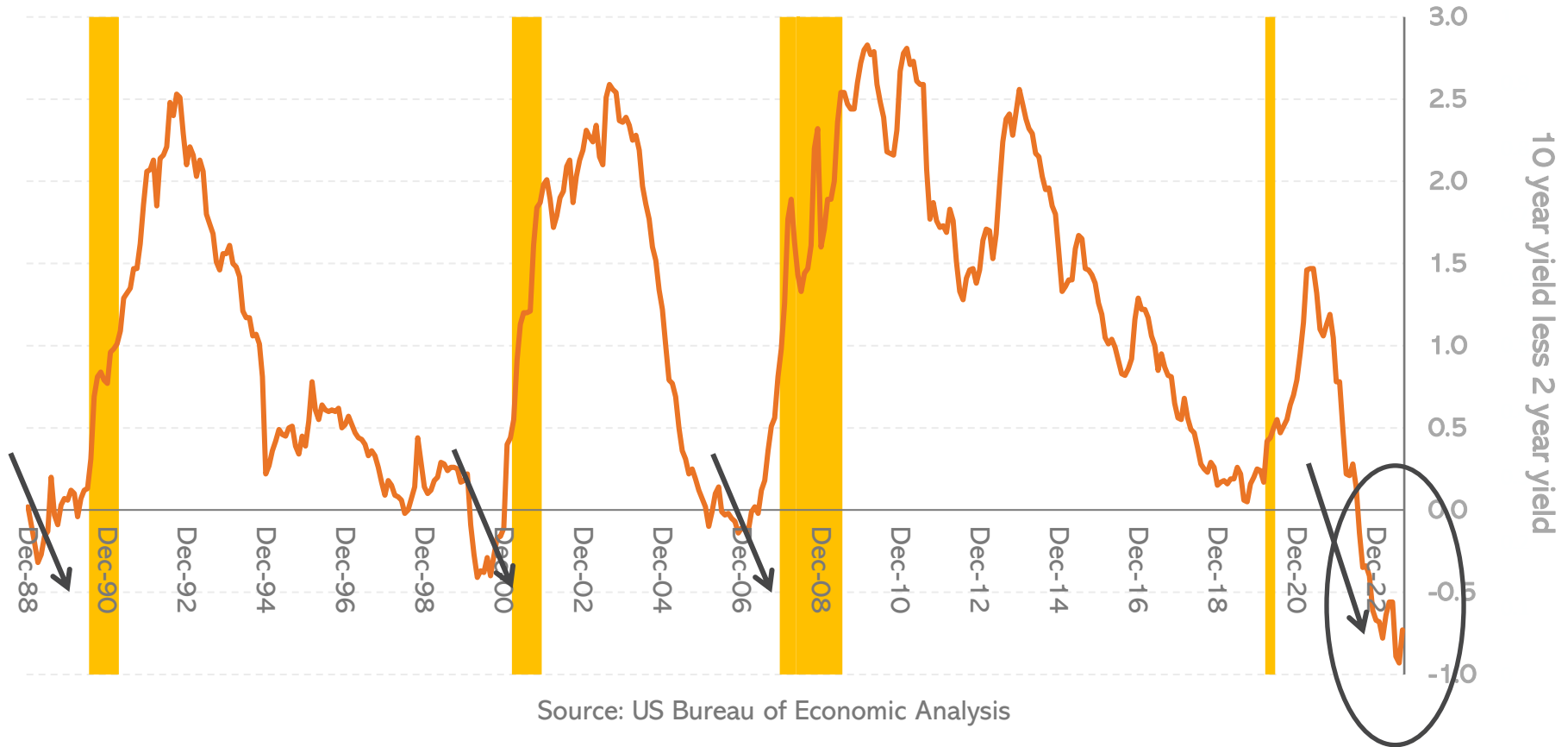


Higher Fed Funds Rate → Recessions

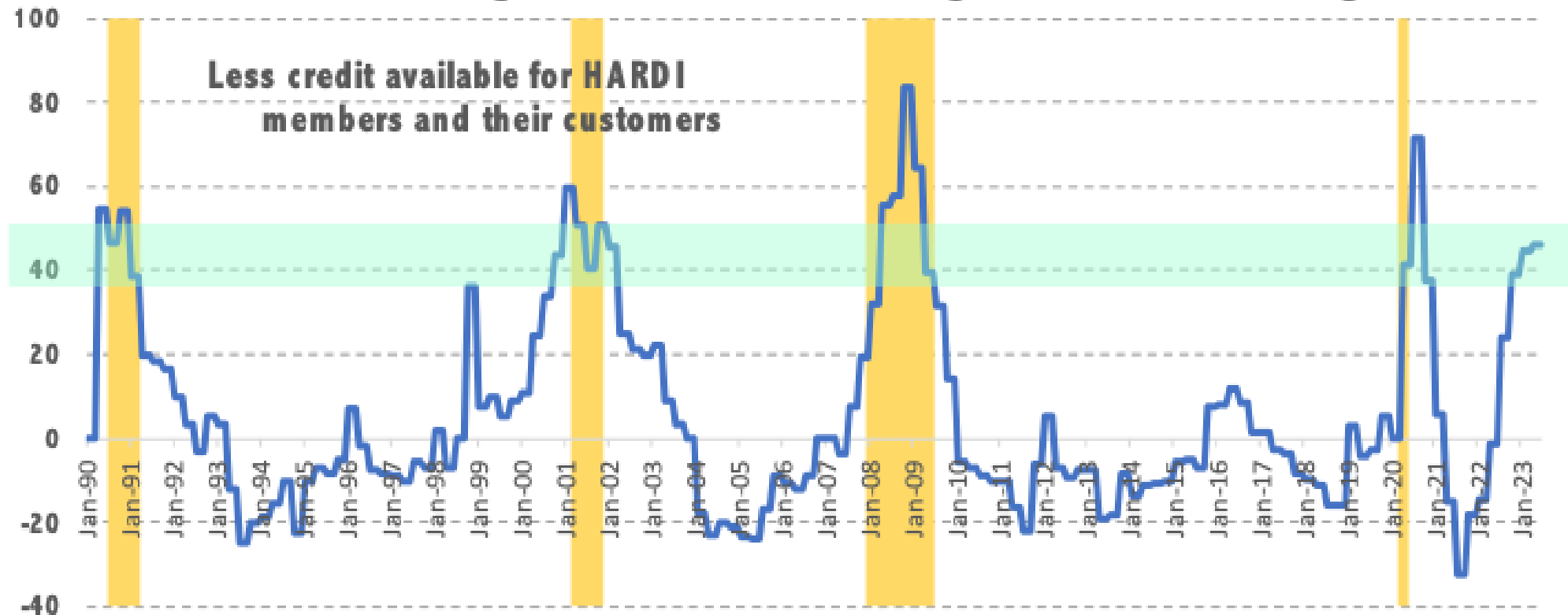


Source: Board of Governors of the Federal Reserve System (US)

Inverted Yield Curve

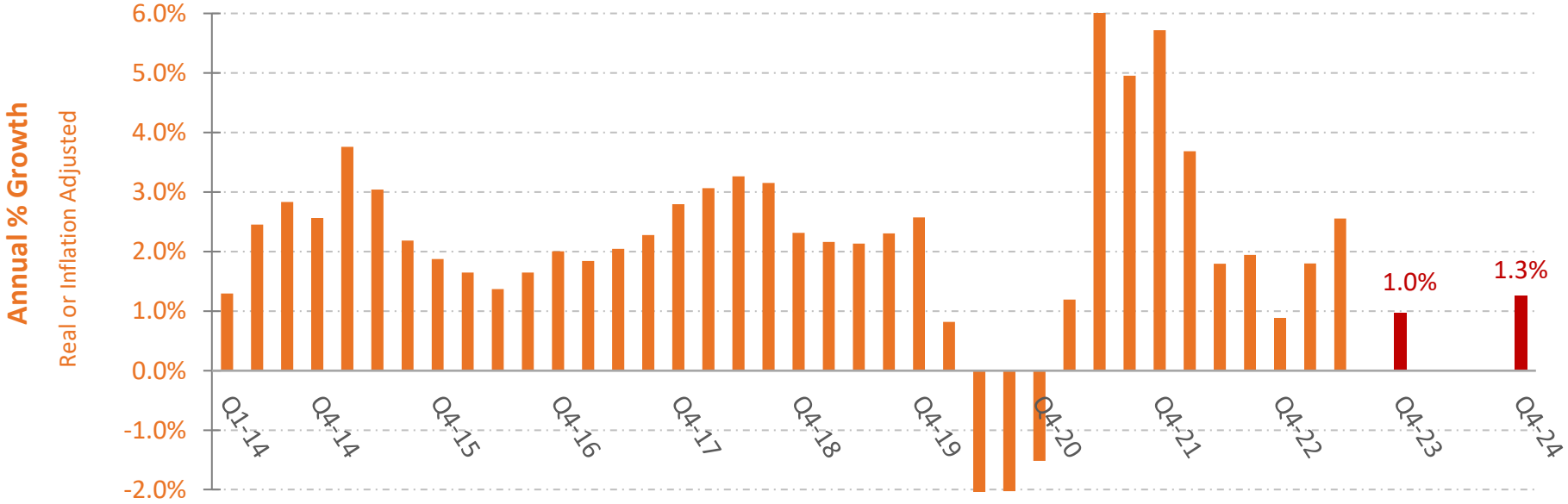


Recession Risk High When Bank Lending Standards This Tight

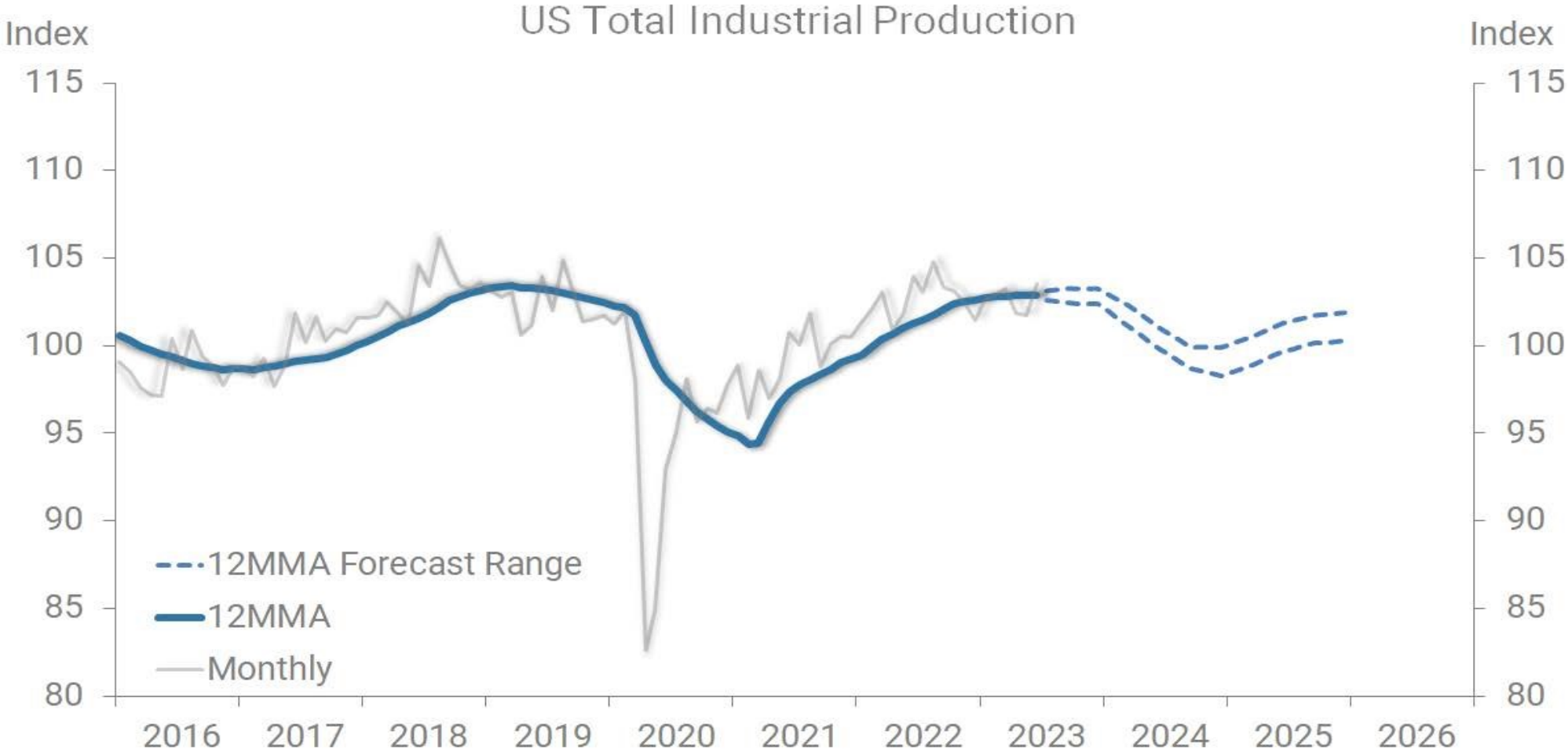


source: Senior Loan Officer Opinion Survey www.federalreserve.gov

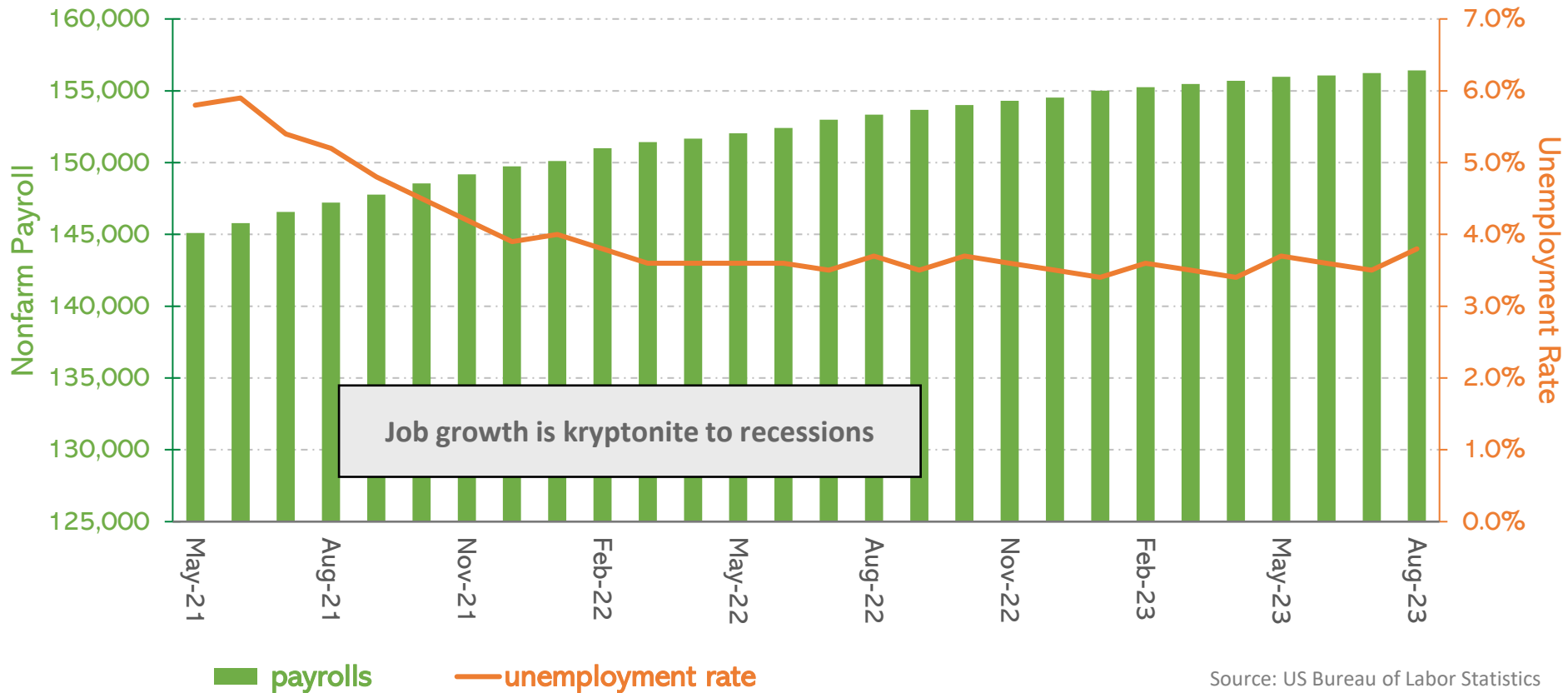
GDP and Growth Outlook



ITR US GDP Projection

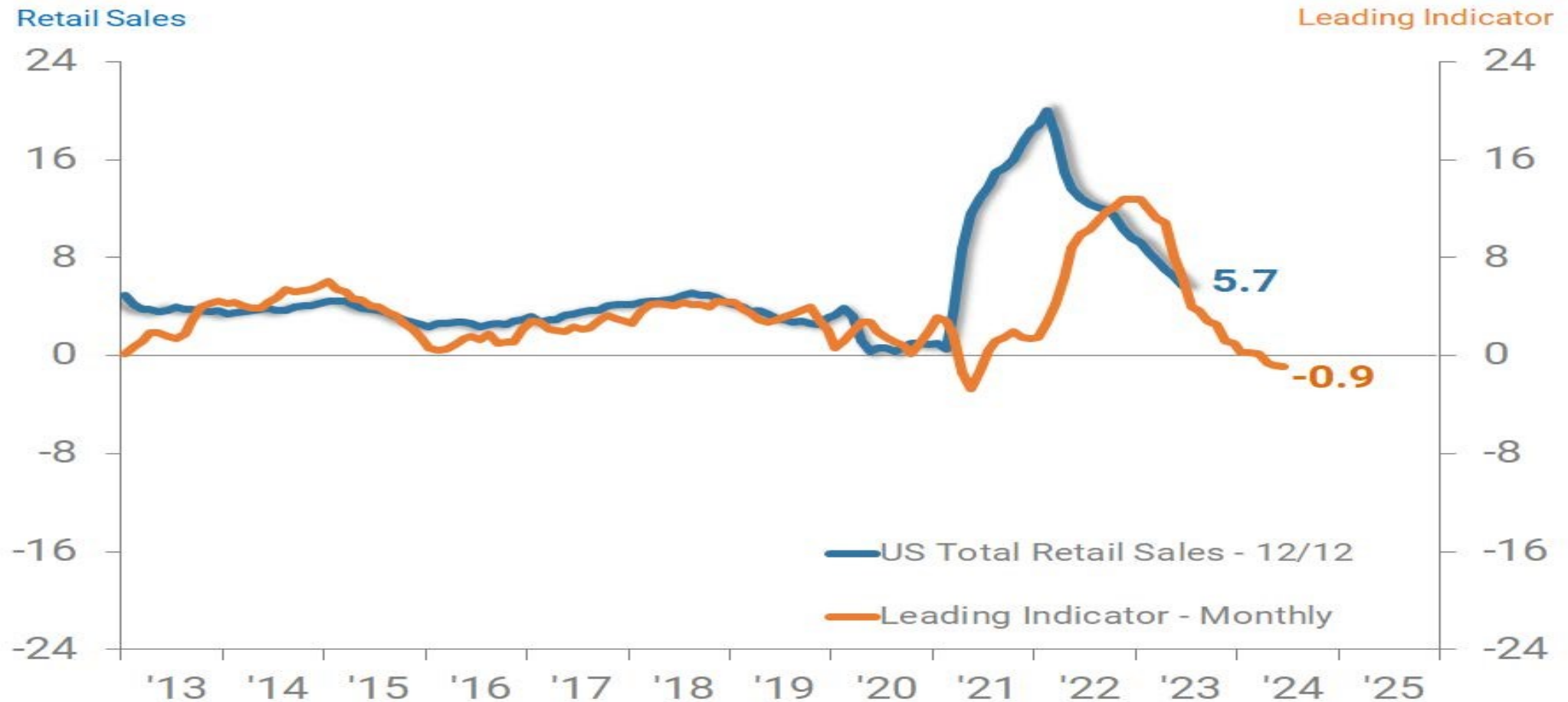


Employment Growth



Source: US Bureau of Labor Statistics

ITR US Retail Sales Projection



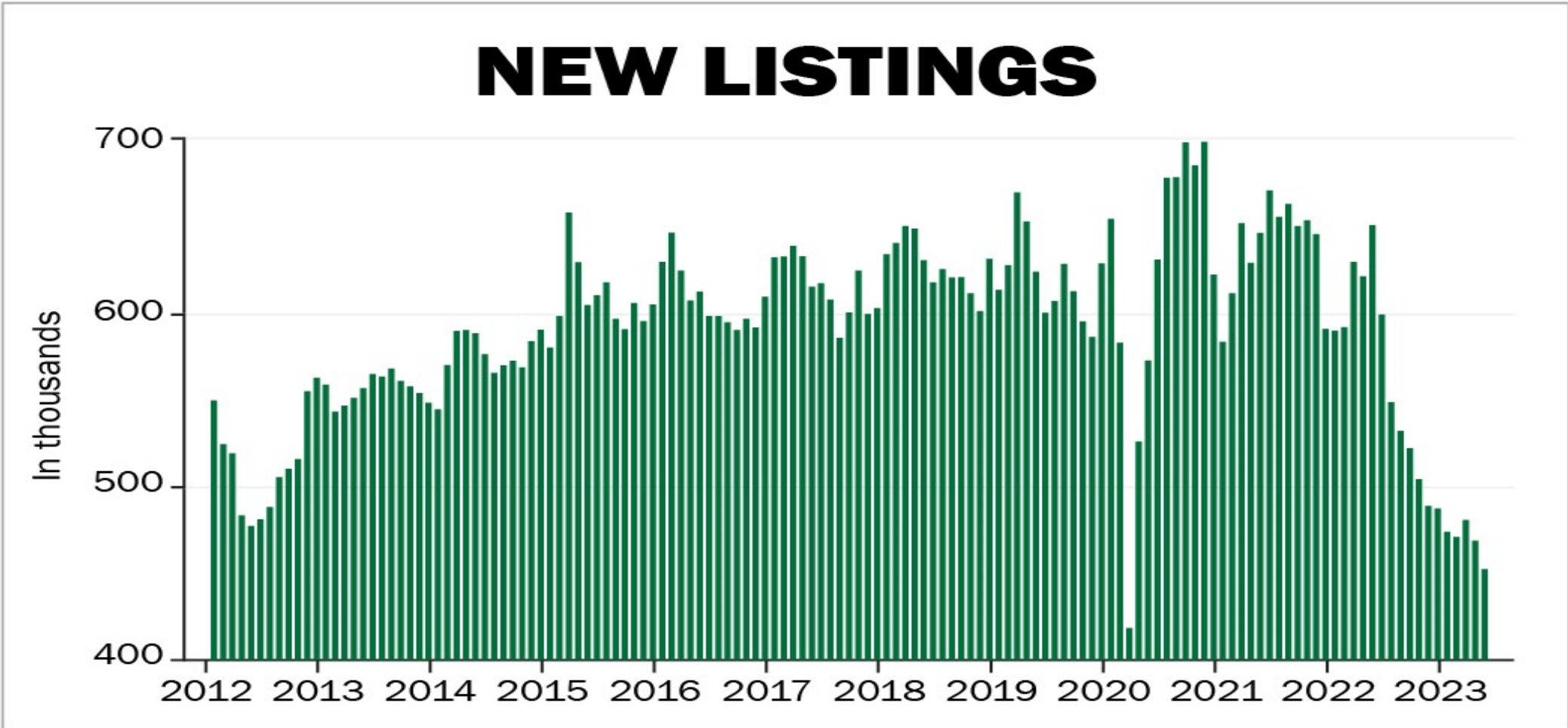
Sales of Existing Homes Influence Replacement Sales of HVAC Systems

U.S. Housing Inventory vs. Owner-Occupied Housing Units



www.stansberryresearch.com

New Listings of Existing Homes for Sale

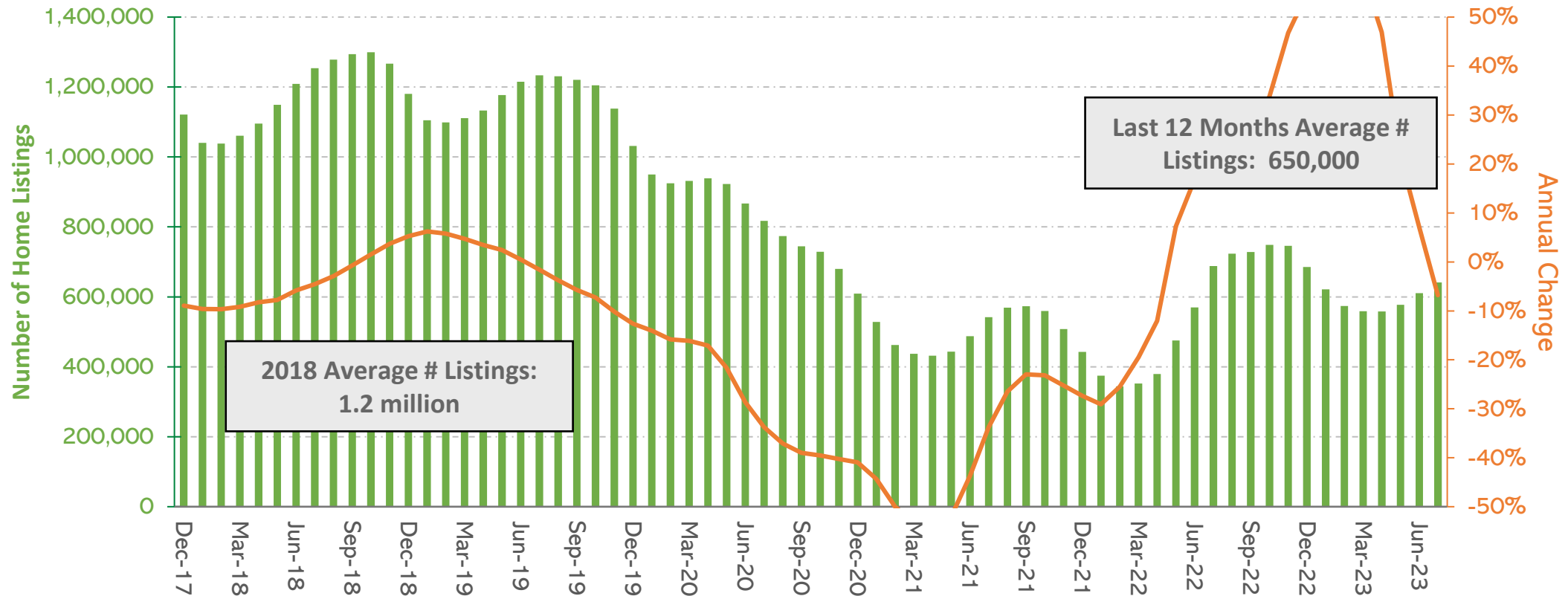


www.stansberryresearch.com

Source: Redfin



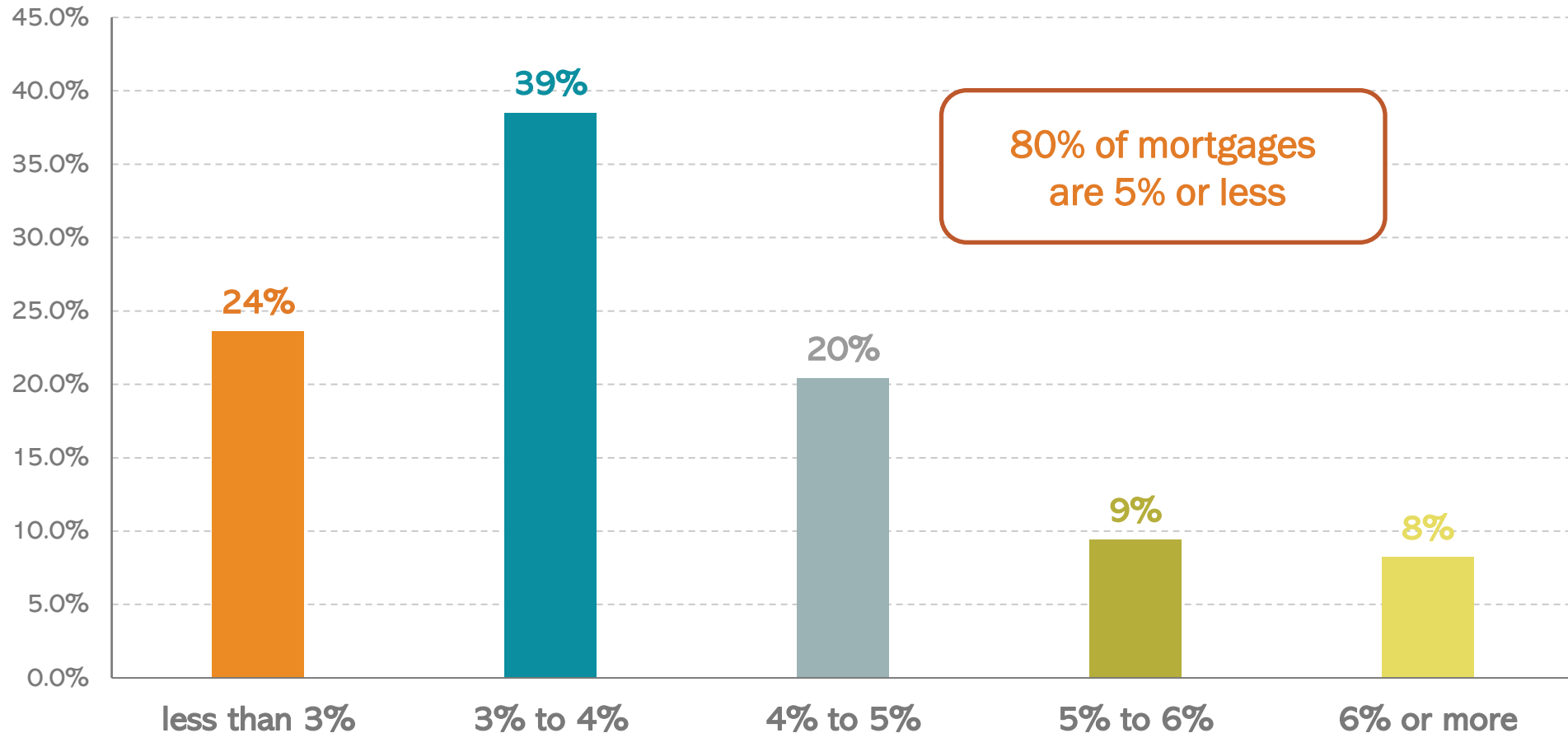
Home Listings → Existing Home Sales



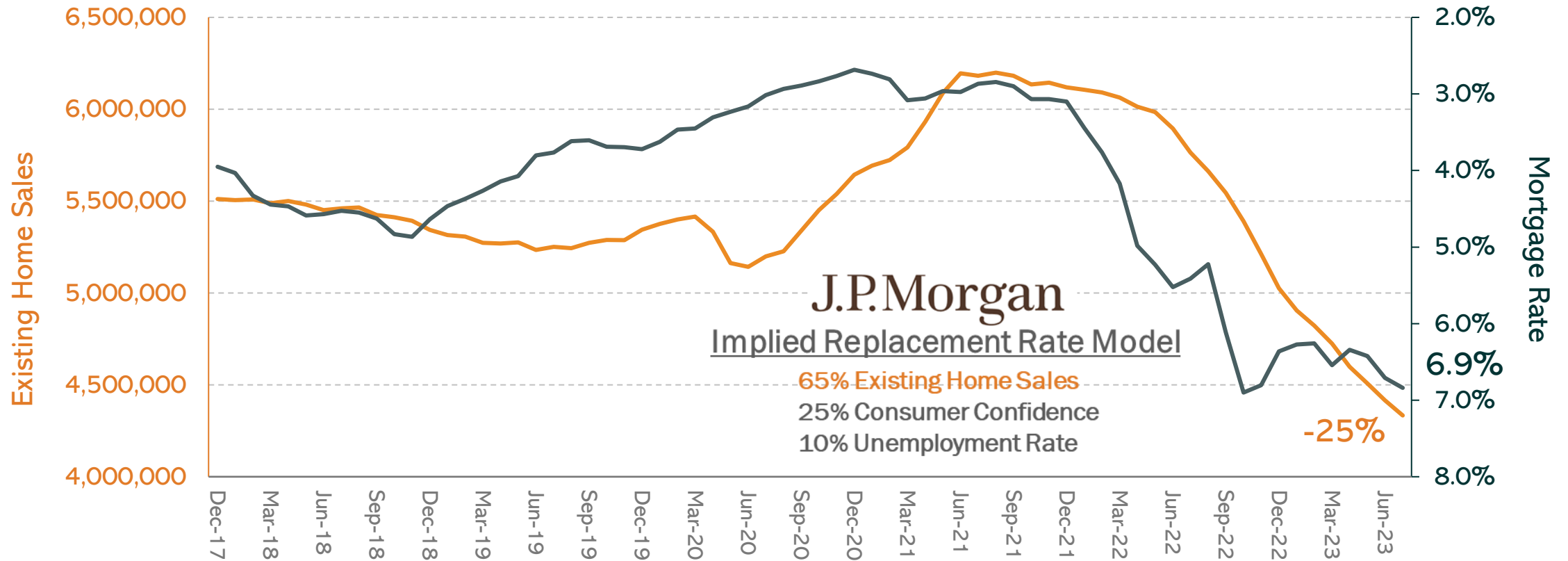
Source: realtor.com



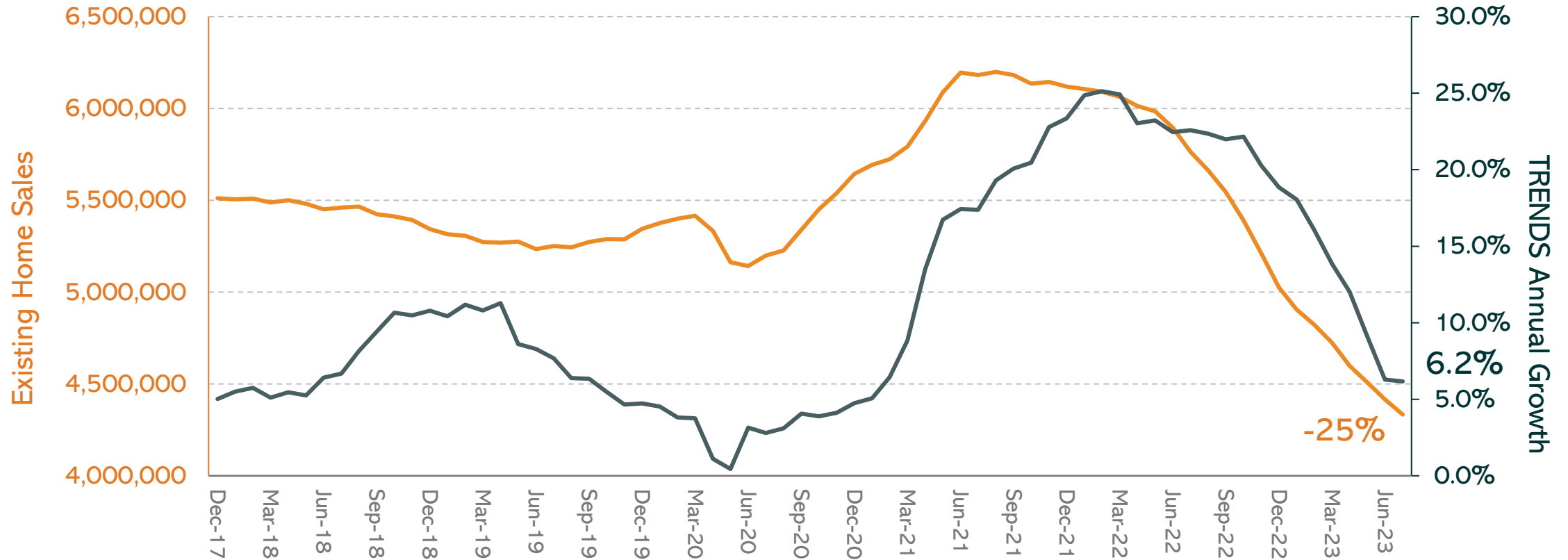
Golden Handcuffs Restrain Demand



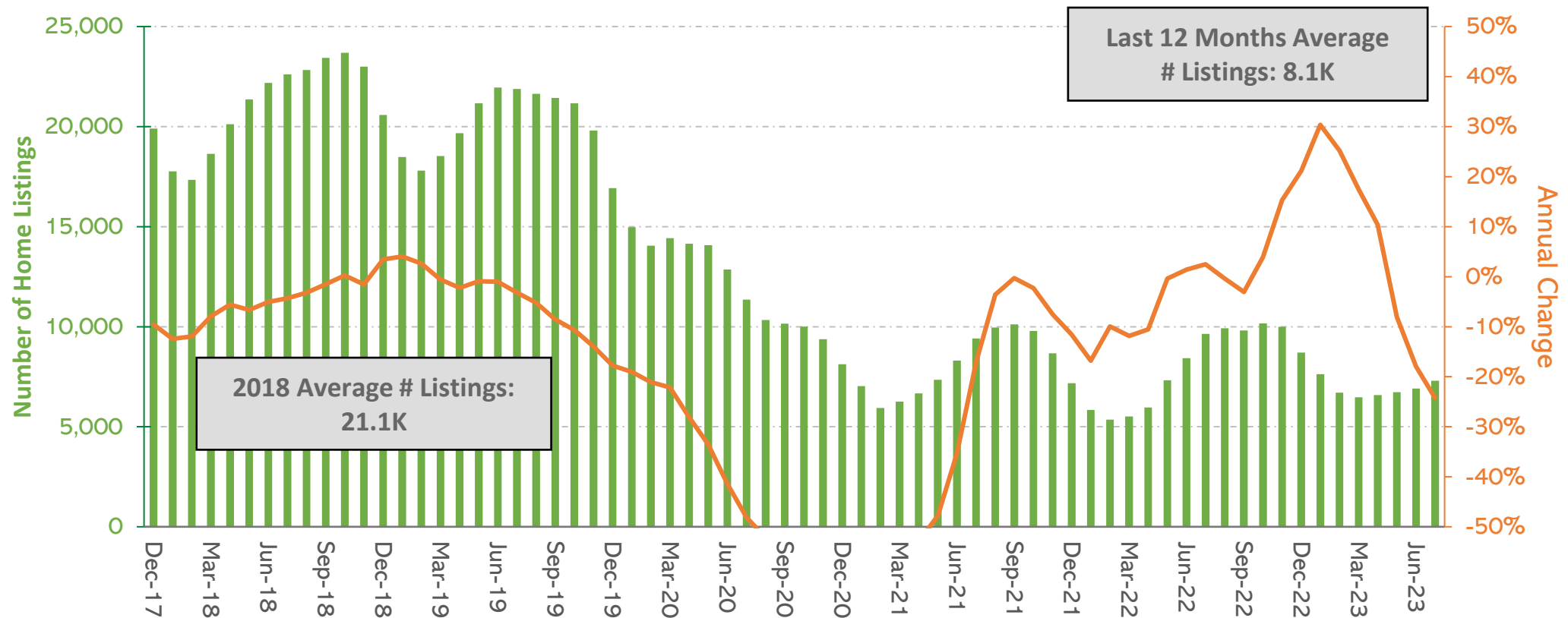
Key Variable: Existing Home Sales



Existing Home Sales and TRENDS



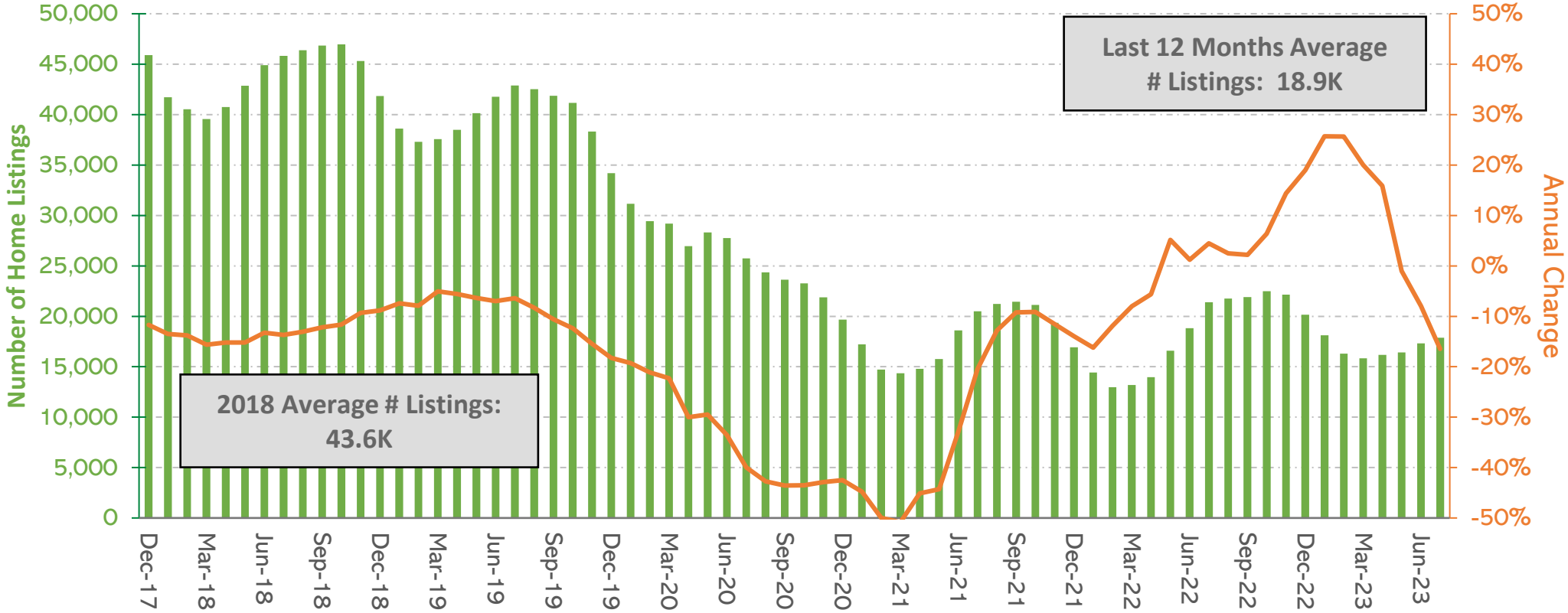
Home Listings → MD Existing Home Sales



Source: realtor.com



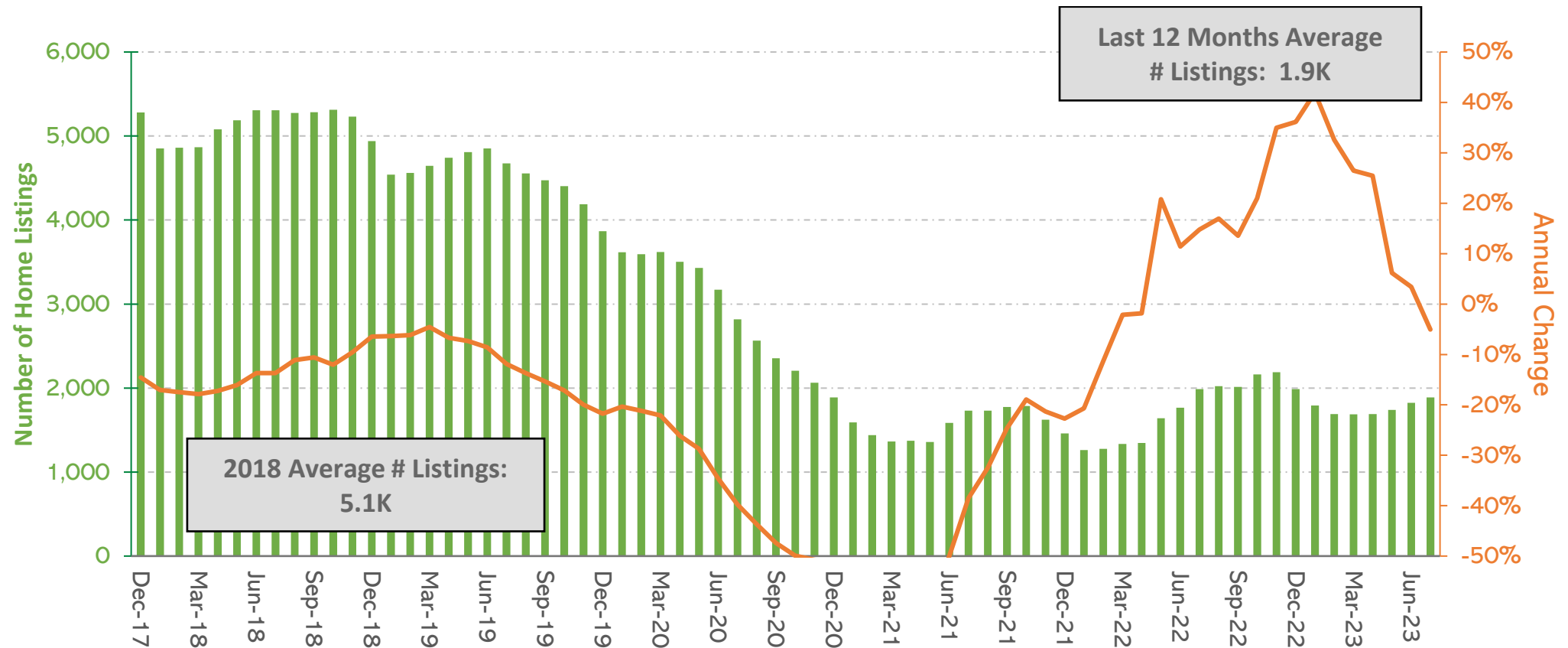
Home Listings → PA Existing Home Sales



Source: realtor.com



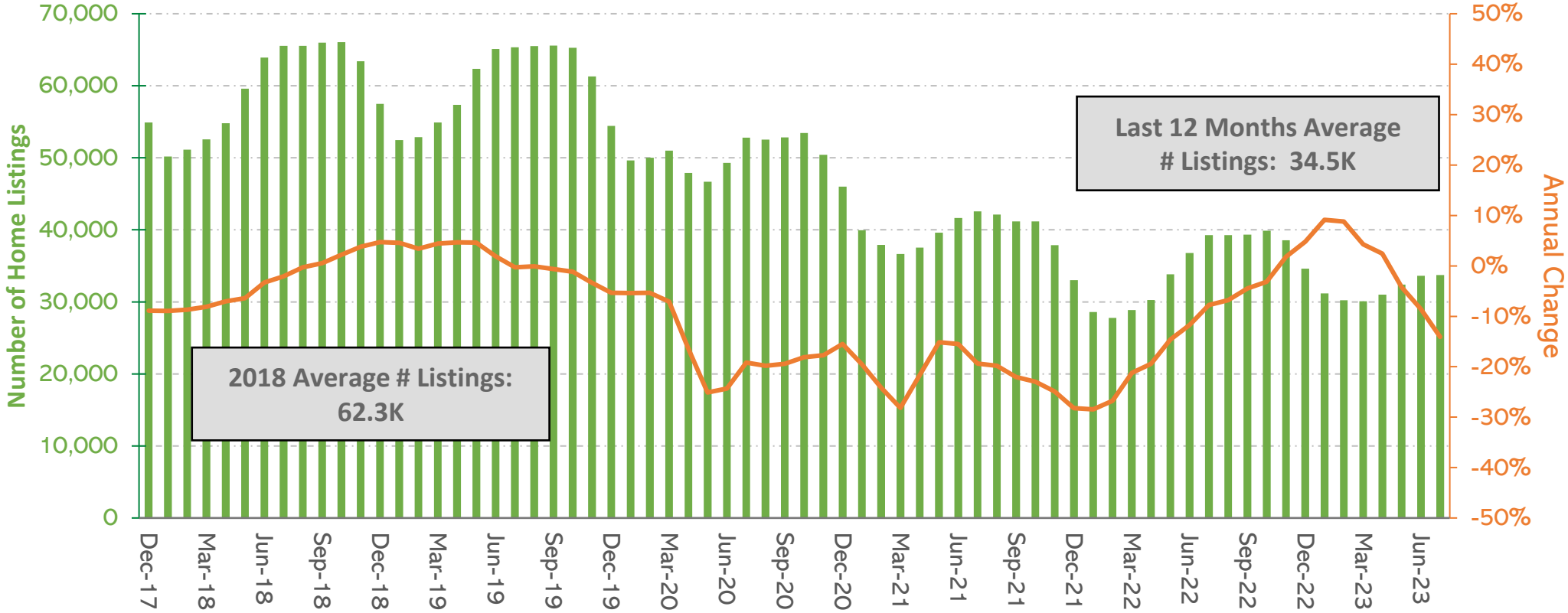
Home Listings → DE Existing Home Sales



Source: realtor.com



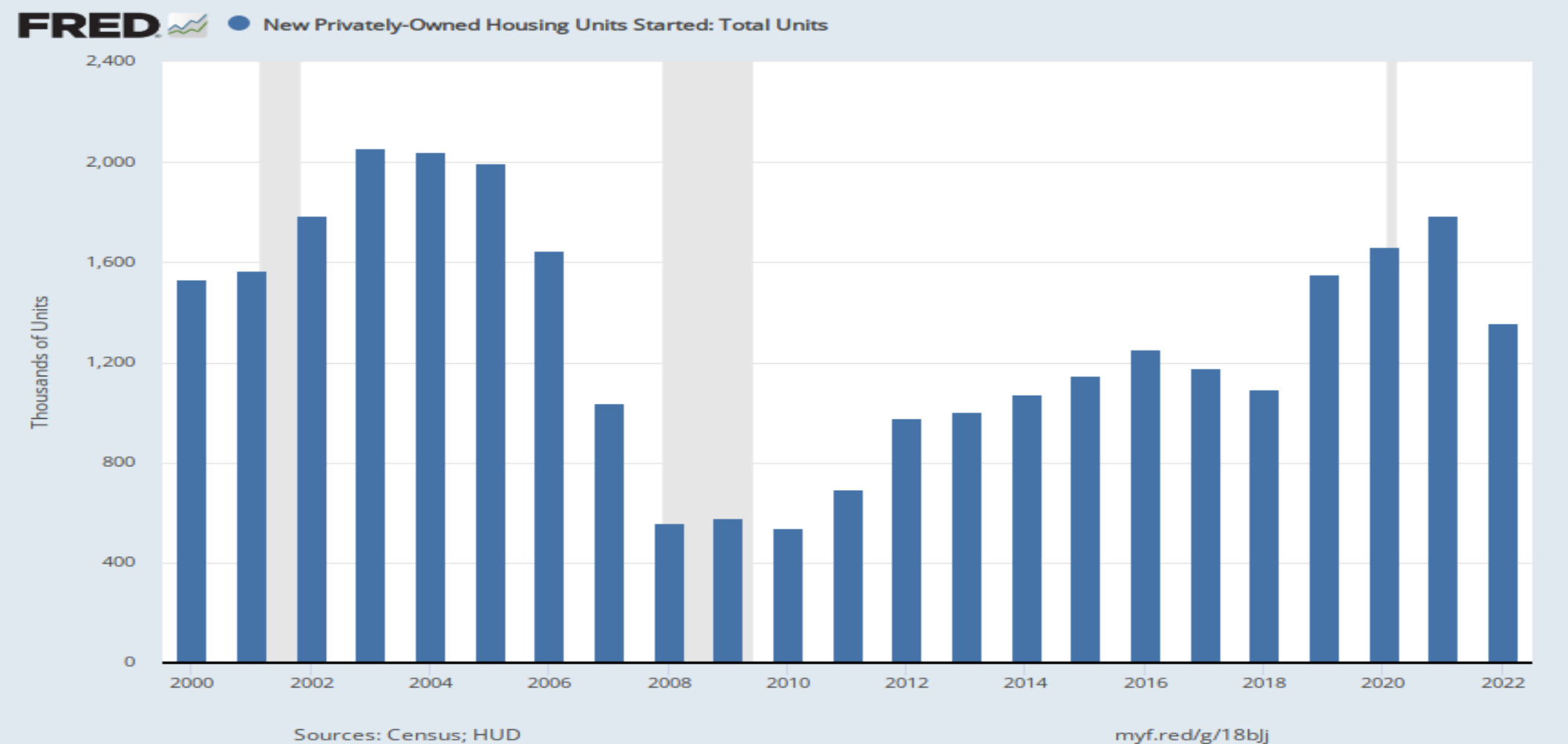
Home Listings → NY Existing Home Sales



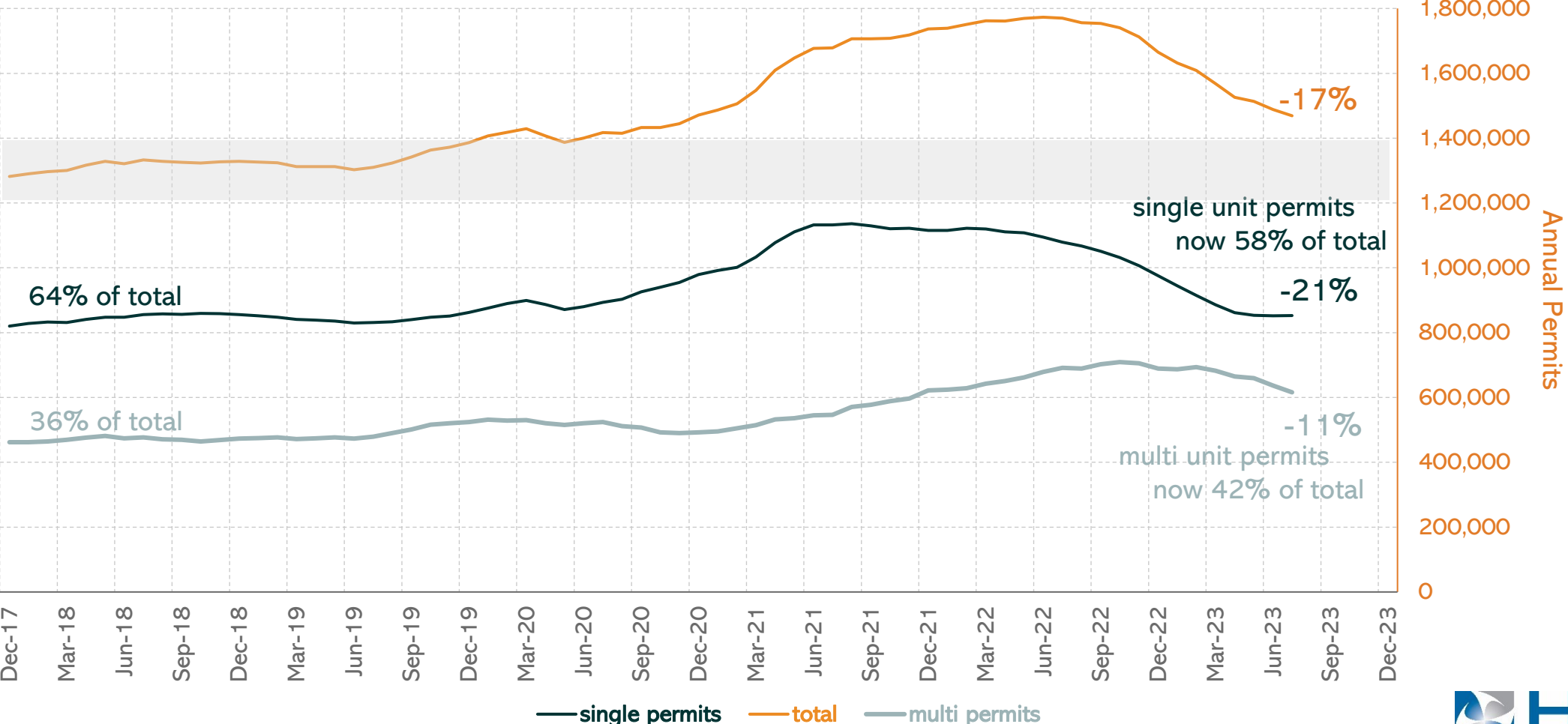
Source: realtor.com



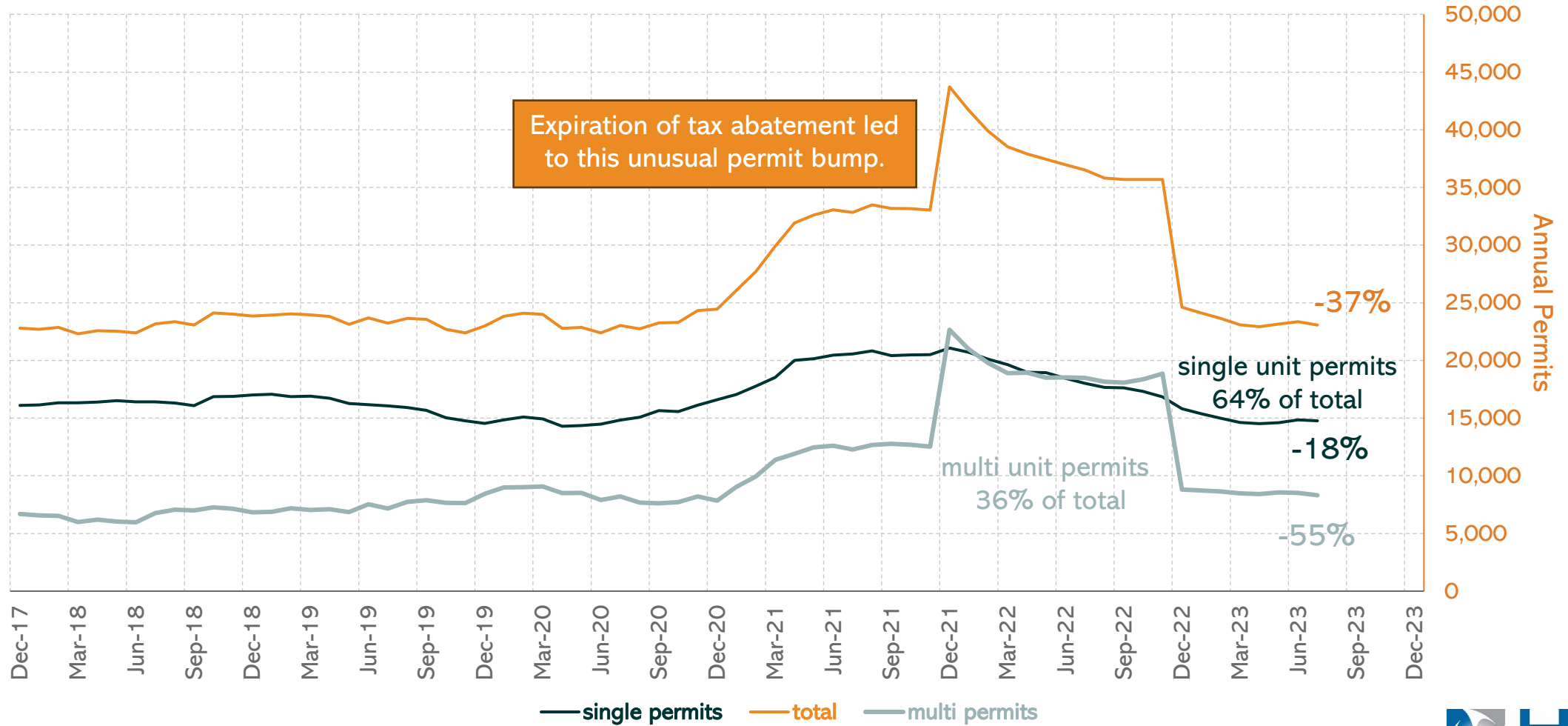
Housing Starts 2000 to 2022



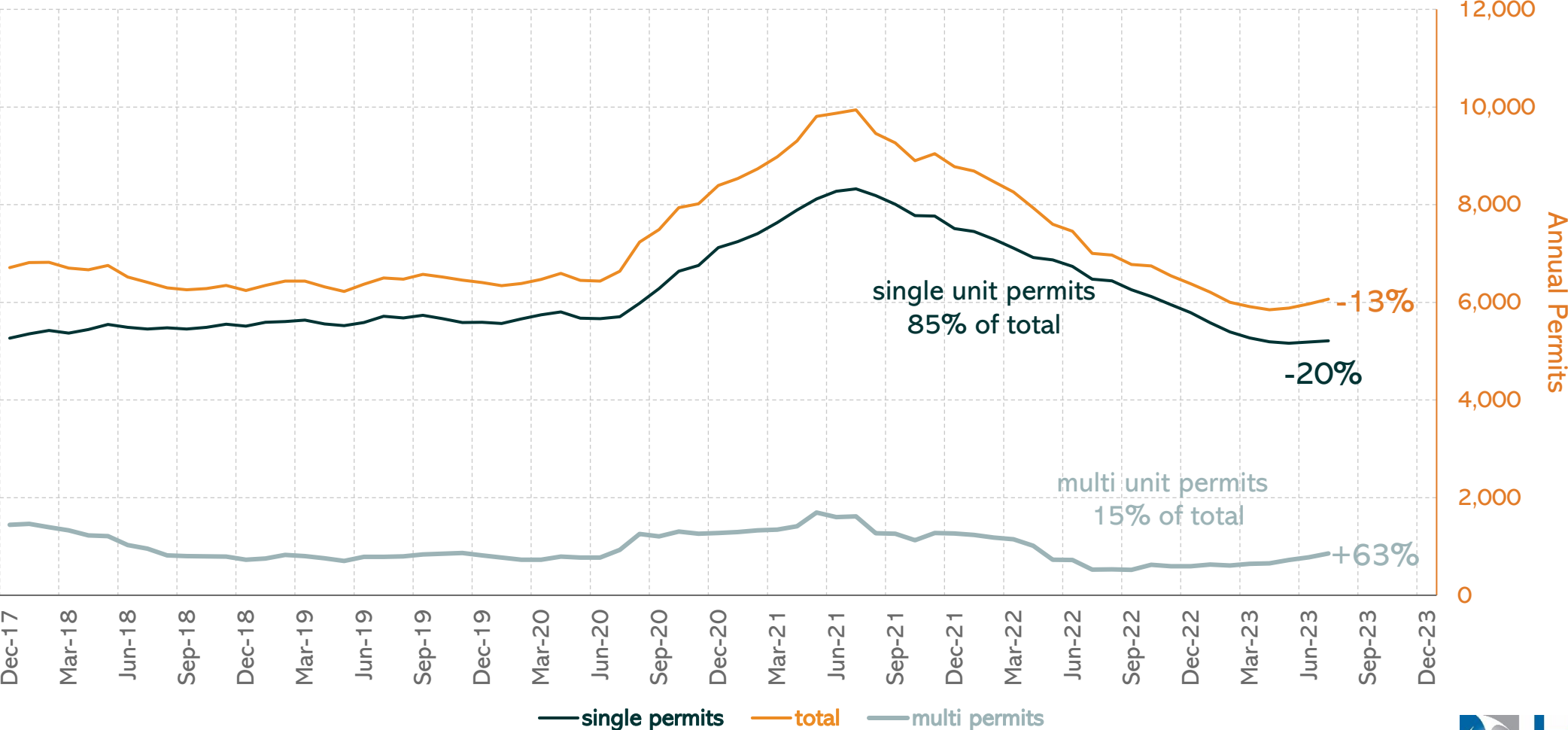
Housing Permits



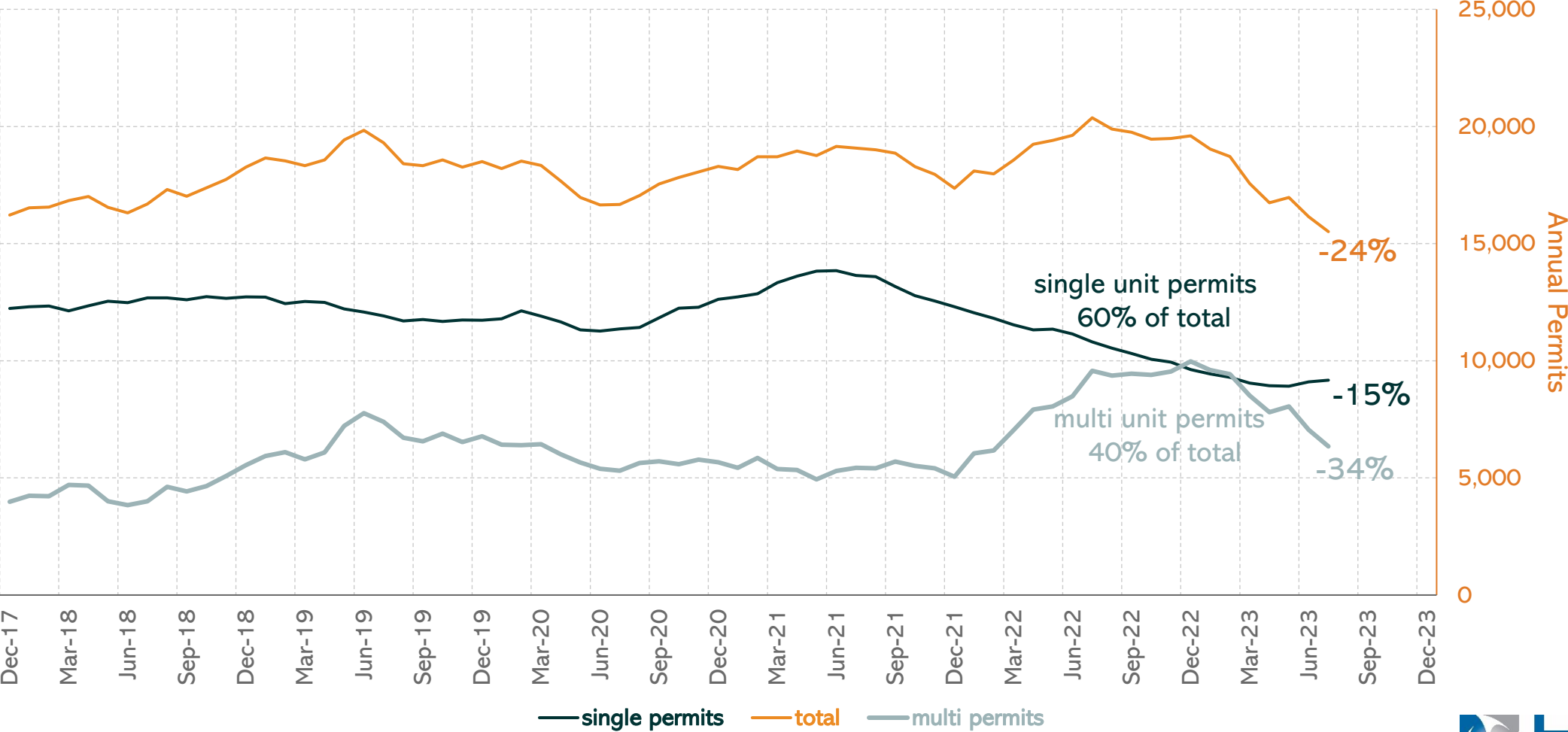
Pennsylvania Housing Permits



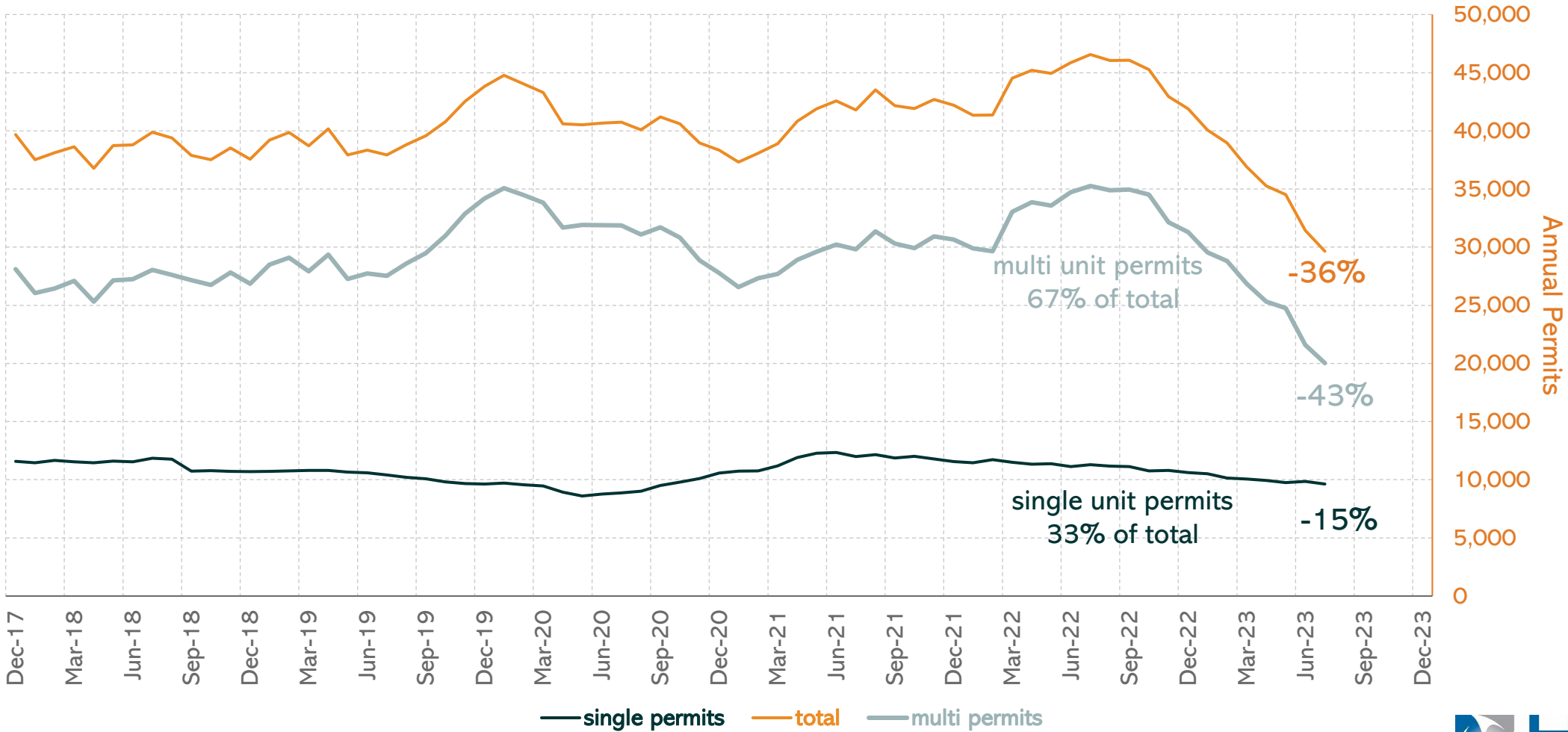
Delaware Housing Permits



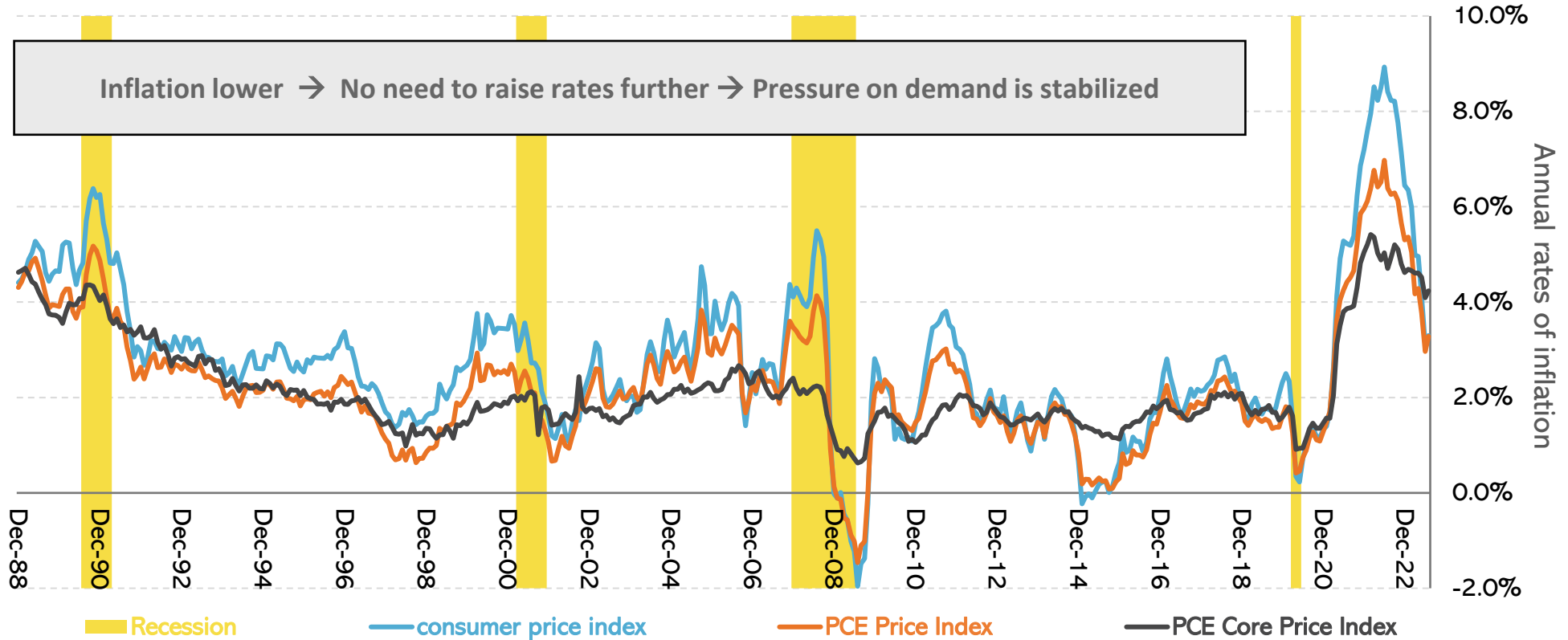
Maryland Housing Permits



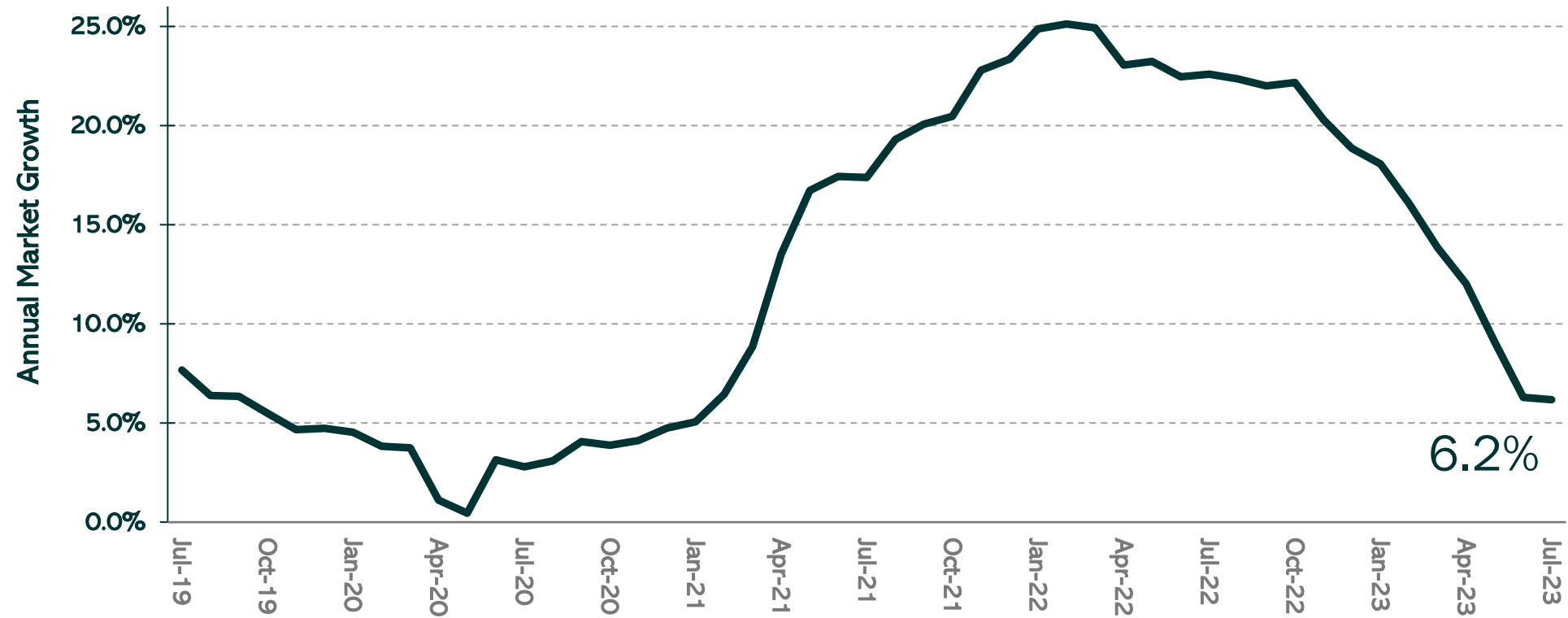
New York Housing Permits



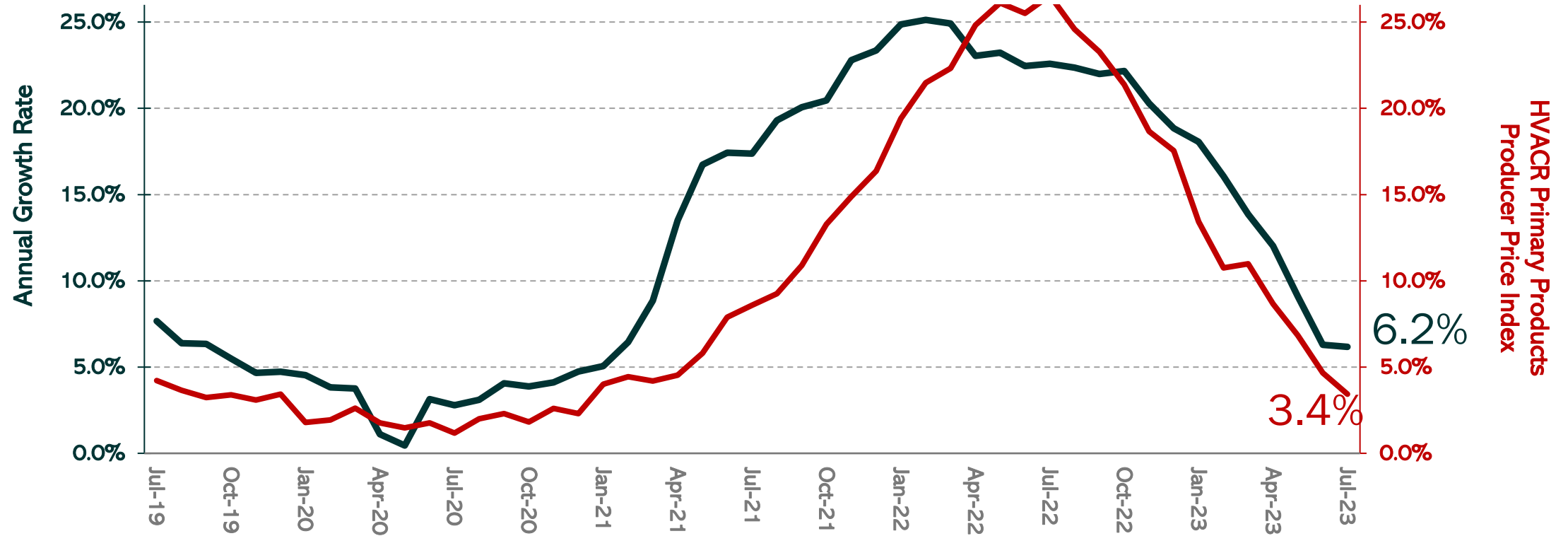
Inflation is Improving



HARDI Distributor's Annual Sales Growth

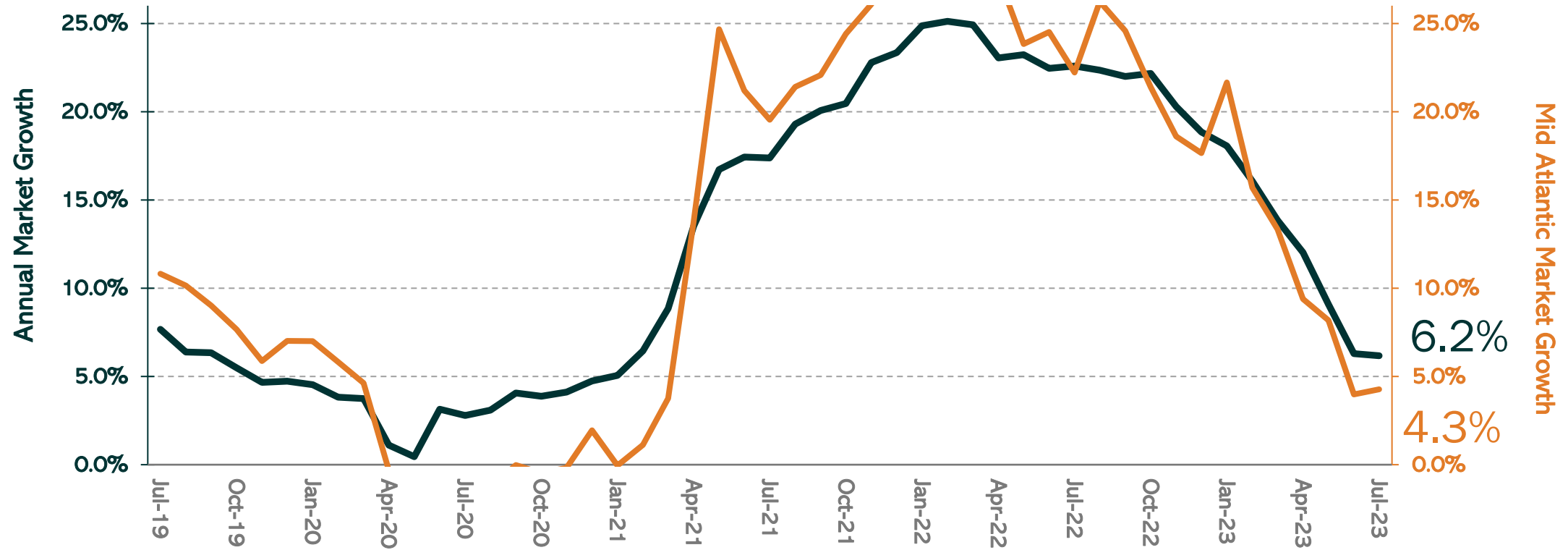


TRENDS + PPI → Normalization

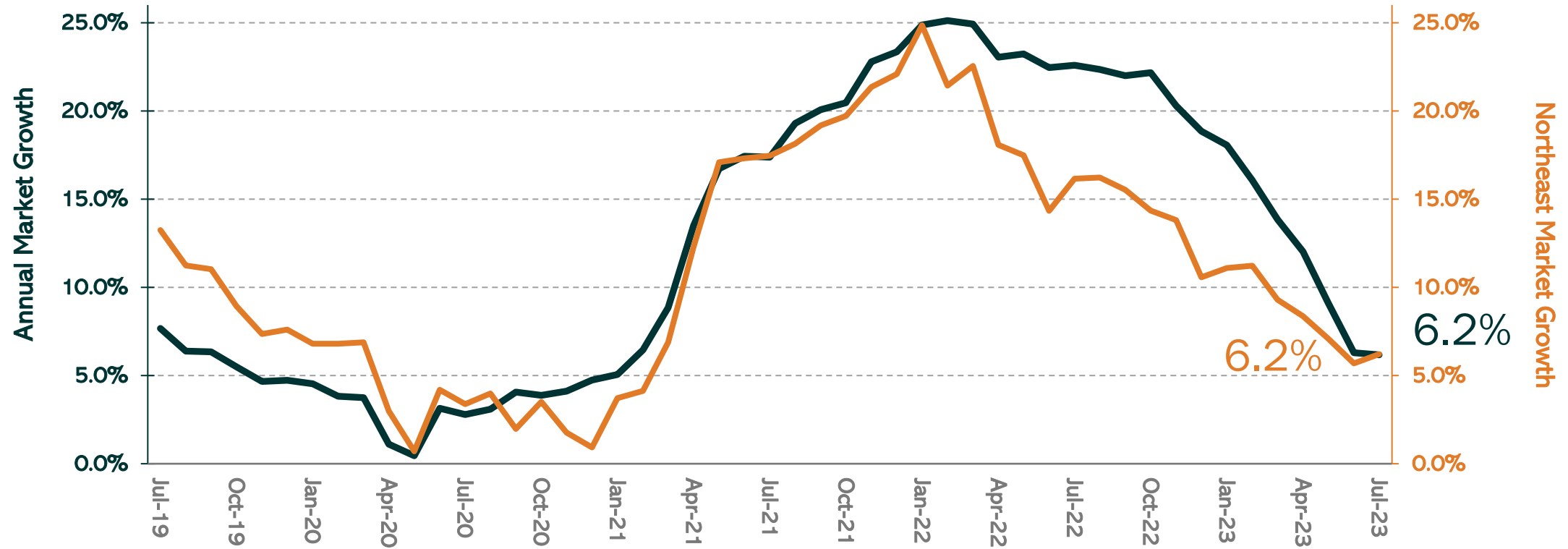


Source: U.S. Bureau of Labor Statistics, Producer Price Index by Industry: Air-Conditioning, Refrigeration, and Forced Air Heating Equipment Manufacturing: Primary Products [PCU333415333415P], retrieved from FRED; HARDI

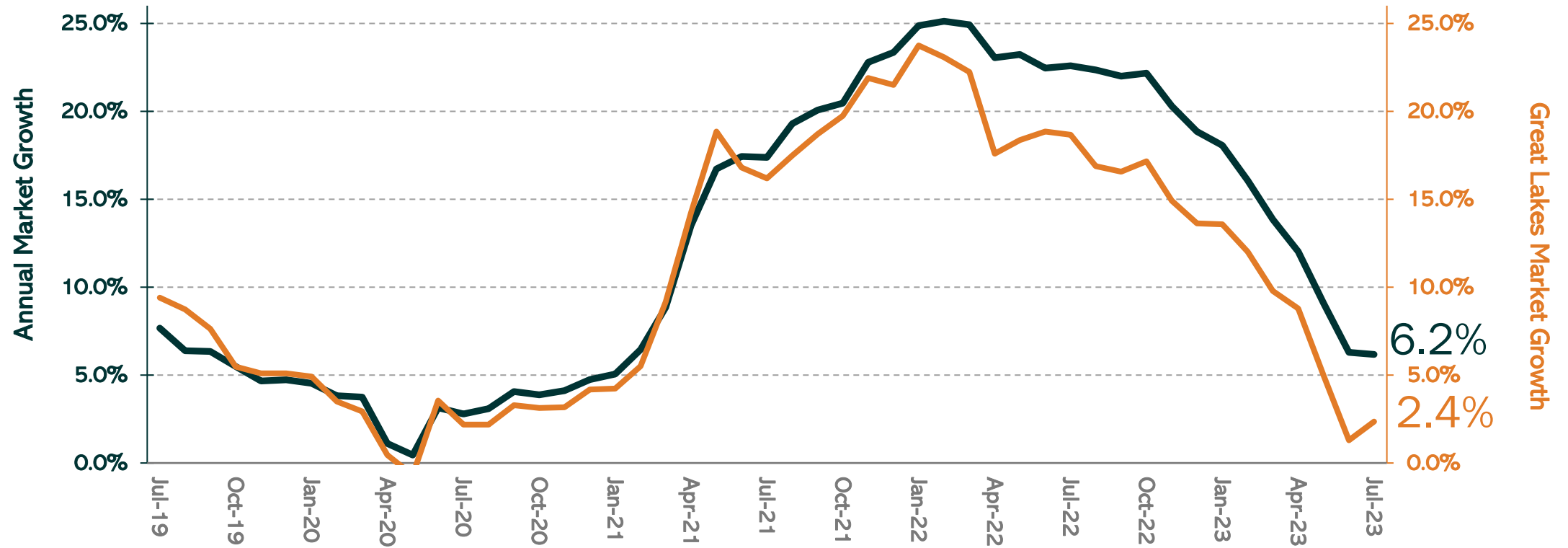
TRENDS + Mid Atlantic Region



TRENDS + Northeast Region



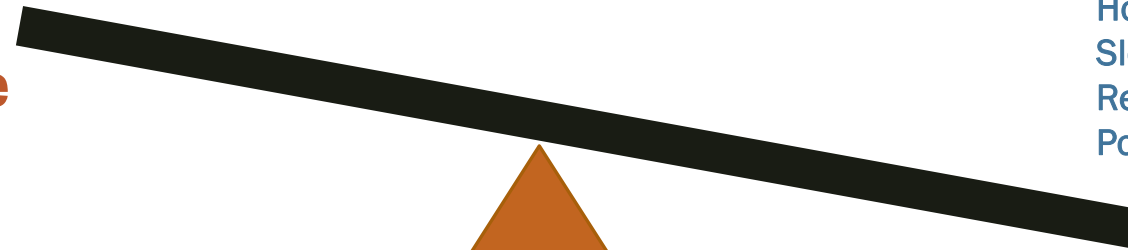
TRENDS + Great Lakes Region



Repair More Popular than Replace

Low interest rates
Home values increasing
Existing home sales active/increasing
New construction activity increasing
Strong job market
Improving consumer sentiment

Replace

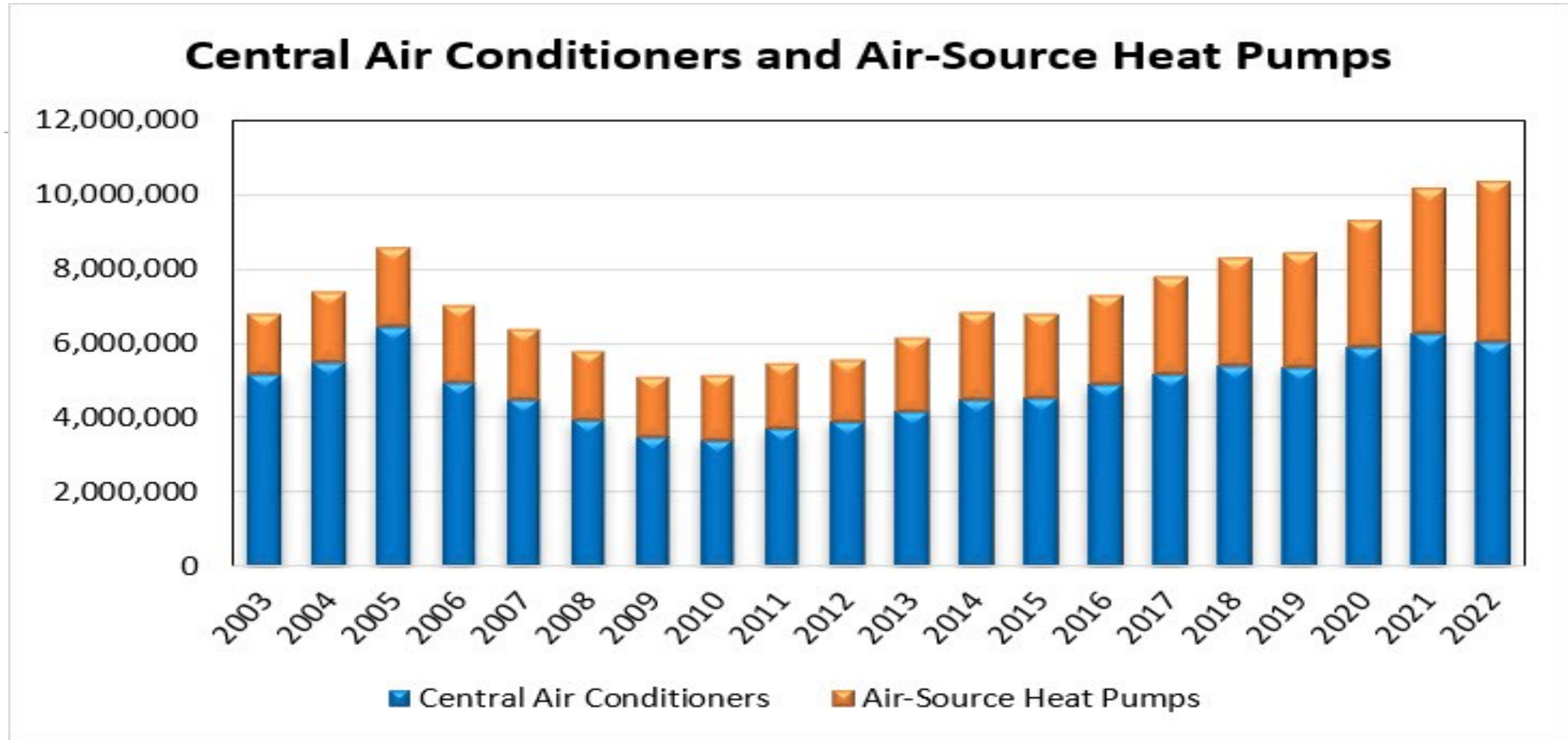


Resi Demand

Interest rates increasing
Home values flat/down
Slow existing home sales
Resi permit growth flat/down
Poor consumer sentiment

Repair

Annual Unitary Shipments

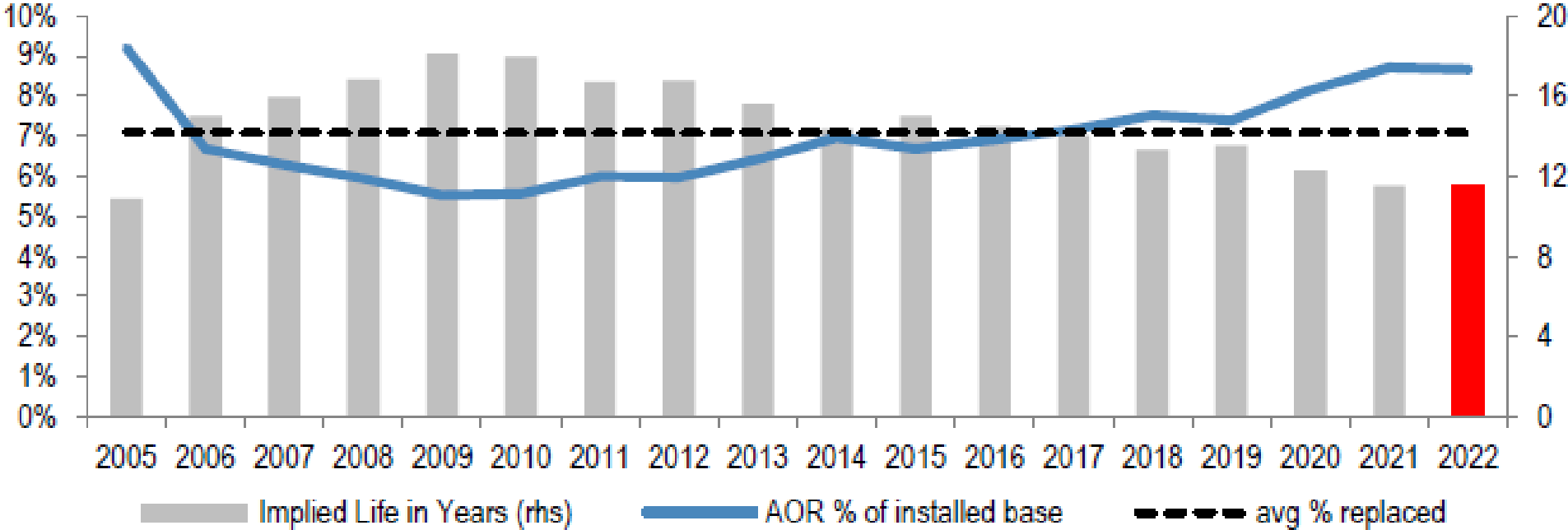


	Central Air Conditioners	Air-Source Heat Pumps	Total
2003	5,180,897	1,626,365	6,807,262
2004	5,514,967	1,886,100	7,401,067
2005	6,470,976	2,136,525	8,607,501
2006	4,950,827	2,118,469	7,069,296
2007	4,507,692	1,898,905	6,406,597
2008	3,968,044	1,865,310	5,833,354
2009	3,515,648	1,642,064	5,157,712
2010	3,419,290	1,747,920	5,167,210
2011	3,744,691	1,765,002	5,509,693
2012	3,915,869	1,697,796	5,613,665
2013	4,201,068	1,968,632	6,169,700
2014	4,499,660	2,353,990	6,853,650
2015	4,545,876	2,269,196	6,815,072
2016	4,900,992	2,429,867	7,330,859
2017	5,185,747	2,619,782	7,805,529
2018	5,395,913	2,920,080	8,315,993
2019	5,359,775	3,110,888	8,470,663
2020	5,910,284	3,418,478	9,328,762
2021	6,282,285	3,916,766	10,199,051
2022	6,053,575	4,334,479	10,388,054

Demand was Pulled Forward

Figure 18: Implied Life Now At Levels Last Seen At 2005 Pre-Buy

Replacement rate % of installed base



Source: AHRI, and J.P. Morgan estimates.

2023 and 2024 are Adjustment Years

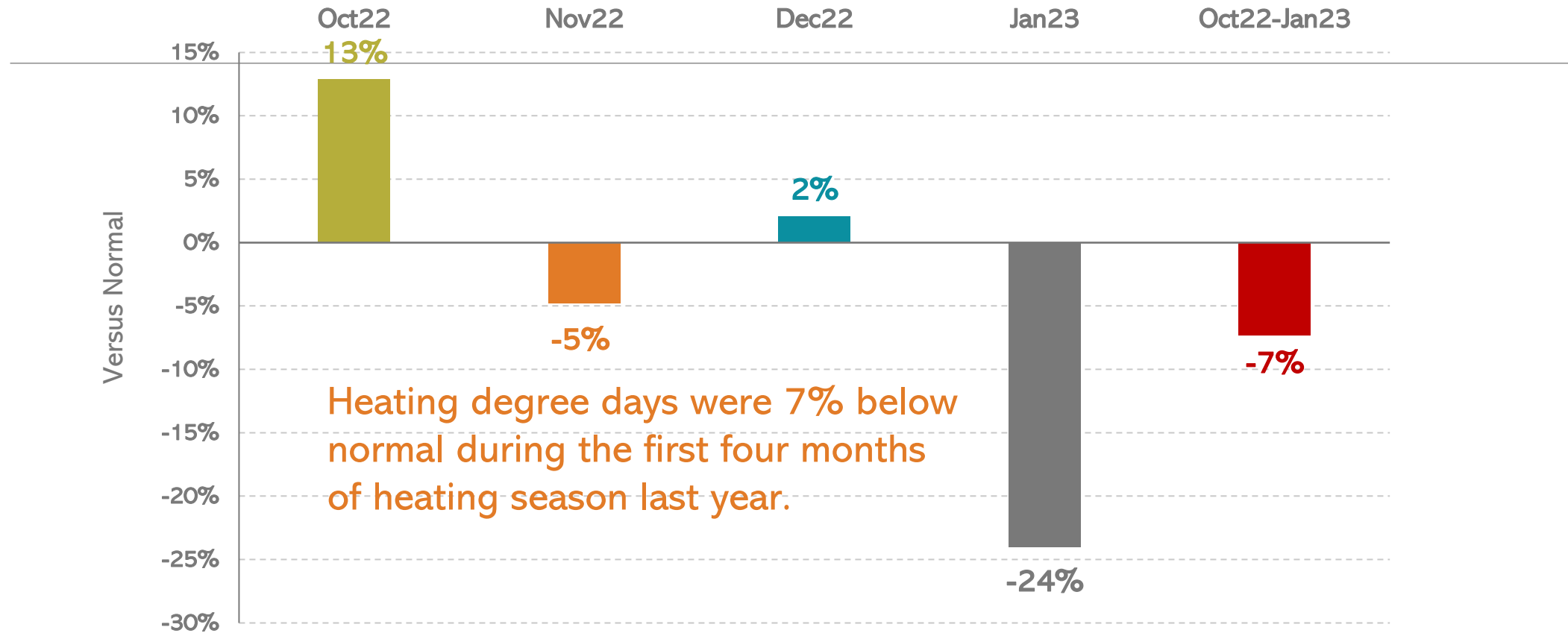
Table 17: Simplistic View Of Replacement Demand Shows Potential For Material Declines In Years Ahead...

Units

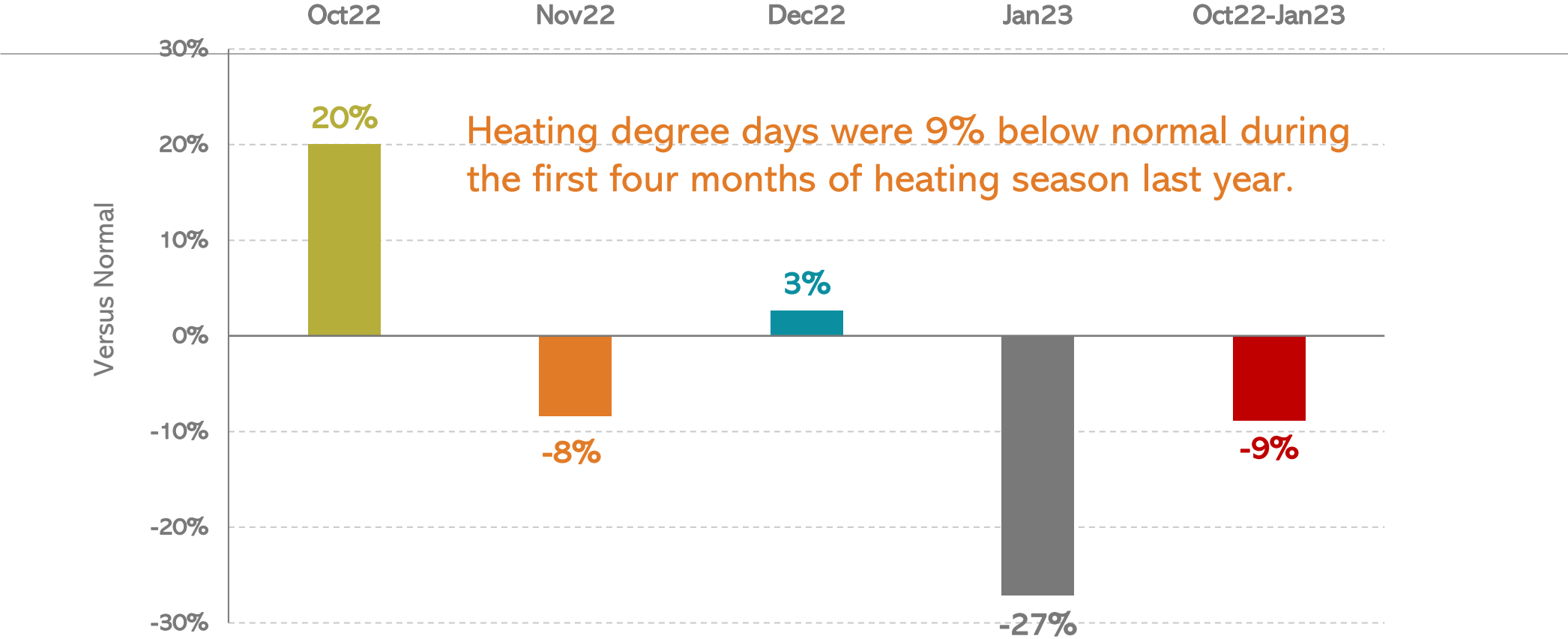
	Shipments 15					
	Years Ago	Actual Replacement	Diff	Housing	Total	
2016	6,004,751	5,907,449	(97,302)	1,129,347		
2017	6,488,396	6,264,998	(223,398)	1,230,327		
2018	6,549,179	6,741,289	192,110	1,279,088		
2019	7,132,026	6,803,393	(328,633)	1,357,749		
2020	8,324,816	7,670,320	(654,496)	1,396,047		
2021	6,766,864	8,441,295	1,674,431	1,472,833		
2022	6,088,311	8,572,393	2,484,082	1,533,139	10,105,532	
			3,046,794			
		Should Be	y/y			y/y
2023E	5,526,657	5,276,657	-38%	1,451,044	6,727,701	-33%
2024E	4,945,777	4,246,578	-20%	1,414,906	5,661,485	-16%
2025E	4,959,289	4,260,090	0%	1,466,340	5,726,430	1%
2026E	5,272,801	4,573,602	7%	1,510,330	6,083,932	6%
2027E	5,367,837	4,668,638	2%	1,555,640	6,224,278	2%

Source: AHRI and JPM estimates.

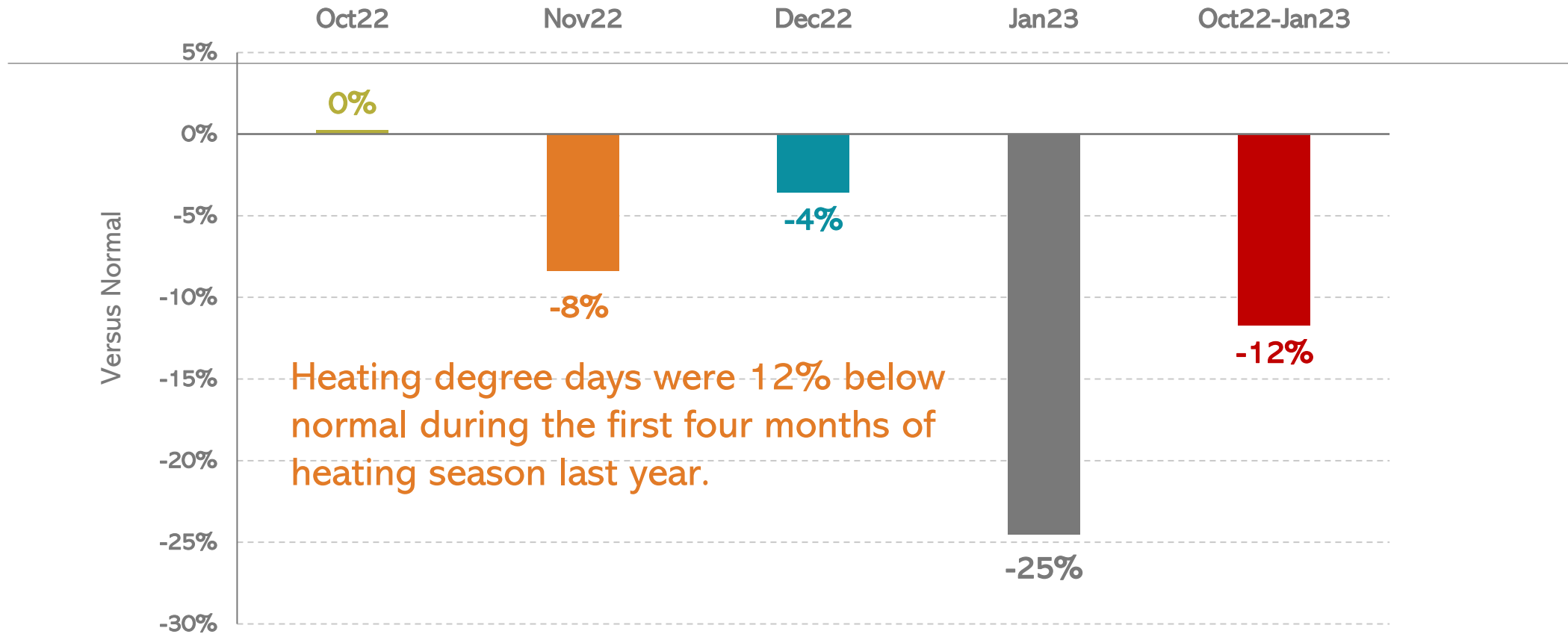
PA 2023 Heating Degree Days vs Normal



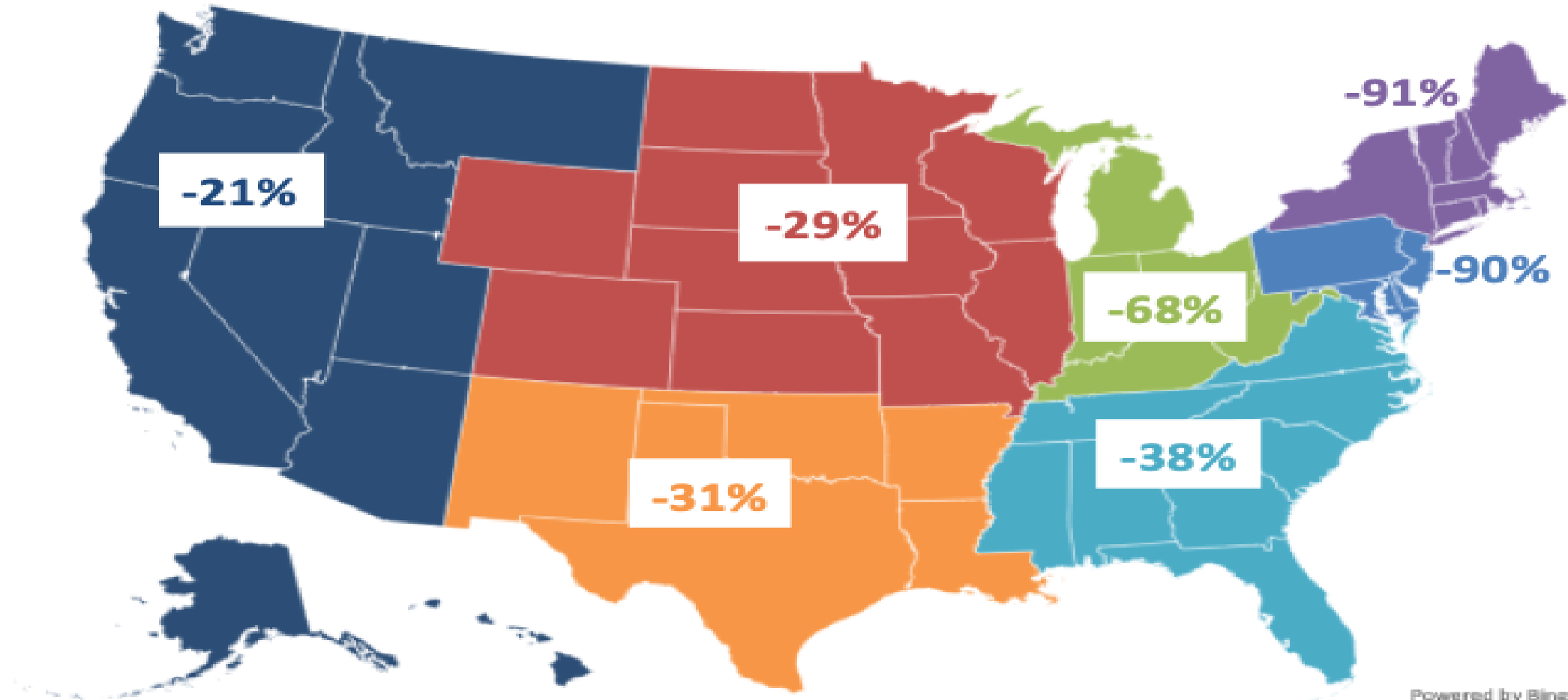
MD 2023 Heating Degree Days vs Normal



NY 2023 Heating Degree Days vs Normal

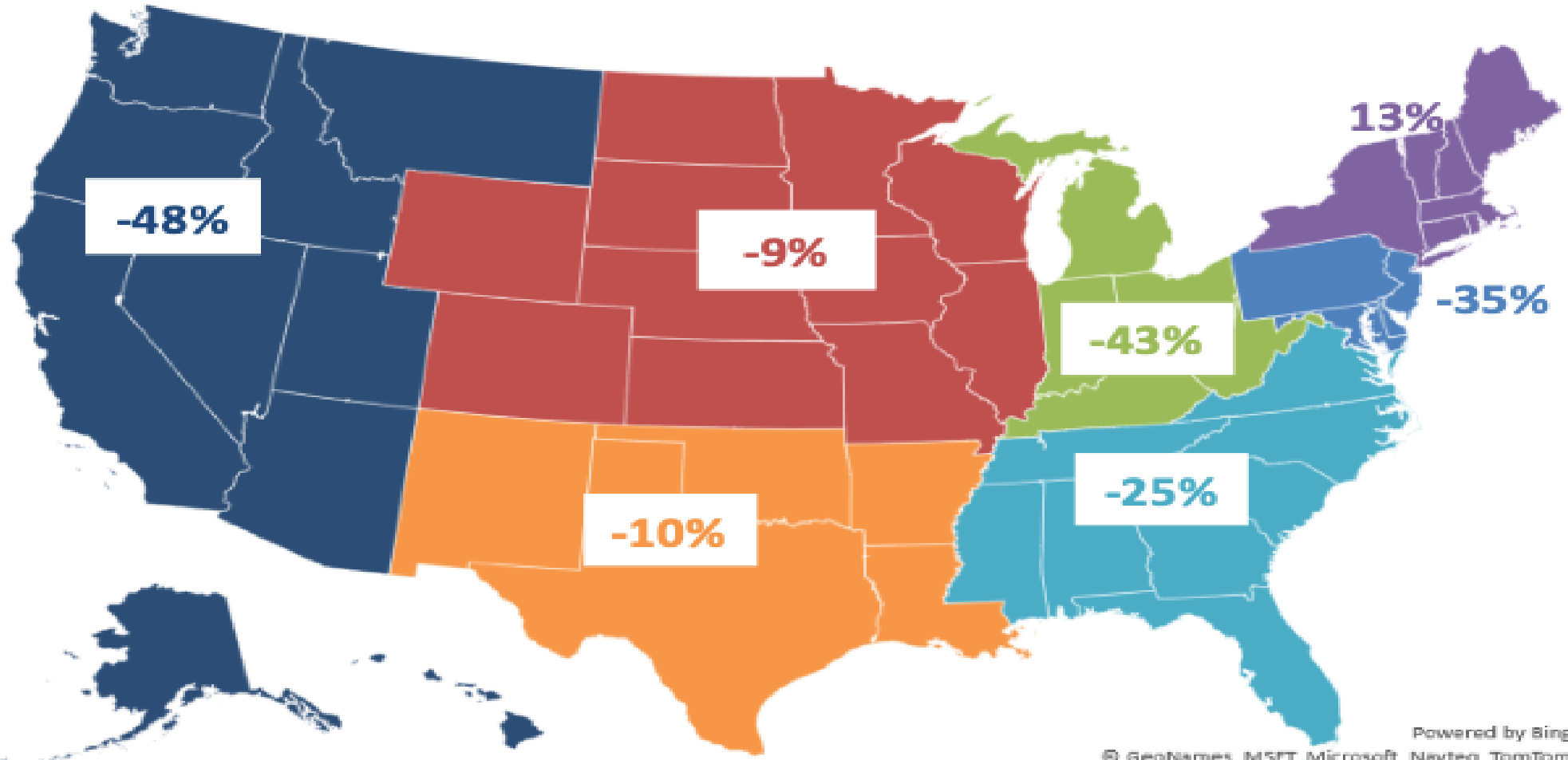


May 2023 Cooling Degree Days Versus May 2022



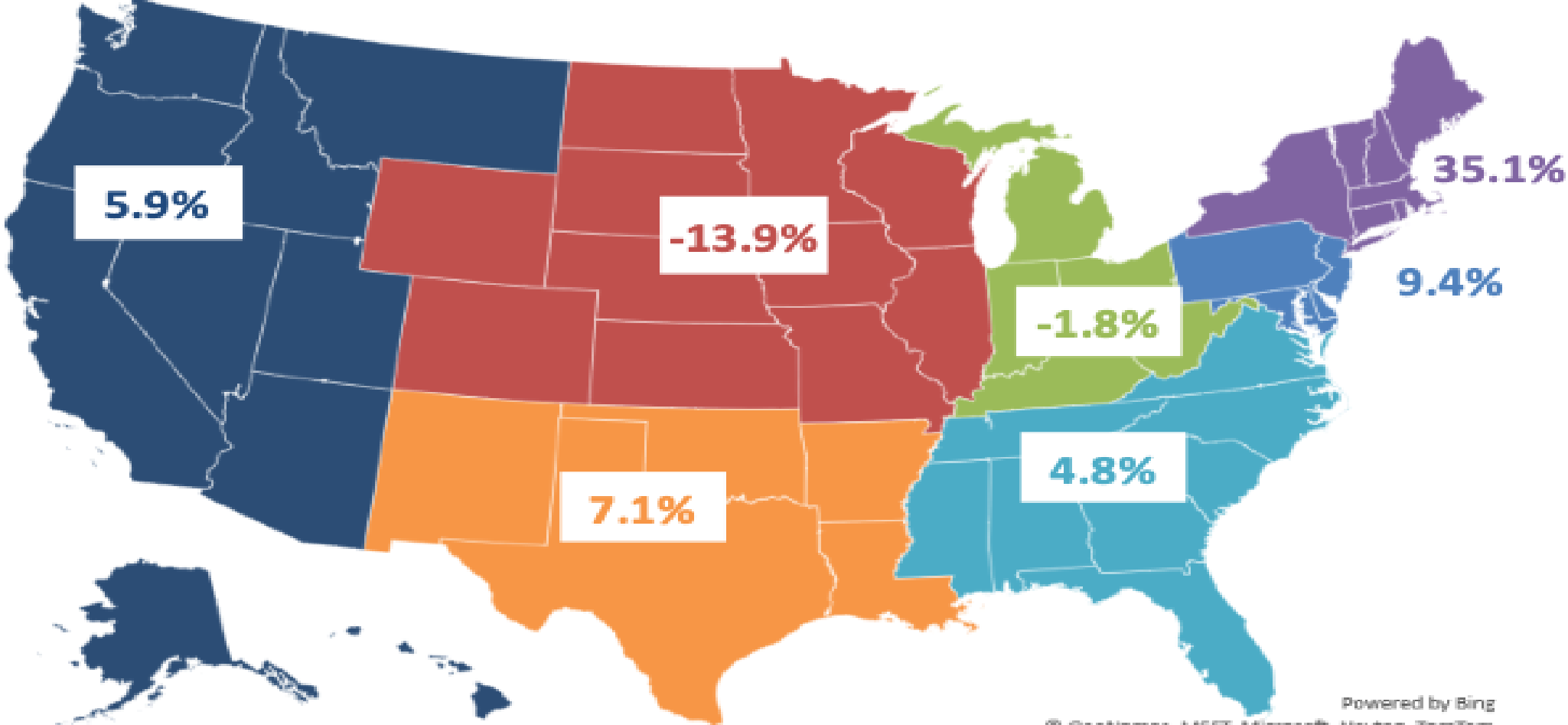
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June 2023 Cooling Degree Days Versus June 2022



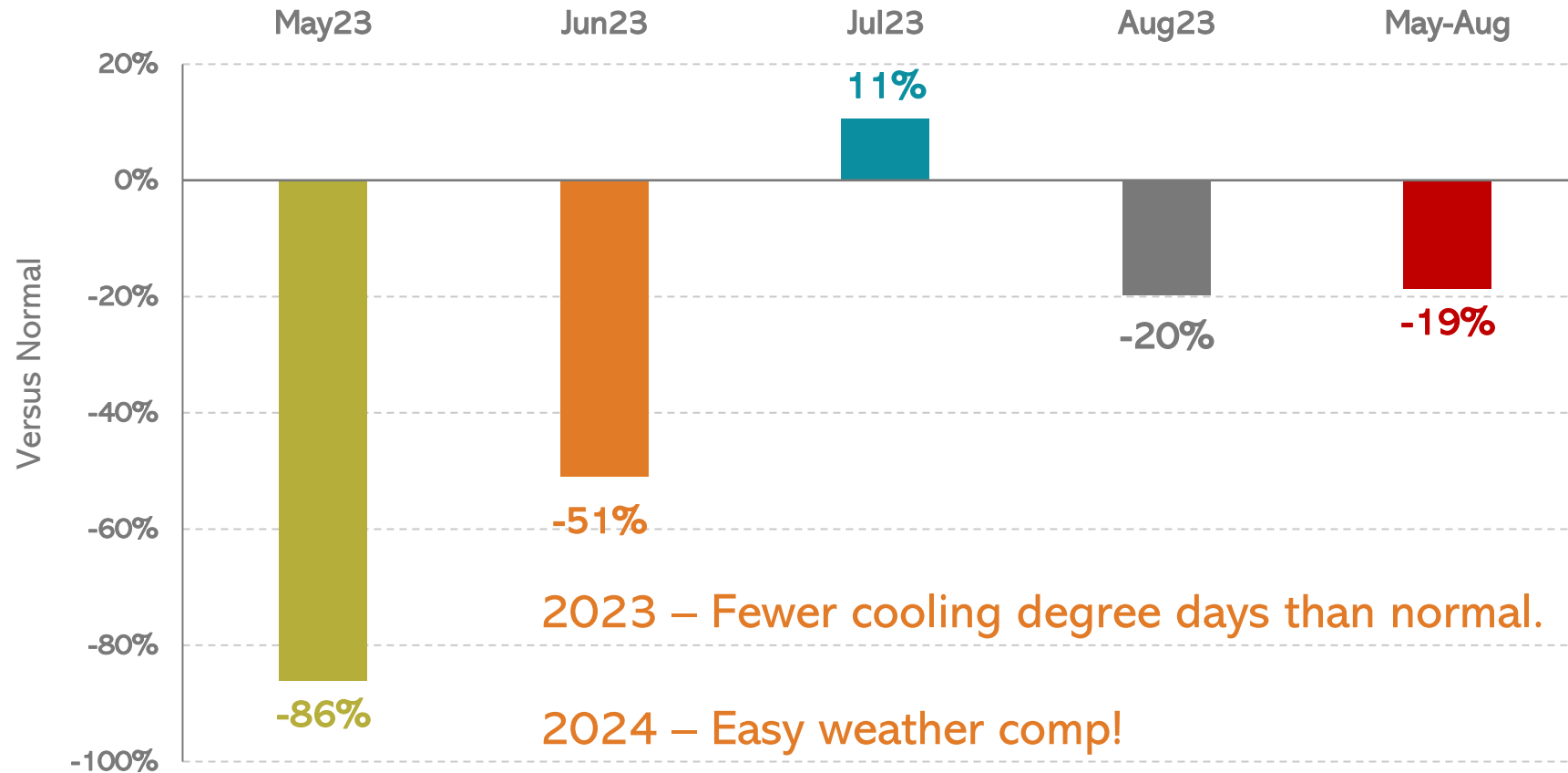
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July 2023 Cooling Degree Days Versus Normal

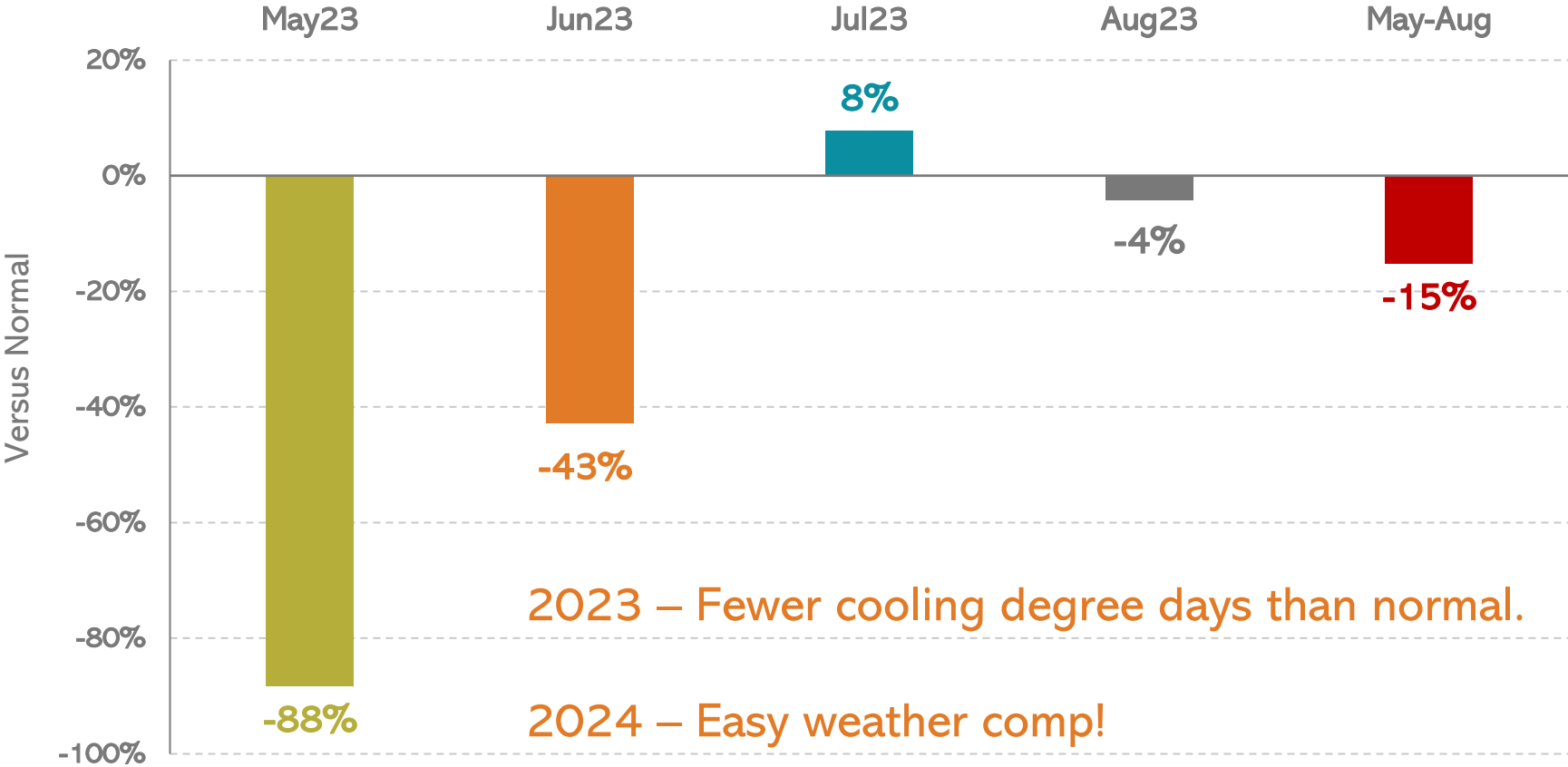


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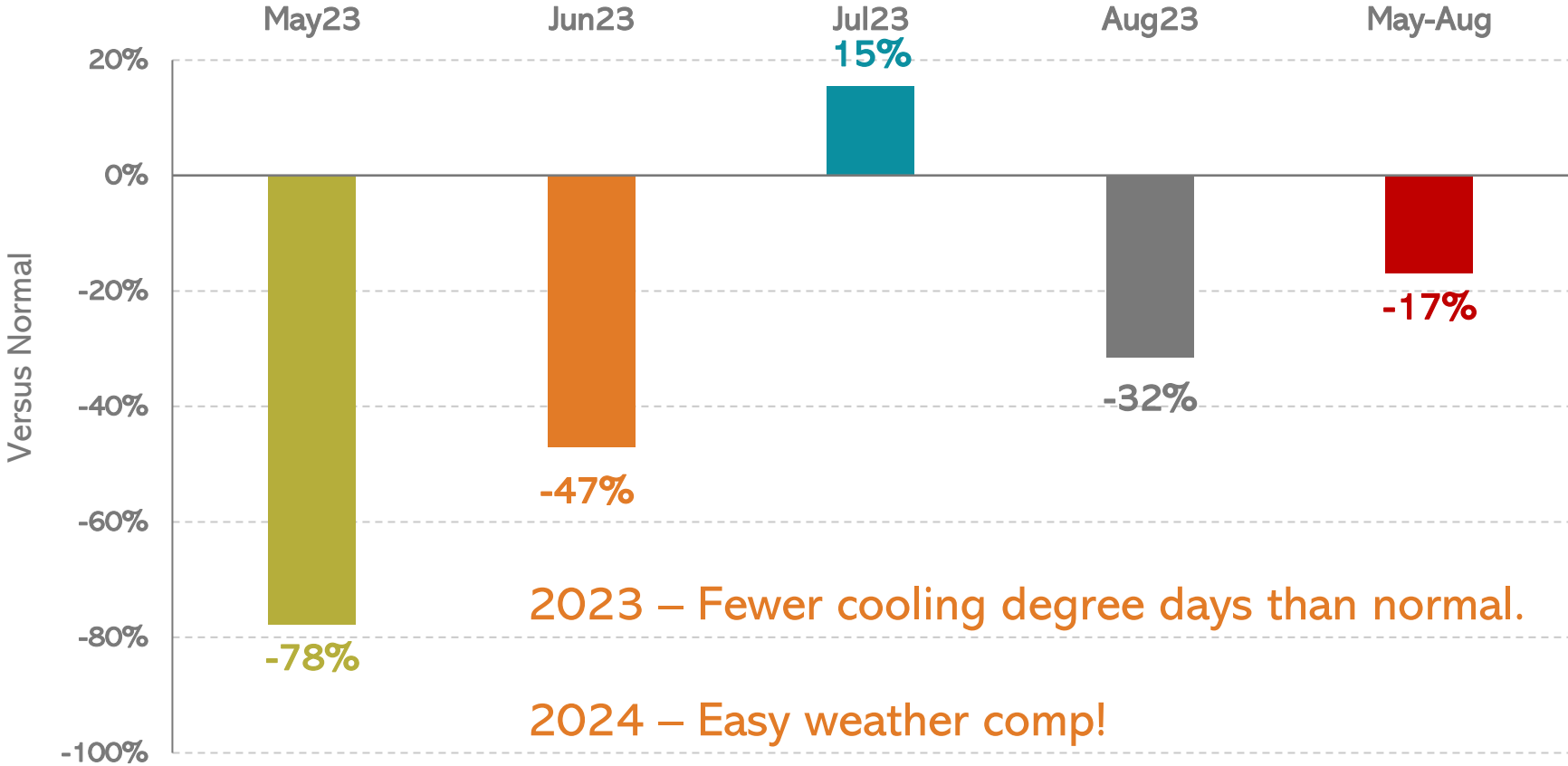
PA 2023 Cooling Degree Days vs Normal



MD 2023 Cooling Degree Days vs Normal



NY 2023 Cooling Degree Days vs Normal



2024 Opportunity

- Seasonally Normal Weather this heating season will be helpful for furnace sales
- Seasonally Normal Weather next spring and summer will be helpful for cooling sales
- We had a heating and a cooling season that did not overly tax systems – many limped through
- There are still many older systems that need replaced!

Replacement Market Potential

- Our primary focus is the replacement market
 - 80-85% of the units sold annually go to the replacement market
 - Higher Efficiency Equipment is sold vs new construction
 - Utilizing Financing can assist with sell up and add on IAQ and Zoning
- In a mature market all manufacturers focus on and measure market share
 - Will present the best guess estimates of market potential
 - We can work with you to help you grow your share
 - Using the HARDI / Census data we can guesstimate number of potential units per year

Replacement Market Potential: How We Got the Market Dollar Estimates

Cross-compare AHRI shipments with Census Bureau Information

- Replacement rate for AC/ASHP is ~7% nationally
- Only accounts for residential product replacement
- Homes include multi-family

Assume 1 unit per home

- Some homes have multiple units
- Some homes have no AC or utilize other sources

Market potential calculation =
All Homes * .07 * \$3,450 (at distributor sell price)



Why Market Share Matters

For You:

- Do you realize the market potential of the areas you service?
- Are you doing everything you can to capture your share of business in your market(s)?
- Are you getting your fair share?

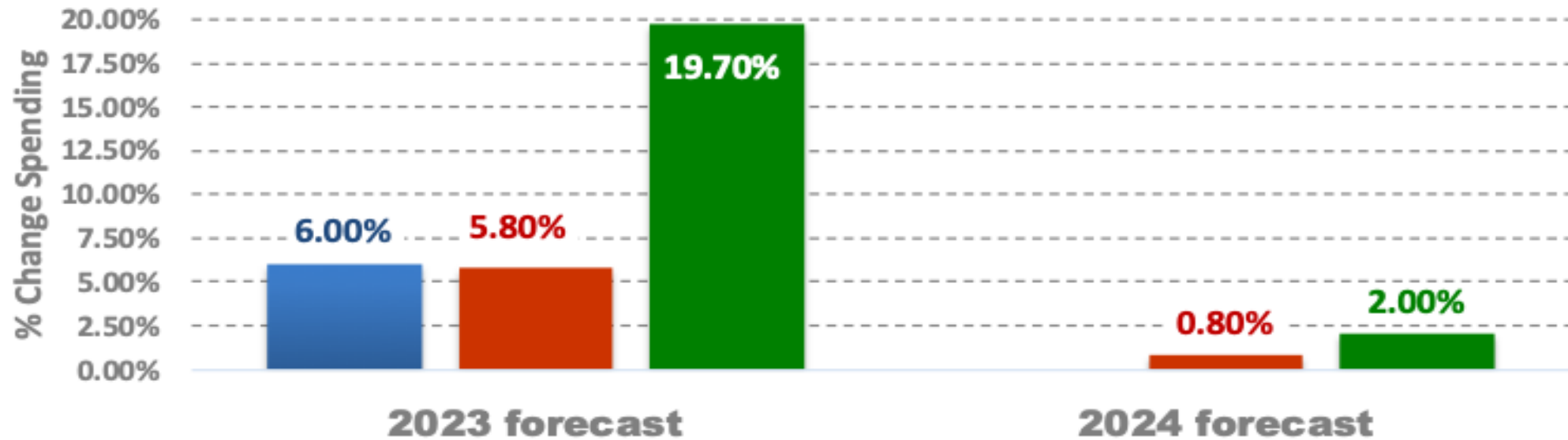
For Us:

- We are measured on market share attainment
- Knowing market potential enables realistic goal setting

Commercial Growth in 2024

Non-Residential Construction Forecast

The American Institute of Architects



HARDI

■ Jul22 Survey

■ Jan23 Survey

■ Jul23 Survey

source: www.aia.org

What Does All This Stuff Mean?

- 2023/24 Will Continue to be Challenging as We Battle the Economic Head Winds
-
- The Consumer will continue to be challenged by inflation
 - The Sales of Existing Homes will remain muted until interest rates decrease
 - The Fed's interest rate moves will cause a 'mild' recession in 2024
 - The unemployment rate will need to rise to allow the Fed to stop raising rates
 - There are favorable weather comparatives for the heating season
 - We should have favorable weather comparatives for the start of cooling season in 2024
 - Our industry is large, fragmented with lots of opportunity to gain share residentially and commercially
 - We have to SELL!
 - Commercial markets should continue to be strong through Q2/Q3 2024