

The Virginia Tech–USDA Forest Service Housing Commentary: Section I

April 2023



Delton Alderman

Acting Program Manager
Forest Products Business Unit
Forest Products Laboratory
USDA Forest Service



Madison, WI
608.259.6076



delton.r.alderman@usda.gov

Urs Buehlmann

Department of Sustainable
Biomaterials
College of Natural Resources &
Environment
Virginia Tech
Blacksburg, VA
540.231.9759
buehlmann@gmail.com

2023

Virginia Polytechnic Institute and State University

VCE-ANR

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Jewel E. Hairston, Administrator, 1890 Extension Program, Virginia State, Petersburg.

Table of Contents

Slide 3: <u>Opening Remarks</u>	Slide 43: <u>Region SF House Sales & Price</u>
Slide 4: <u>Housing Scorecard</u>	Slide 47: <u>New SF House Sales x Category</u>
Slide 5: <u>New Housing Starts</u>	Slide 49: <u>New SF Sales-Population Ratio</u>
Slide 12: <u>Regional Housing Starts</u>	Slide 61: <u>Construction Spending</u>
Slide 18: <u>New Housing Permits</u>	Slide 64: <u>Construction Spending Shares</u>
Slide 20: <u>Regional New Housing Permits</u>	Slide 67: <u>Remodeling</u>
Slide 25: <u>Housing Under Construction</u>	Slide 74: <u>Existing House Sales</u>
Slide 28: <u>Regional Under Construction</u>	Slide 77: <u>U.S. Housing Prices & Finance</u>
Slide 32: <u>Housing Completions</u>	Slide 103: <u>Mortgage Finance & Outlook</u>
Slide 35: <u>Regional Housing Completions</u>	Slide 108: <u>Summary</u>
Slide 36: <u>New Housing Sales</u>	Slide 109: <u>Virginia Tech Disclaimer</u>
Slide 40: <u>New Single-Family House Sales</u>	Slide 110: <u>USDA Disclaimer</u>

This report is a free monthly service of Virginia Tech. Past issues are available at:

[http://woodproducts.sbio.vt.edu/housing-report.](http://woodproducts.sbio.vt.edu/housing-report)

To request the commentary, please email: buehlmann@gmail.com or delton.r.alderman@usda.gov

Opening Remarks

Year-over-year and month-over-month data were disappointing. Month-over-month data were mixed –total, single-family, and multi-family starts housing under construction, new single-family house sales, and total spending were positive. The vast majority of data were negative.

The June 15th Atlanta Fed GDPNow™ total residential investment spending forecast is a negative 2.1% for June 2023. New private permanent site expenditures were projected at -2.2%; the improvement spending forecast was -1.6%; and the manufactured/mobile home expenditures projection was -14.2% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“As we near the end of the spring home buying season, the latest [Home Purchase Sentiment Index® \(HPSI\)](#) results indicate that affordability hurdles, including high home prices and mortgage rates, remain top of mind for consumers, most of whom continue to tell us that it’s a bad time to buy a home but a good time to sell one. Consumers also indicated that they don’t expect these affordability constraints to improve in the near future, with significant majorities thinking that both home prices and mortgage rates will either increase or remain the same over the next year. Notably, the same factors impacting affordability may also be affecting the perceived ease of getting a mortgage. This was particularly true among renters: 81% believe it would be difficult to get a mortgage today, matching a survey high.” – Mark Palim, Vice President and Deputy Chief Economist, Fannie Mae

This month’s commentary contains applicable housing data, remodeling commentary, and United States housing market observations. Section I contains relevant data, remodeling, and housing finance commentary. Section II includes regional Federal Reserve analysis, private firm indicators, and demographic/economic information.

Sources: ¹ www.frbatlanta.org/cqer/research/gdpnow.aspx; 6/15/23

² <https://www.fanniemae.com/research-and-insights/surveys-indices/national-housing-survey>; 6/7/23

April 2023

Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 2.2%	▼ 22.3%
Single-Family (SF) Starts	▲ 1.6%	▼ 28.1%
Multi-Family (MF) Starts*	▲ 3.2%	▼ 11.5%
Housing Permits	▼ 1.4%	▼ 21.1%
SF Permits	▲ 3.3%	▼ 21.1%
MF Permits*	▼ 6.2%	▼ 19.4%
Housing Under Construction	▲ 0.4%	▲ 0.4%
SF Under Construction	▼ 1.4%	▼ 15.8%
Housing Completions	▼ 10.4%	▲ 1.0%
SF Completions	▼ 6.5%	▼ 5.2%
New SF House Sales	▲ 4.1%	▲ 11.8%
Private Residential Construction Spending	▲ 0.5%	▼ 9.2%
SF Construction Spending	▼ 0.8%	▼ 24.7%
Existing House Sales ¹	▼ 3.4%	▼ 23.2%

* All multi-family (2 to 4 + ≥ 5-units)

M/M = month-over-month; Y/Y = year-over-year;
NC = No change

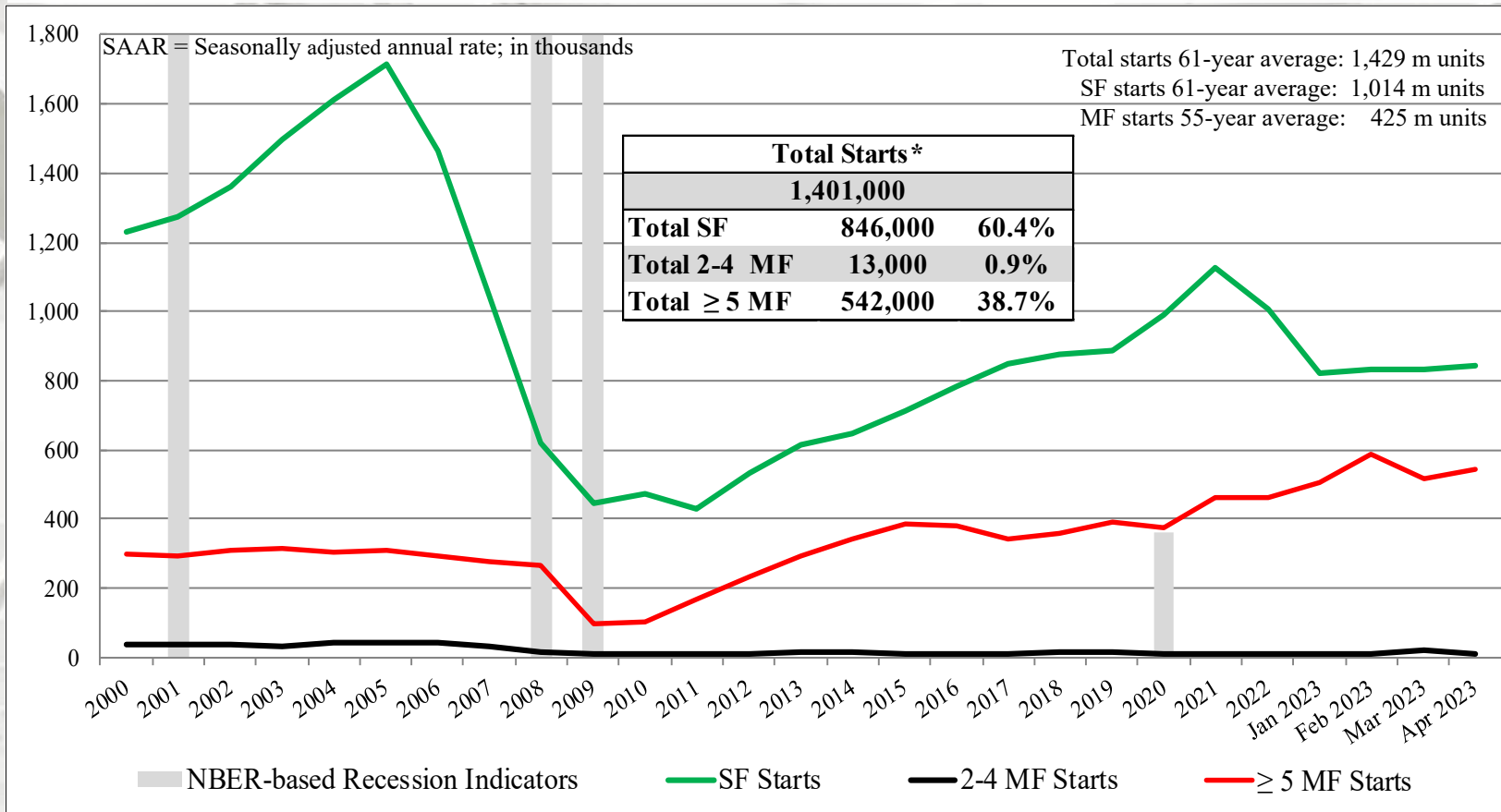
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
April	1,401,000	846,000	13,000	542,000
March	1,371,000	833,000	23,000	515,000
2022	1,803,000	1,176,000	13,000	614,000
M/M change	2.2%	1.6%	-43.5%	5.2%
Y/Y change	-22.3%	-28.1%	0.0%	-11.7%

* All start data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2 to 4 multi-family starts directly; this is an estimation
((Total starts – (SF + 5-unit MF)).

Total Housing Starts

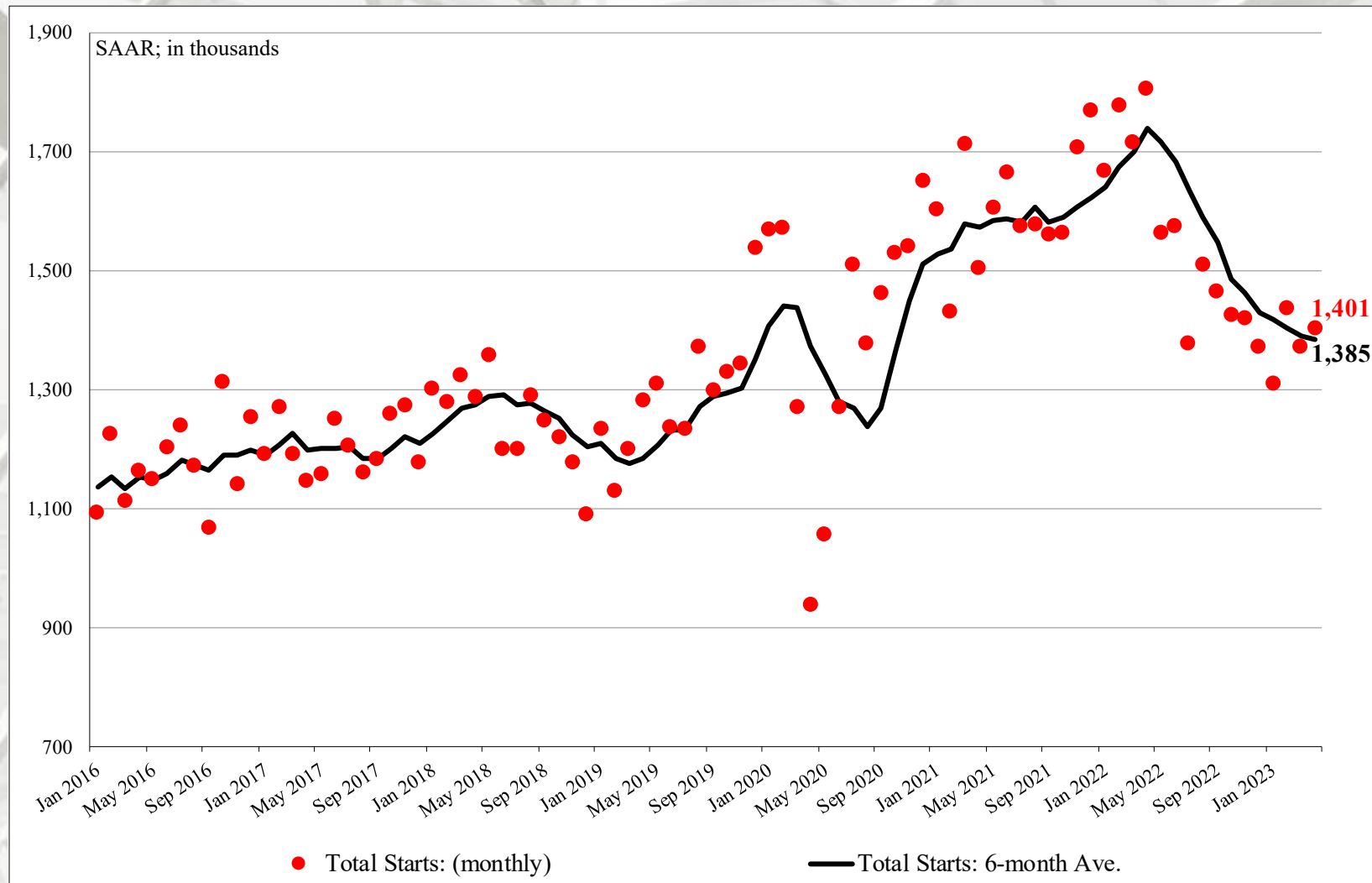


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF)).

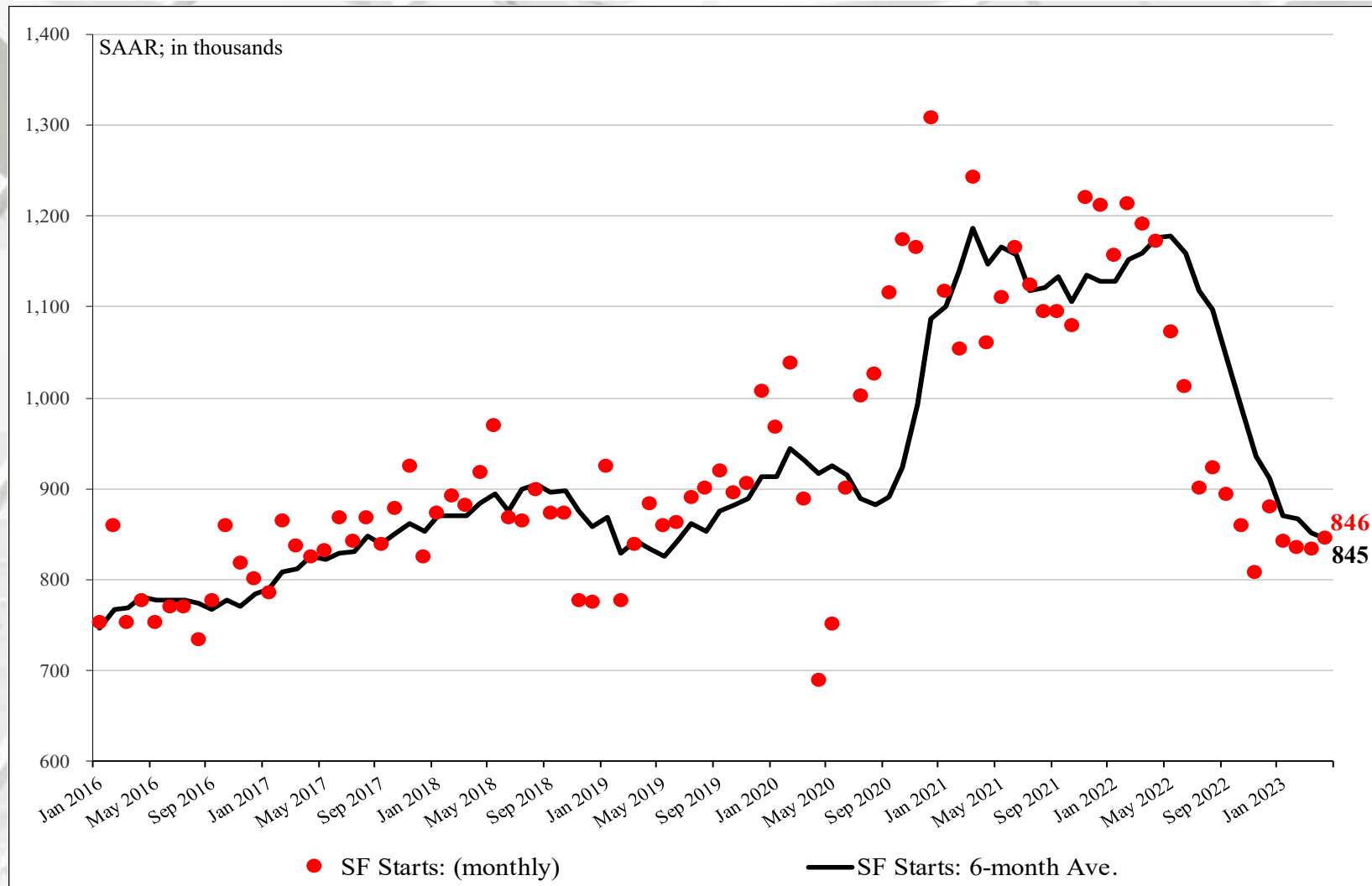
* Percentage of total starts.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

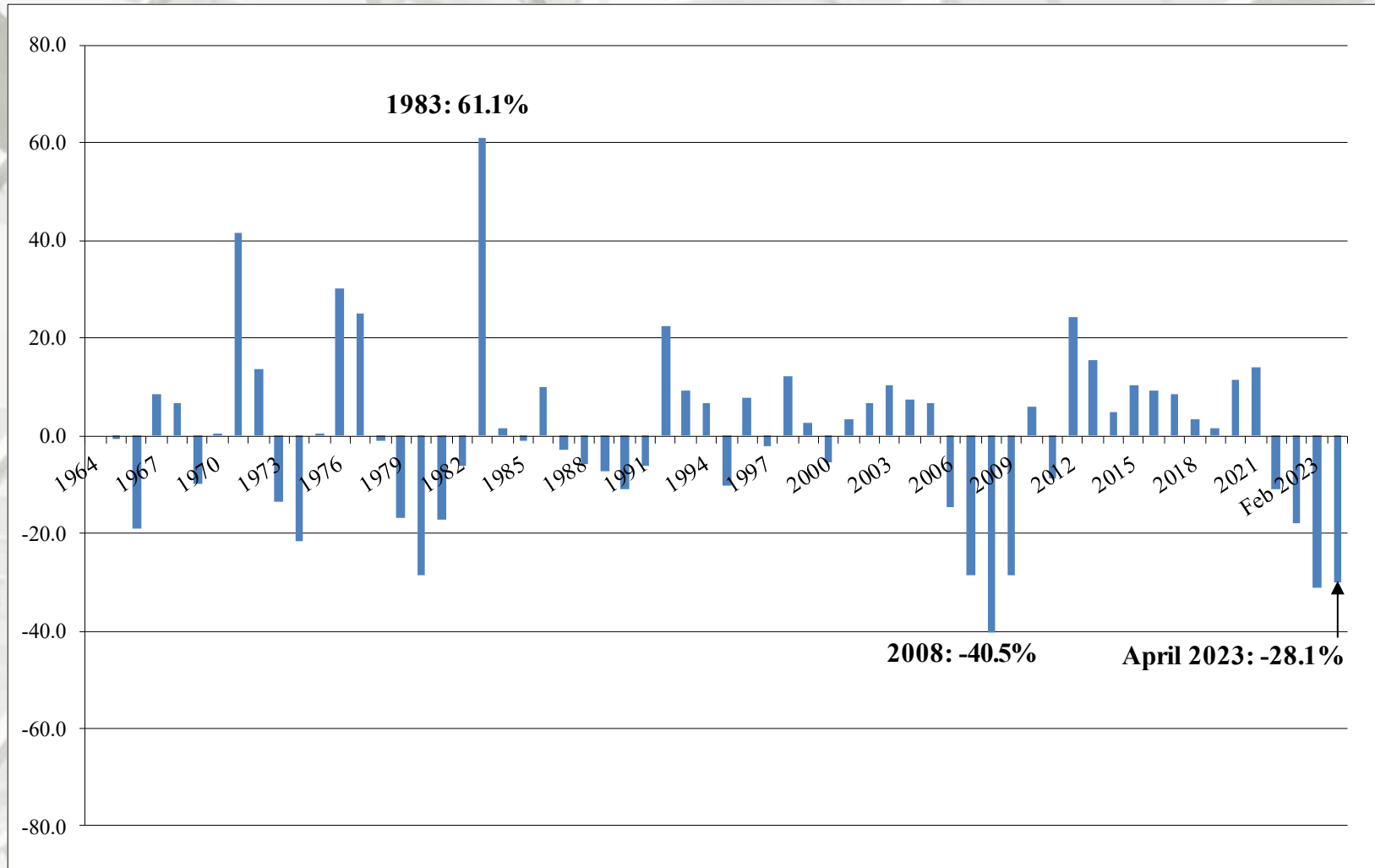
Total Housing Starts: Six-Month Moving Average



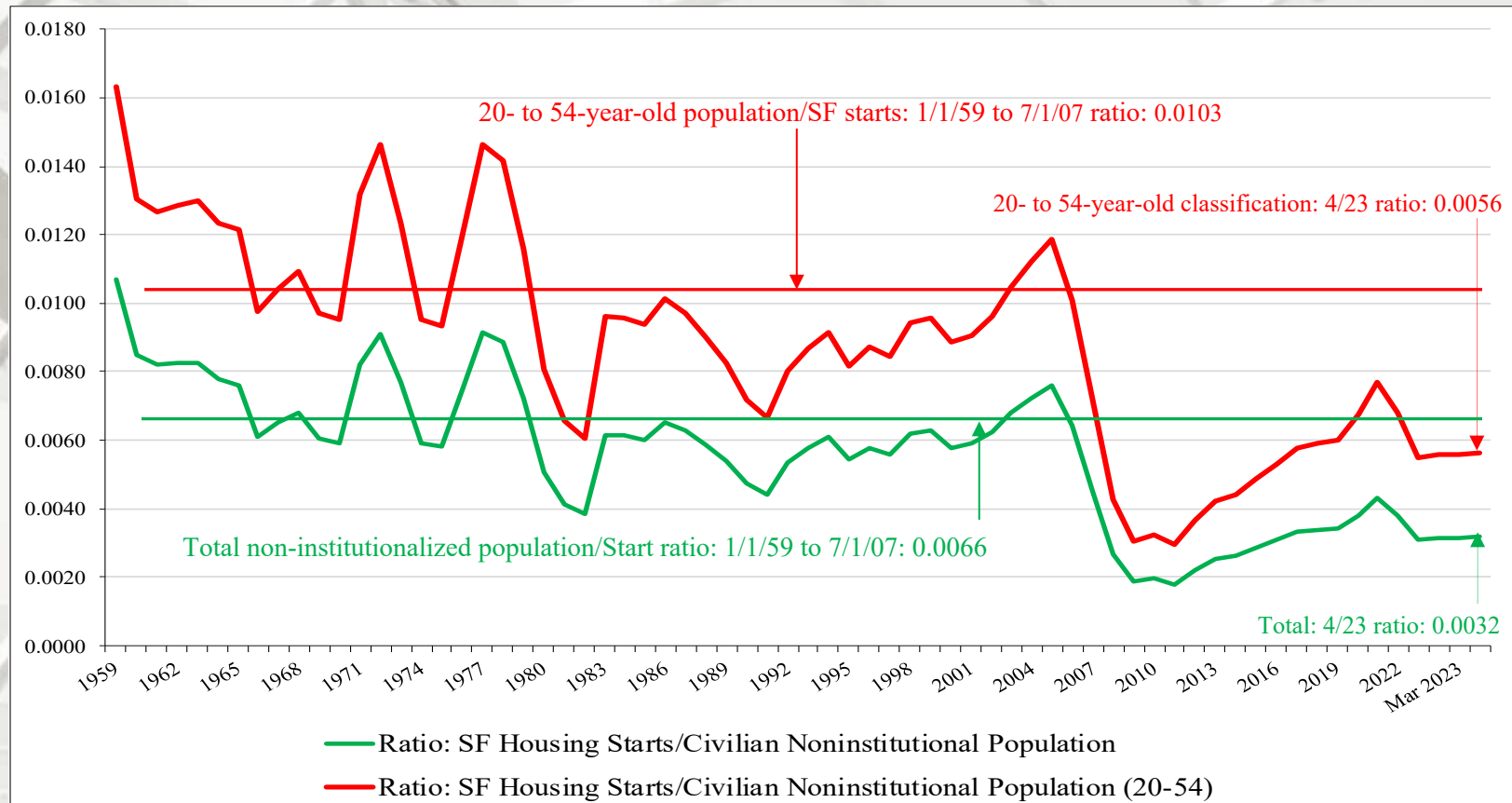
SF Housing Starts: Six-Month Moving Average



SF Housing Starts: Year-over-Year Change (%)



New SF Starts

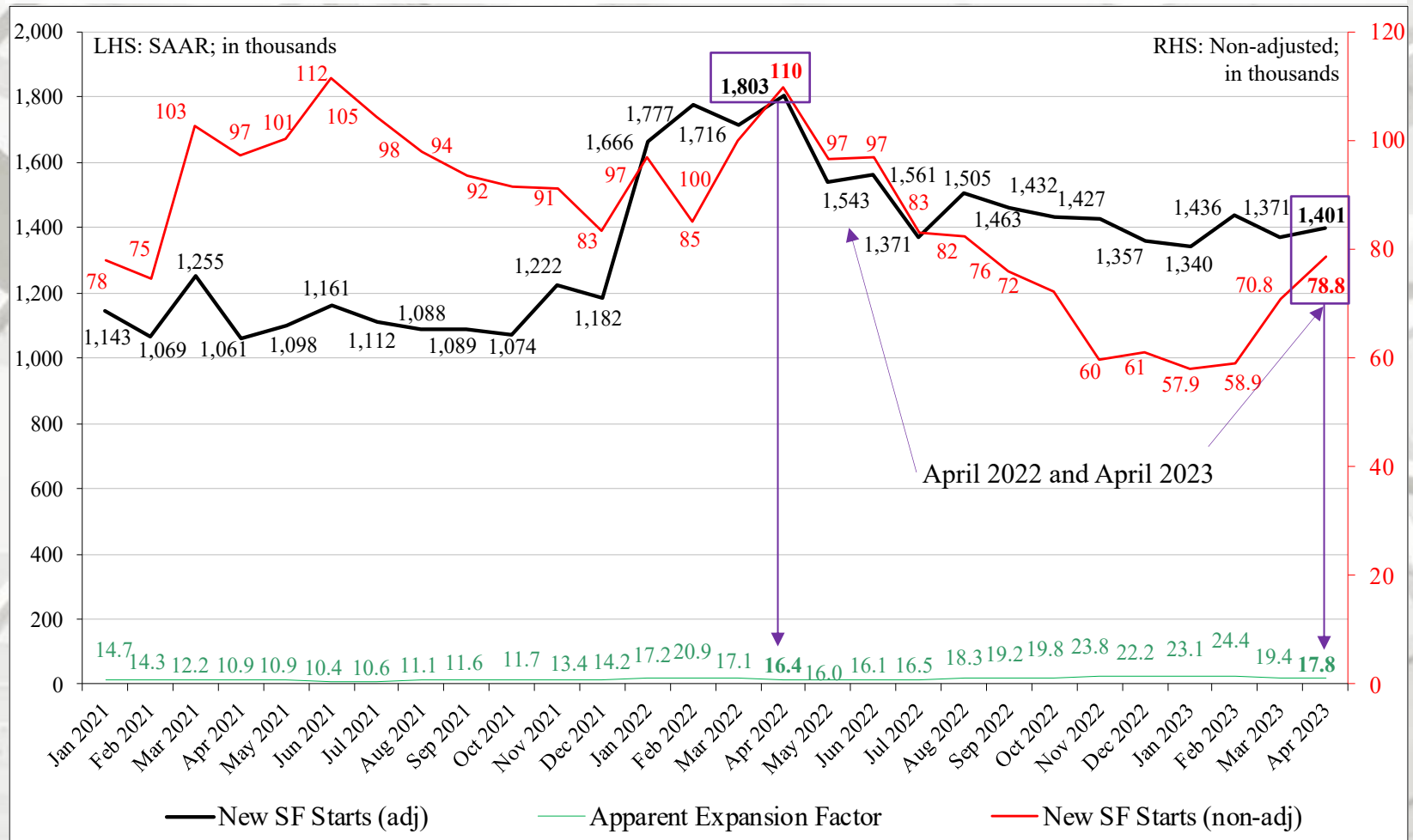


New SF starts adjusted for the US population

From January 1959 to July 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In April 2022 it was 0.0032 – a slight increase from March (0.0031). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in April 2023 it was 0.0056 – no change from March. New SF construction in both age categories is less than what is necessary for changes in the population (i.e., under-building).

Note some studies report normalized long-term demand at 900,000 to 1,000,000 new SF house starts per year – beginning in 2025 through 2050.

Nominal & SAAR SF Starts



Nominal and Adjusted New SF Monthly Starts

Presented above is nominal (non-adjusted) new SF start data contrasted against SAAR data.

The apparent expansion factor "... is the ratio of the unadjusted number of houses started in the US to the seasonally adjusted number of houses started in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

New Housing Starts by Region

	NE Total	NE SF	NE MF**
April	131,000	61,000	70,000
March	171,000	68,000	103,000
2022	134,000	53,000	81,000
M/M change	-23.4%	-10.3%	-32.0%
Y/Y change	-2.2%	15.1%	-13.6%
	MW Total	MW SF	MW MF
April	171,000	89,000	82,000
March	129,000	112,000	17,000
2022	219,000	155,000	64,000
M/M change	32.6%	-20.5%	382.4%
Y/Y change	-21.9%	-42.6%	28.1%

All data are SAAR; NE = Northeast and MW = Midwest.

** US DOC does not report multi-family starts directly; this is an estimation (Total starts – SF starts).

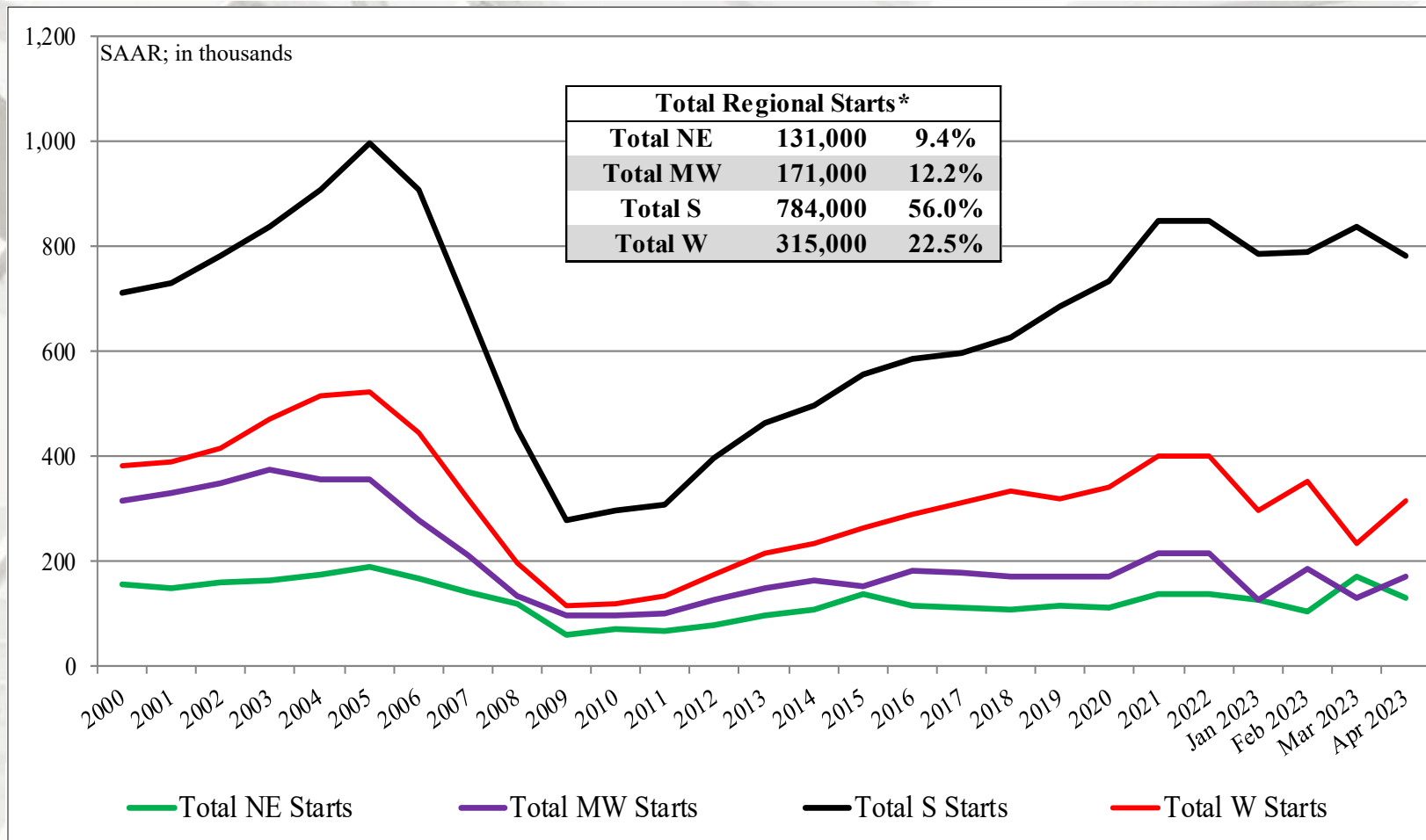
New Housing Starts by Region

	S Total	S SF	S MF**
April	784,000	495,000	289,000
March	837,000	527,000	310,000
2022	1,027,000	684,000	343,000
M/M change	-6.3%	-6.1%	-6.8%
Y/Y change	-23.7%	-27.6%	-15.7%
	W Total	W SF	W MF
April	315,000	201,000	114,000
March	234,000	126,000	108,000
2022	423,000	284,000	139,000
M/M change	34.6%	59.5%	5.6%
Y/Y change	-25.5%	-29.2%	-18.0%

All data are SAAR; S = South and W = West.

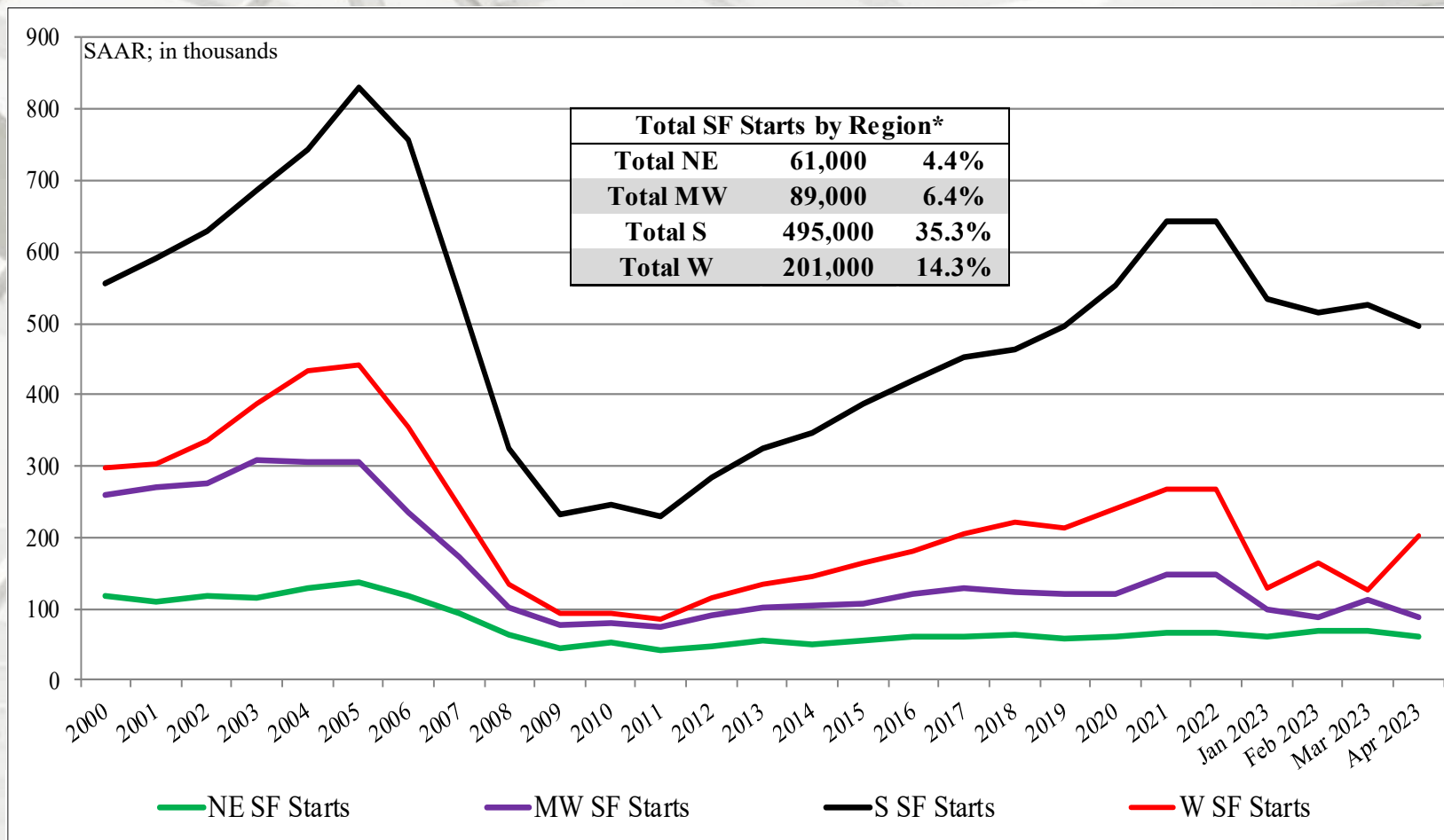
** US DOC does not report multi-family starts directly; this is an estimation (Total starts – SF starts).

New Housing Starts by Region



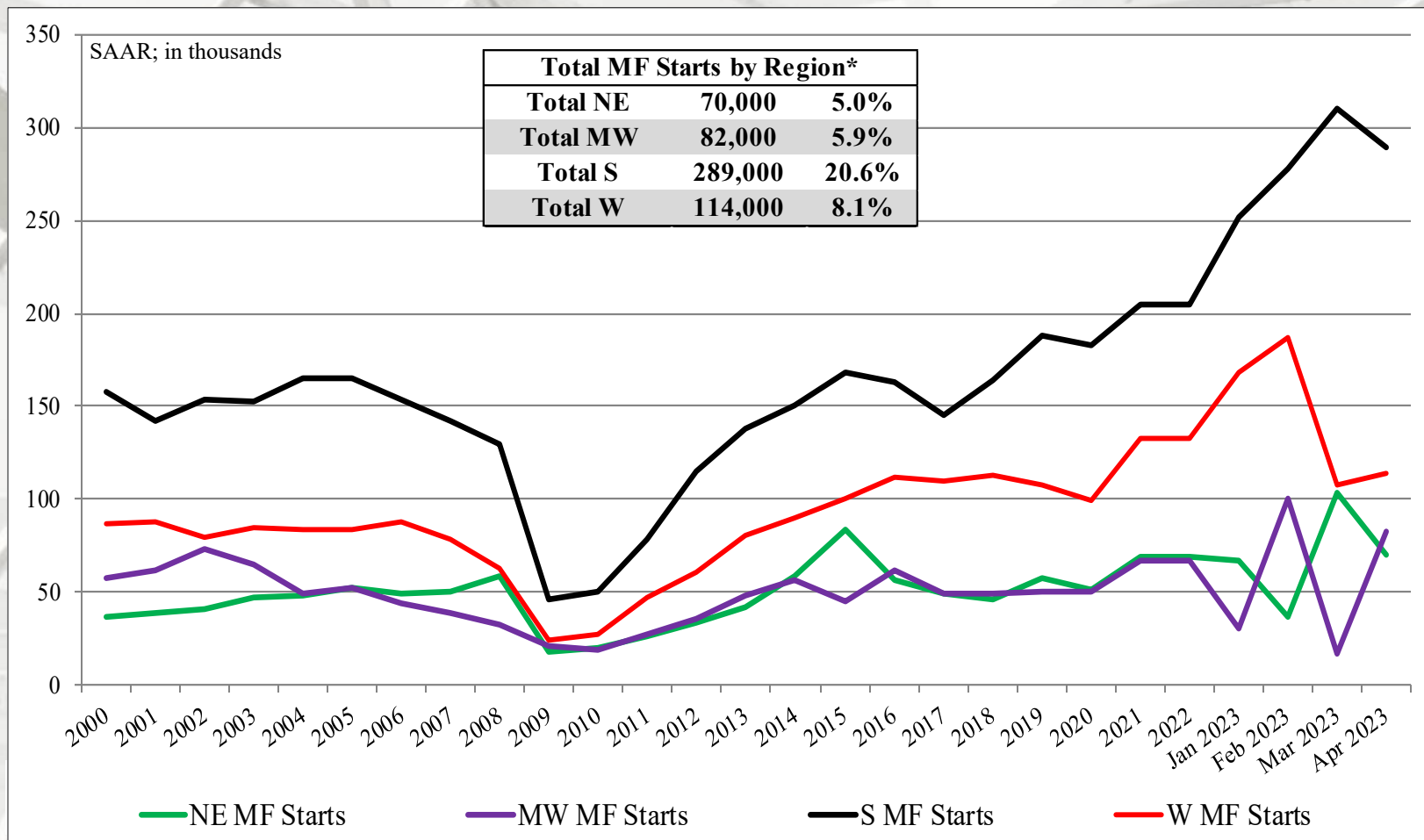
* Percentage of total starts.

Total SF Housing Starts by Region



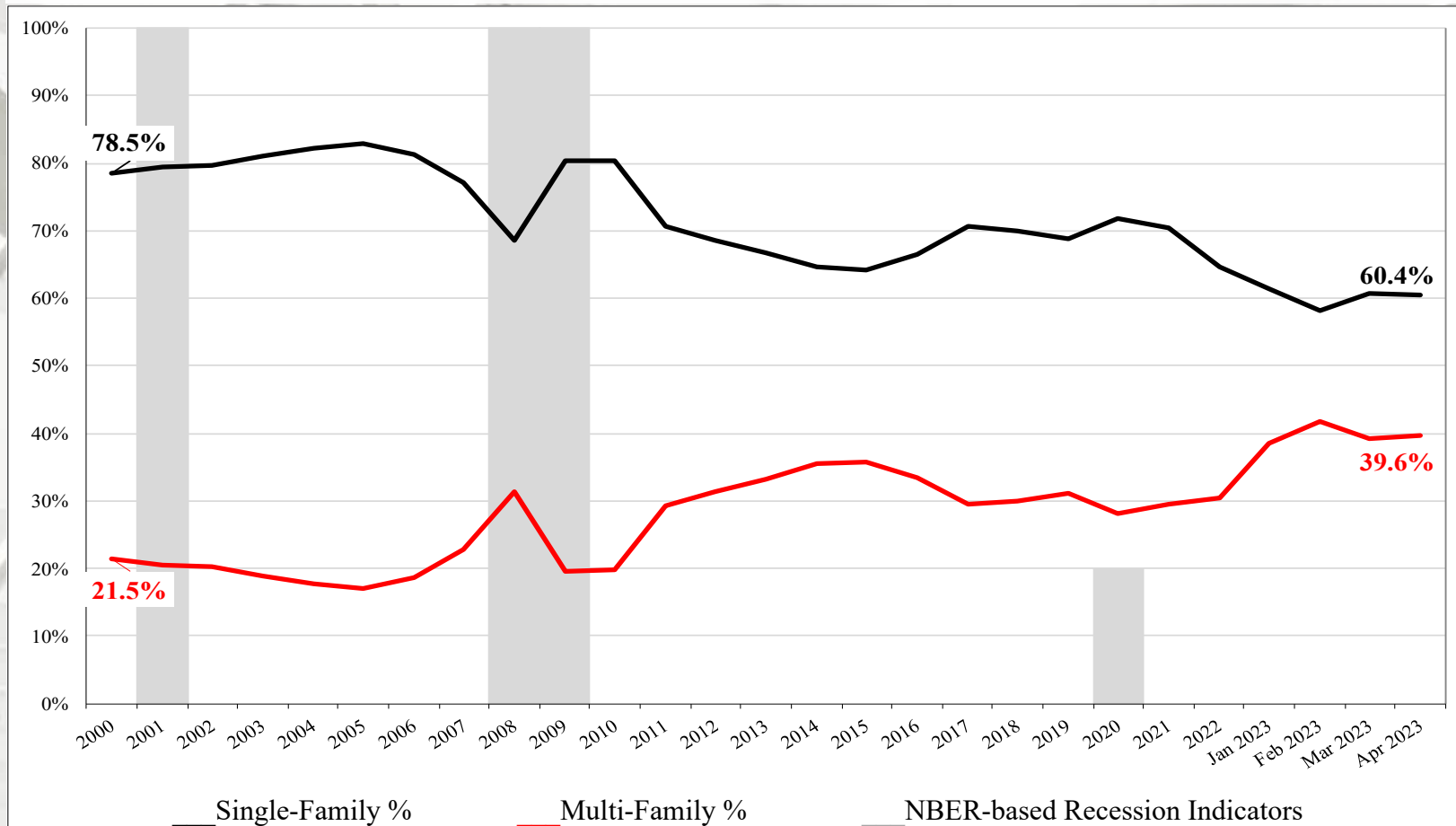
* Percentage of total starts.

MF Housing Starts by Region



* Percentage of total starts.

SF vs. MF Housing Starts (%)



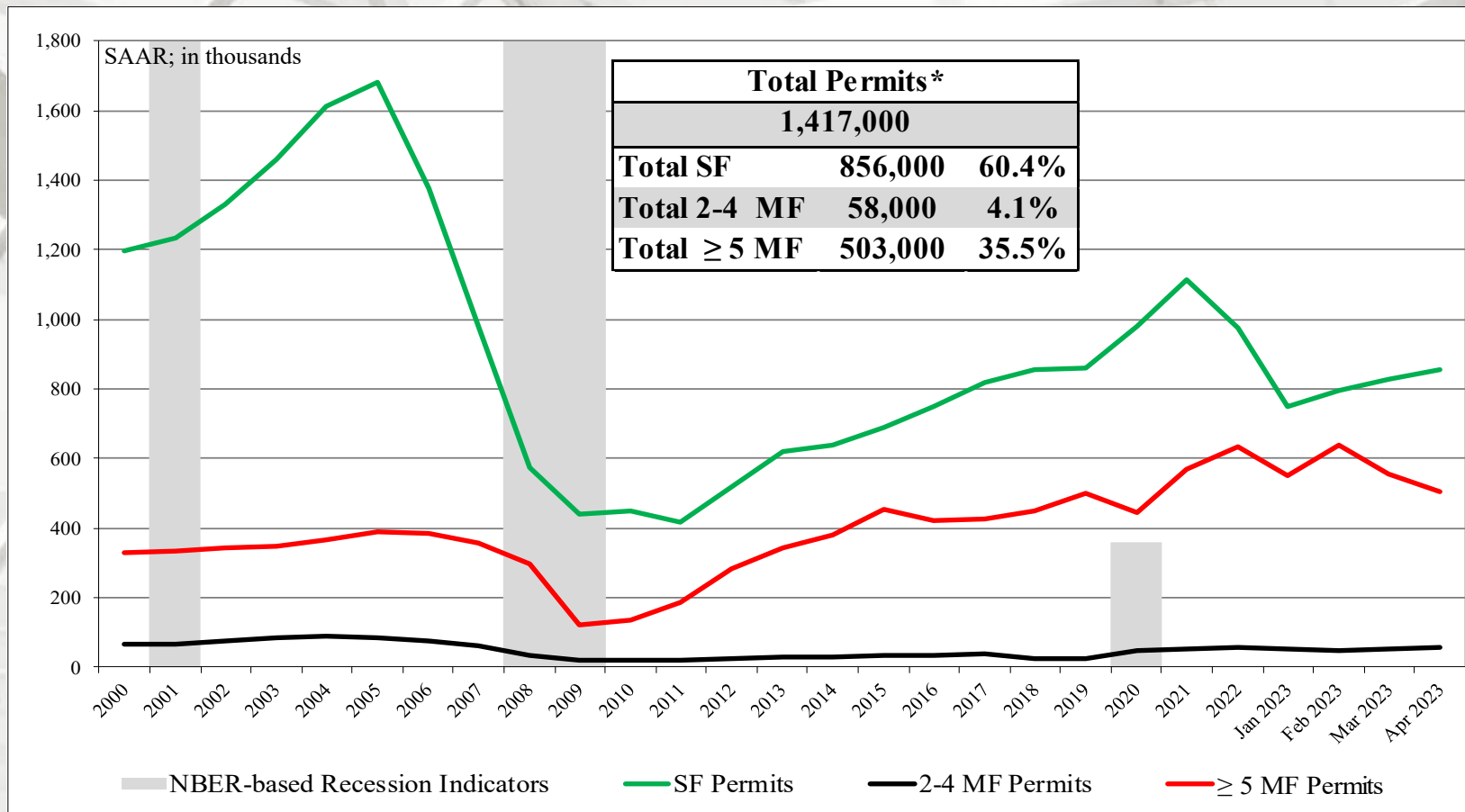
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
April	1,417,000	856,000	58,000	503,000
March	1,437,000	829,000	52,000	556,000
2022	1,795,000	1,085,000	58,000	652,000
M/M change	-1.4%	3.3%	11.5%	-9.5%
Y/Y change	-21.1%	-21.1%	0.0%	-22.9%

* All permit data are presented at a seasonally adjusted annual rate (SAAR).

Total New Housing Permits



* Percentage of total permits.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits by Region

	NE Total*	NE SF	NE MF**
April	107,000	55,000	52,000
March	148,000	55,000	93,000
2022	160,000	64,000	96,000
M/M change	-27.7%	0.0%	-44.1%
Y/Y change	-33.1%	-14.1%	-45.8%

	MW Total*	MW SF	MW MF**
April	174,000	108,000	66,000
March	204,000	103,000	101,000
2022	242,000	132,000	110,000
M/M change	-14.7%	4.9%	-34.7%
Y/Y change	-28.1%	-18.2%	-40.0%

NE = Northeast; MW = Midwest

* All data are SAAR

** US DOC does not report multi-family permits directly; this is an estimation (Total permits – SF permits).

New Housing Permits by Region

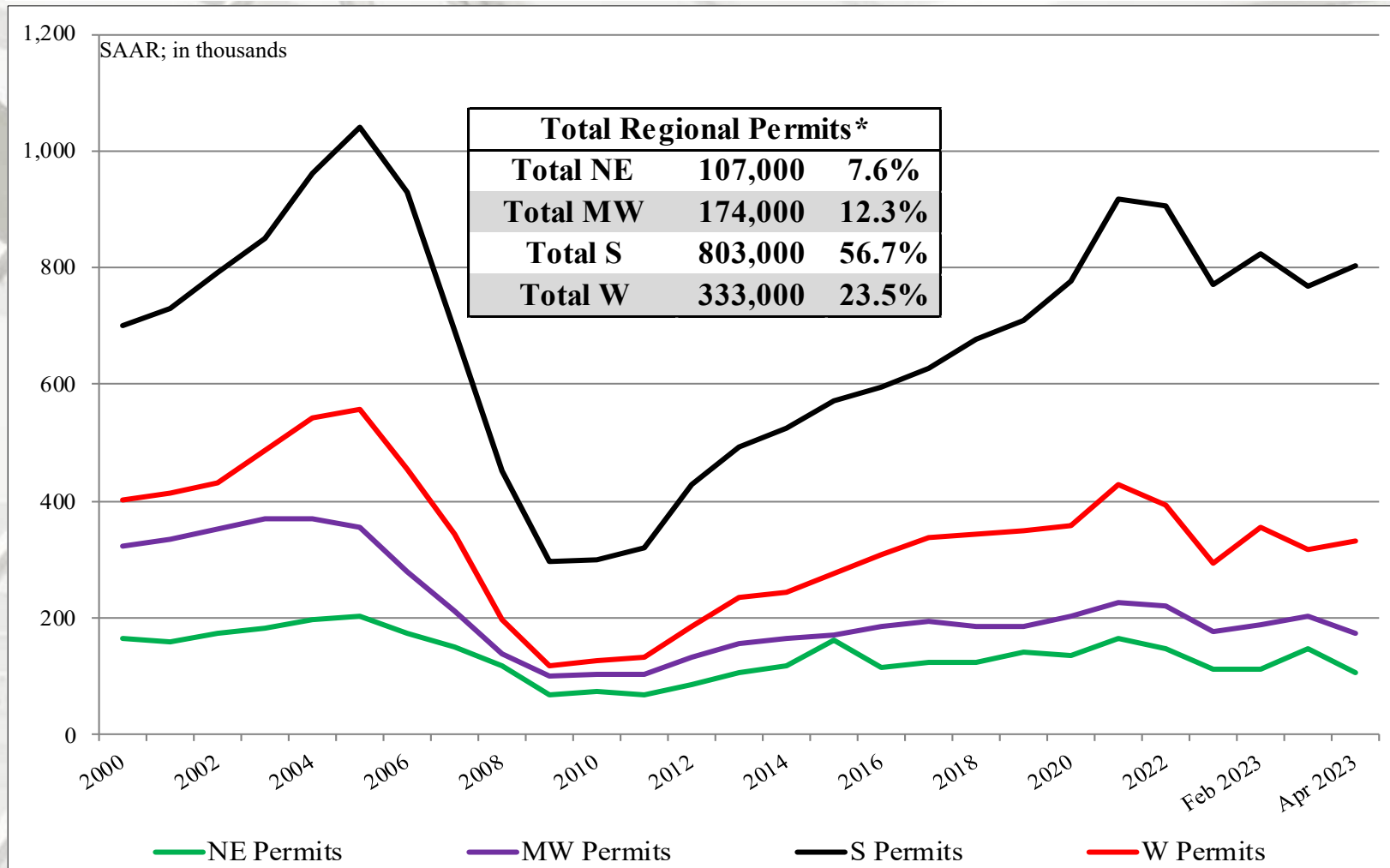
	S Total*	S SF	S MF**
April	803,000	521,000	282,000
March	768,000	502,000	266,000
2022	975,000	646,000	329,000
M/M change	4.6%	3.8%	6.0%
Y/Y change	-17.6%	-19.3%	-14.3%
	W Total*	W SF	W MF**
April	333,000	172,000	161,000
March	317,000	169,000	148,000
2022	418,000	243,000	175,000
M/M change	5.0%	1.8%	8.8%
Y/Y change	-20.3%	-29.2%	-8.0%

S = South; W = West

* All data are SAAR

** US DOC does not report multi-family permits directly; this is an estimation (Total permits – SF permits).

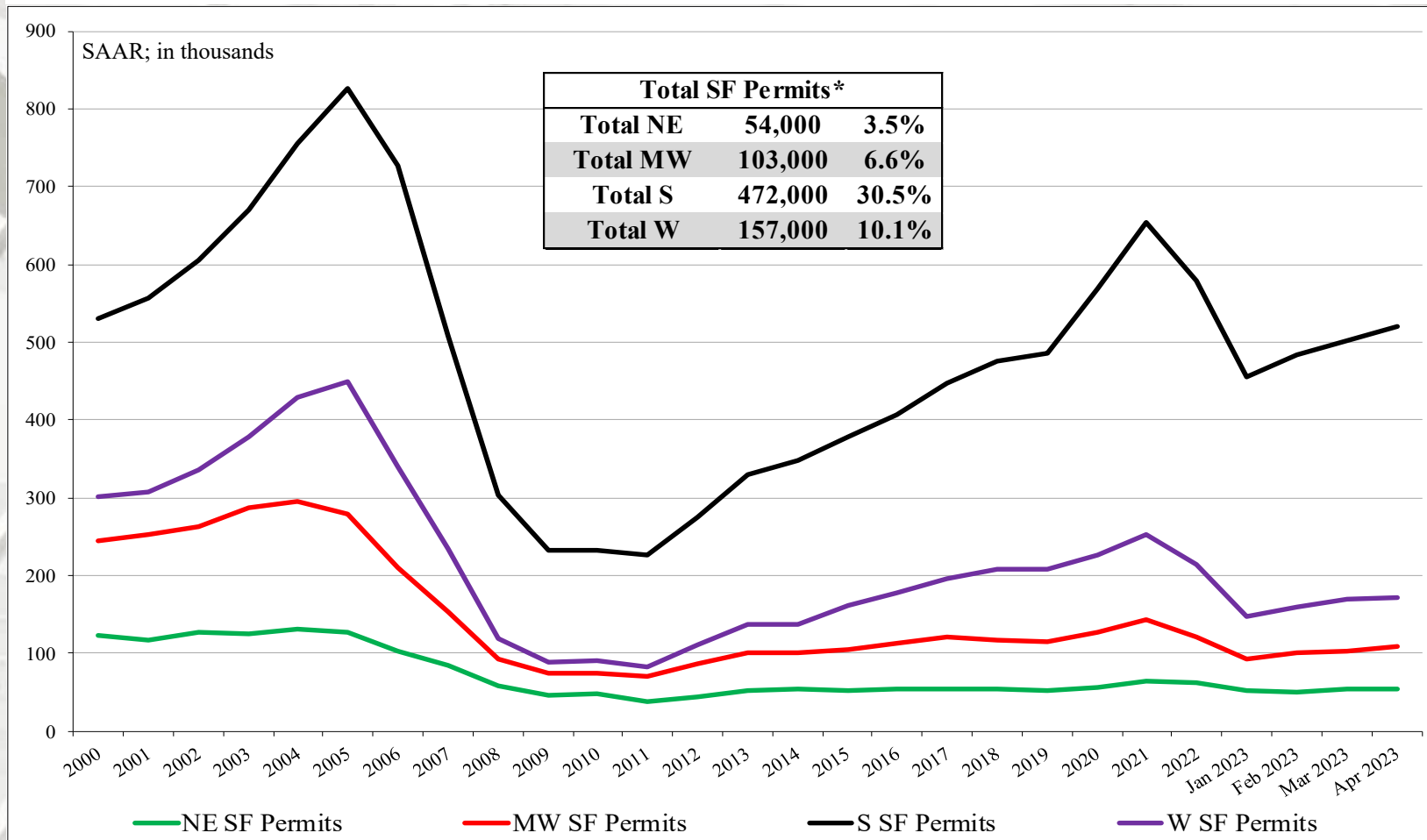
Total Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

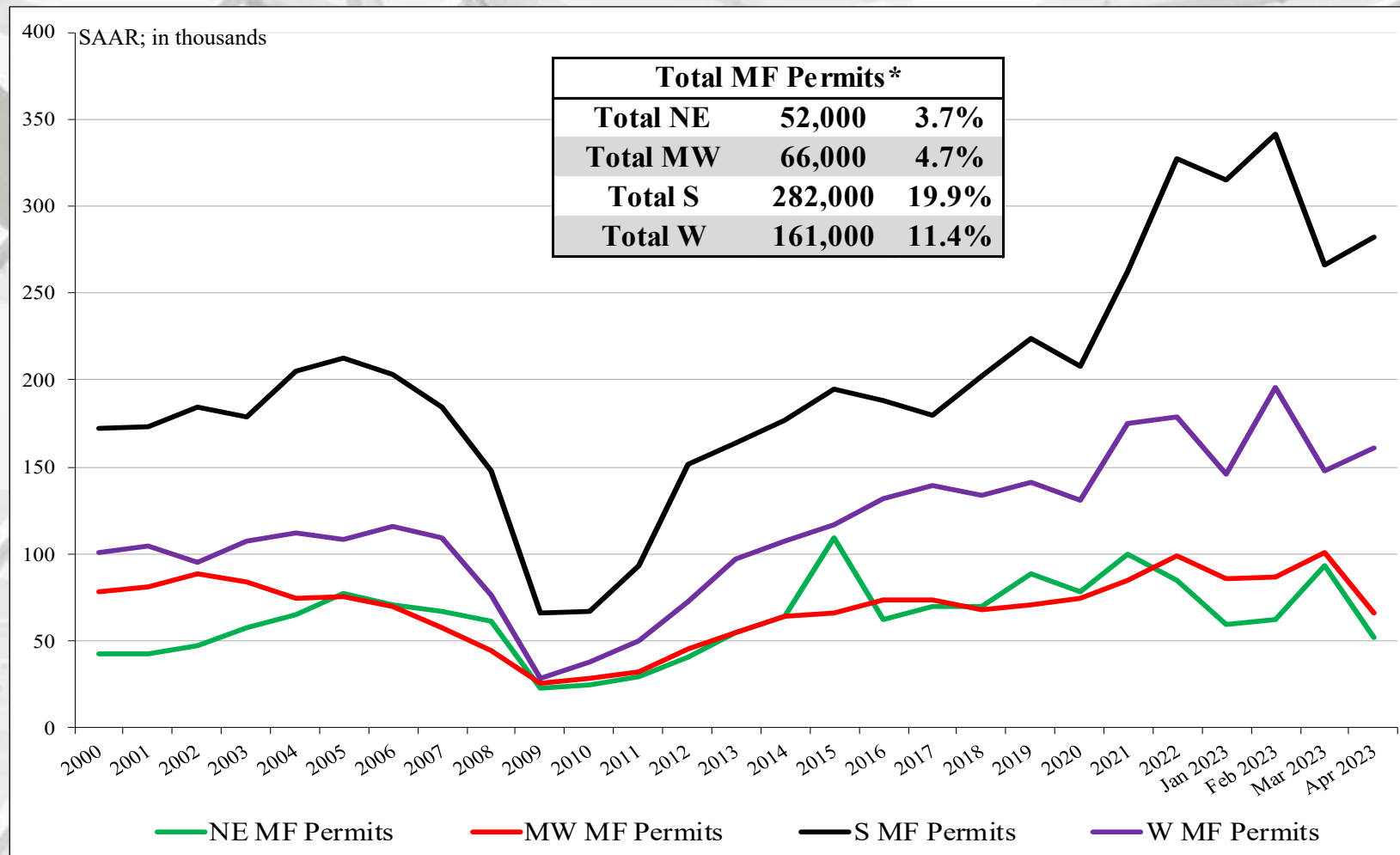
SF Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

MF Housing Permits by Region



NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

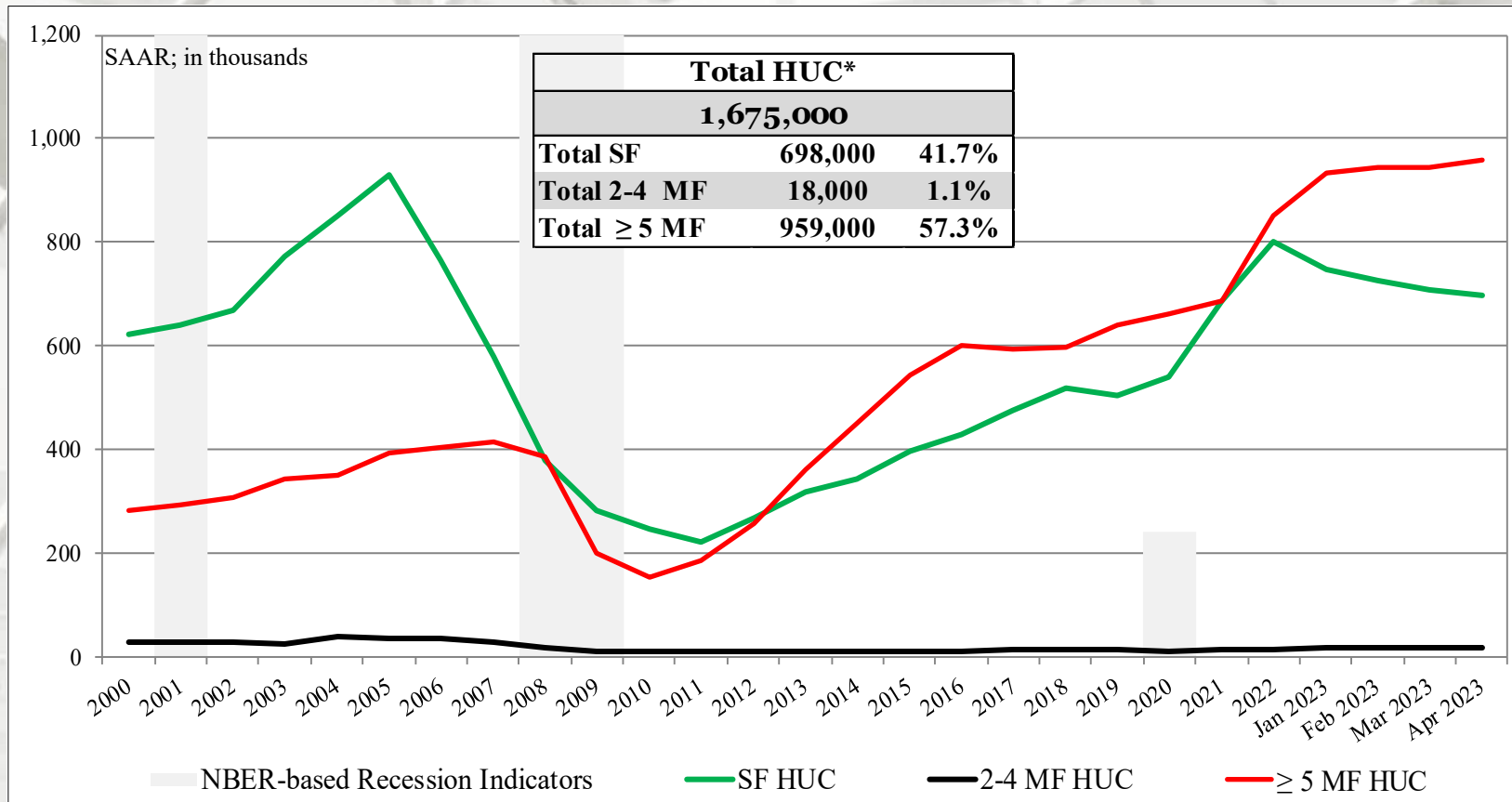
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
April	1,675,000	698,000	18,000	959,000
March	1,668,000	708,000	17,000	943,000
2022	1,669,000	829,000	13,000	827,000
M/M change	0.4%	-1.4%	5.9%	1.7%
Y/Y change	0.4%	-15.8%	38.5%	16.0%

All housing under construction data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2-4 multi-family units under construction directly; this is an estimation ((Total under construction – (SF + 5-unit MF)).

Total Housing Under Construction



US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + 5-unit MF HUC)).

* Percentage of total housing under construction units.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
April	218,000	67,000	151,000
March	218,000	67,000	151,000
2022	213,000	61,000	152,000
M/M change	0.0%	0.0%	0.0%
Y/Y change	2.3%	9.8%	-0.7%
	MW Total	MW SF	MW MF
April	205,000	93,000	112,000
March	207,000	96,000	111,000
2022	219,000	115,000	104,000
M/M change	-1.0%	-3.1%	0.9%
Y/Y change	-6.4%	-19.1%	7.7%

All data are SAAR; NE = Northeast and MW = Midwest.

** US DOC does not report multi-family units under construction directly; this is an estimation
(Total under construction – SF under construction).

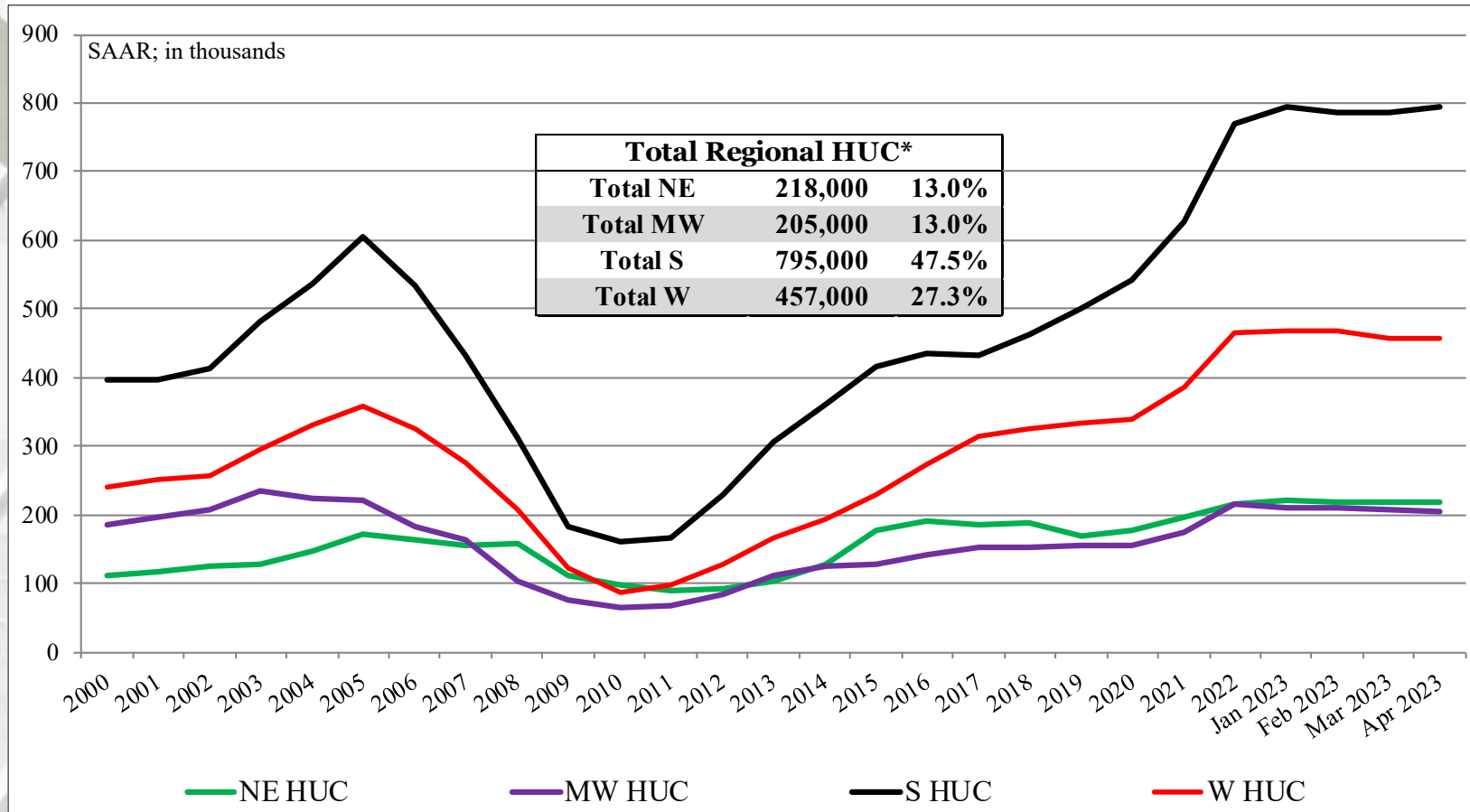
New Housing Under Construction by Region

	S Total	S SF	S MF**
April	795,000	370,000	425,000
March	787,000	376,000	411,000
2022	765,000	437,000	328,000
M/M change	1.0%	-1.6%	3.4%
Y/Y change	3.9%	-15.3%	29.6%
	W Total	W SF	W MF
April	457,000	168,000	289,000
March	456,000	169,000	287,000
2022	472,000	216,000	256,000
M/M change	0.2%	-0.6%	0.7%
Y/Y change	-3.2%	-22.2%	12.9%

All data are SAAR; S = South and W = West.

** US DOC does not report multi-family units under construction directly; this is an estimation
(Total under construction – SF under construction).

Total Housing Under Construction by Region

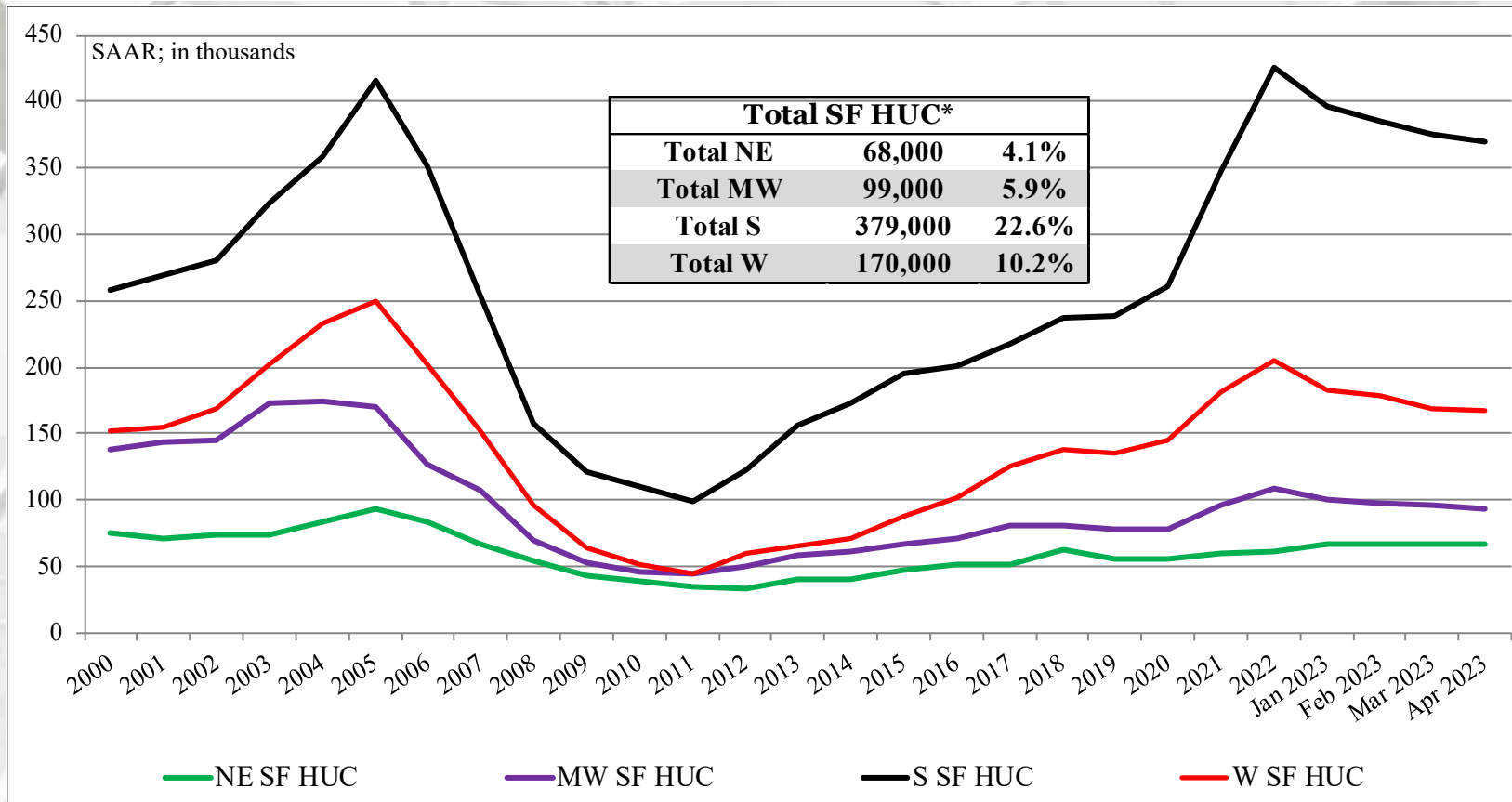


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly; this is an estimation (Total under construction – (SF + 5-unit MF under construction)).

* Percentage of total housing under construction units.

SF Housing Under Construction by Region

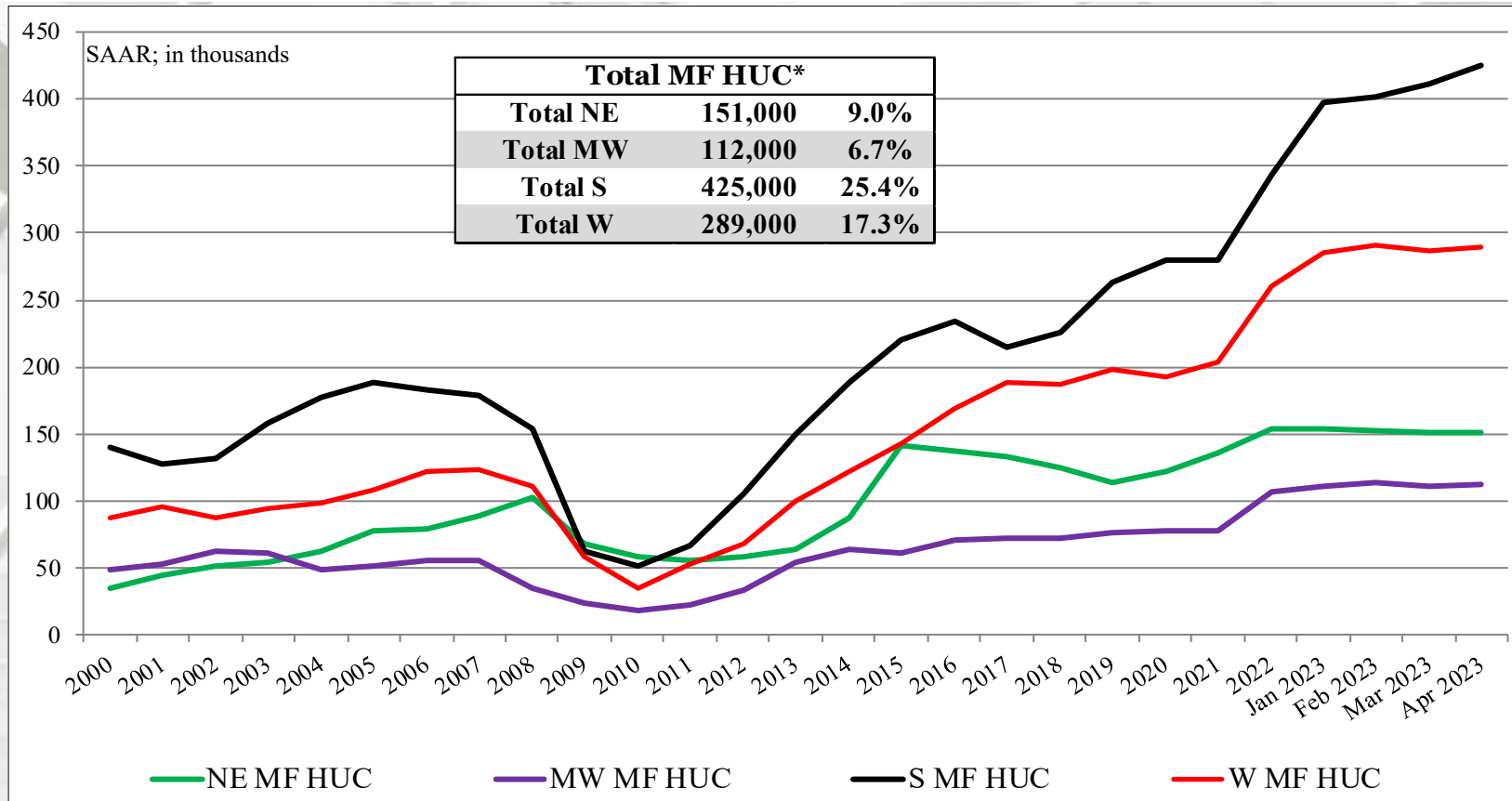


NE = Northeast, MW = Midwest, S = South, W = West.

US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under construction – (SF + 5-unit MF under construction)).

* Percentage of total housing under construction units.

MF Housing Under Construction by Region



NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family under construction directly; this is an estimation (Total under construction – (SF + 5-unit MF under construction)).

* Percentage of total housing under construction units.

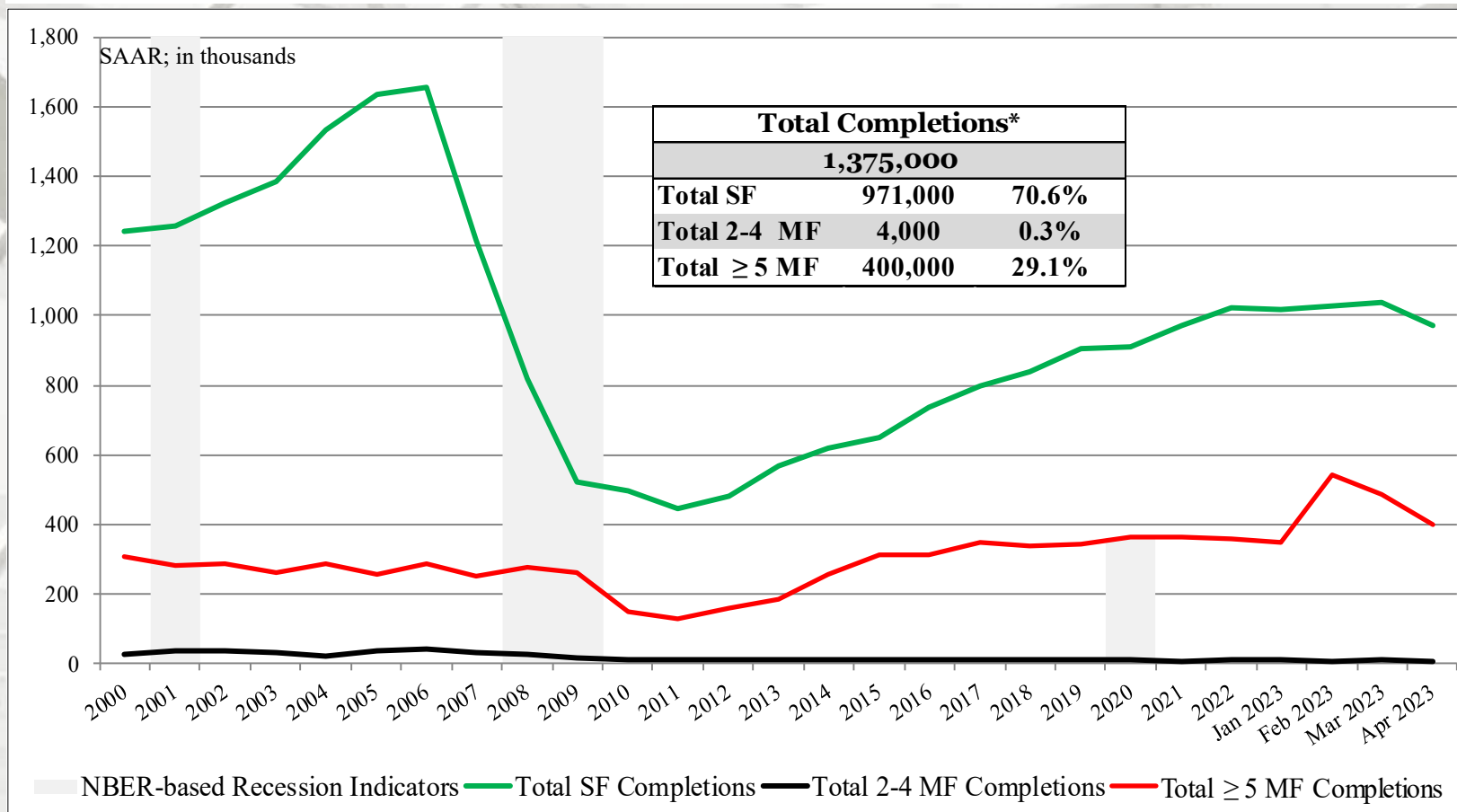
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
April	1,375,000	971,000	4,000	400,000
March	1,534,000	1,039,000	11,000	484,000
2022	1,361,000	1,024,000	15,000	322,000
M/M change	-10.4%	-6.5%	-63.6%	-17.4%
Y/Y change	1.0%	-5.2%	-73.3%	24.2%

* All completion data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report multi-family completions directly; this is an estimation ((Total completions – (SF + ≥ 5-unit MF)).

Total Housing Completions



US DOC does not report multifamily completions directly, this is an estimation ((Total completions – (SF + + 5-unit MF)).

* Percentage of total housing completions

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Completions by Region

	NE Total	NE SF	NE MF**
April	113,000	75,000	38,000
March	132,000	65,000	67,000
2022	98,000	57,000	41,000
M/M change	-14.4%	15.4%	-43.3%
Y/Y change	15.3%	31.6%	-7.3%
	MW Total	MW SF	MW MF
April	205,000	122,000	83,000
March	215,000	132,000	83,000
2022	174,000	120,000	54,000
M/M change	-4.7%	-7.6%	0.0%
Y/Y change	17.8%	1.7%	53.7%

NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

New Housing Completions by Region

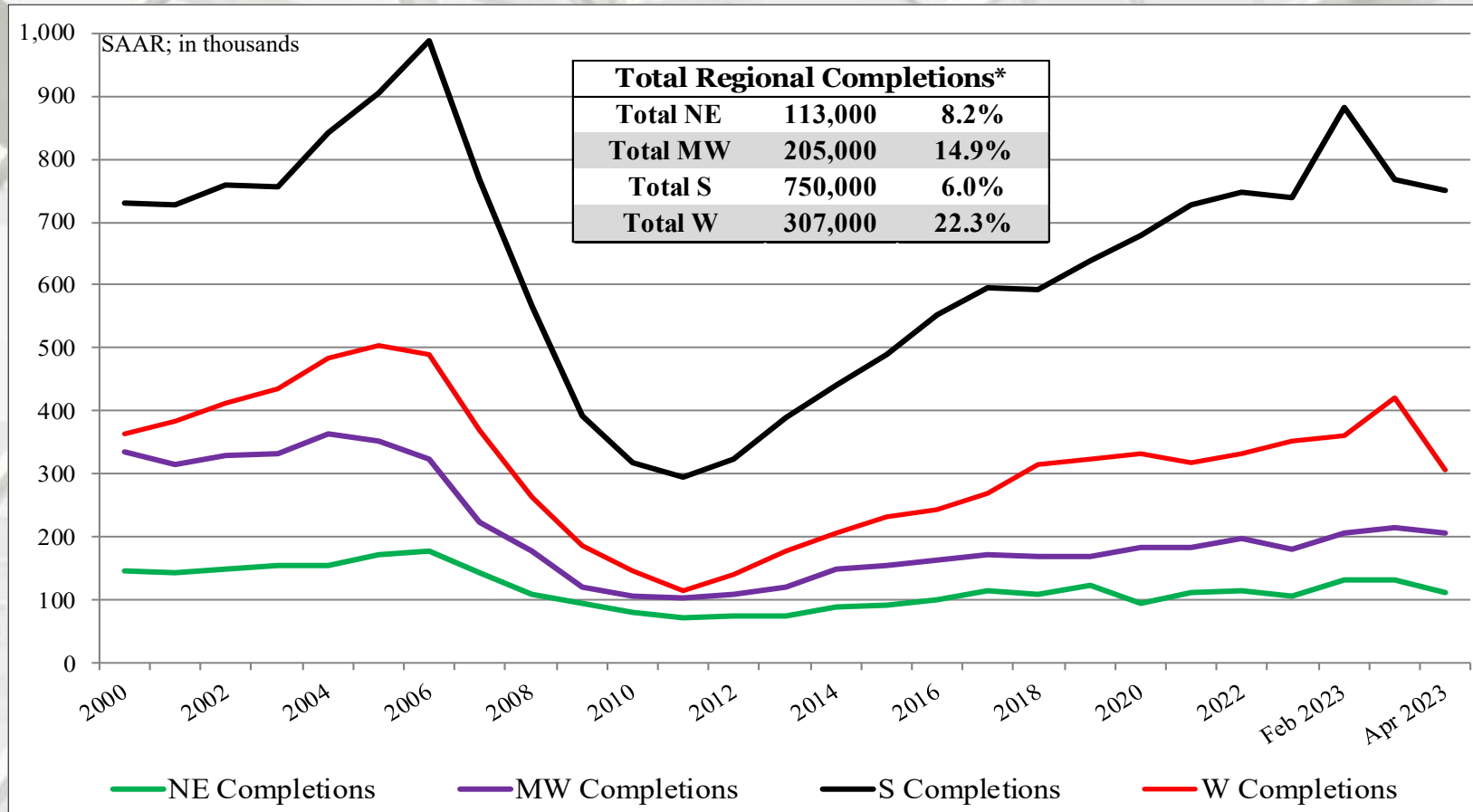
	S Total	S SF	S MF**
April	750,000	567,000	183,000
March	766,000	605,000	161,000
2022	747,000	574,000	173,000
M/M change	-2.1%	-6.3%	13.7%
Y/Y change	0.4%	-1.2%	5.8%
	W Total	W SF	W MF
April	307,000	207,000	100,000
March	421,000	237,000	184,000
2022	342,000	273,000	69,000
M/M change	-27.1%	-12.7%	-45.7%
Y/Y change	-10.2%	-24.2%	44.9%

NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

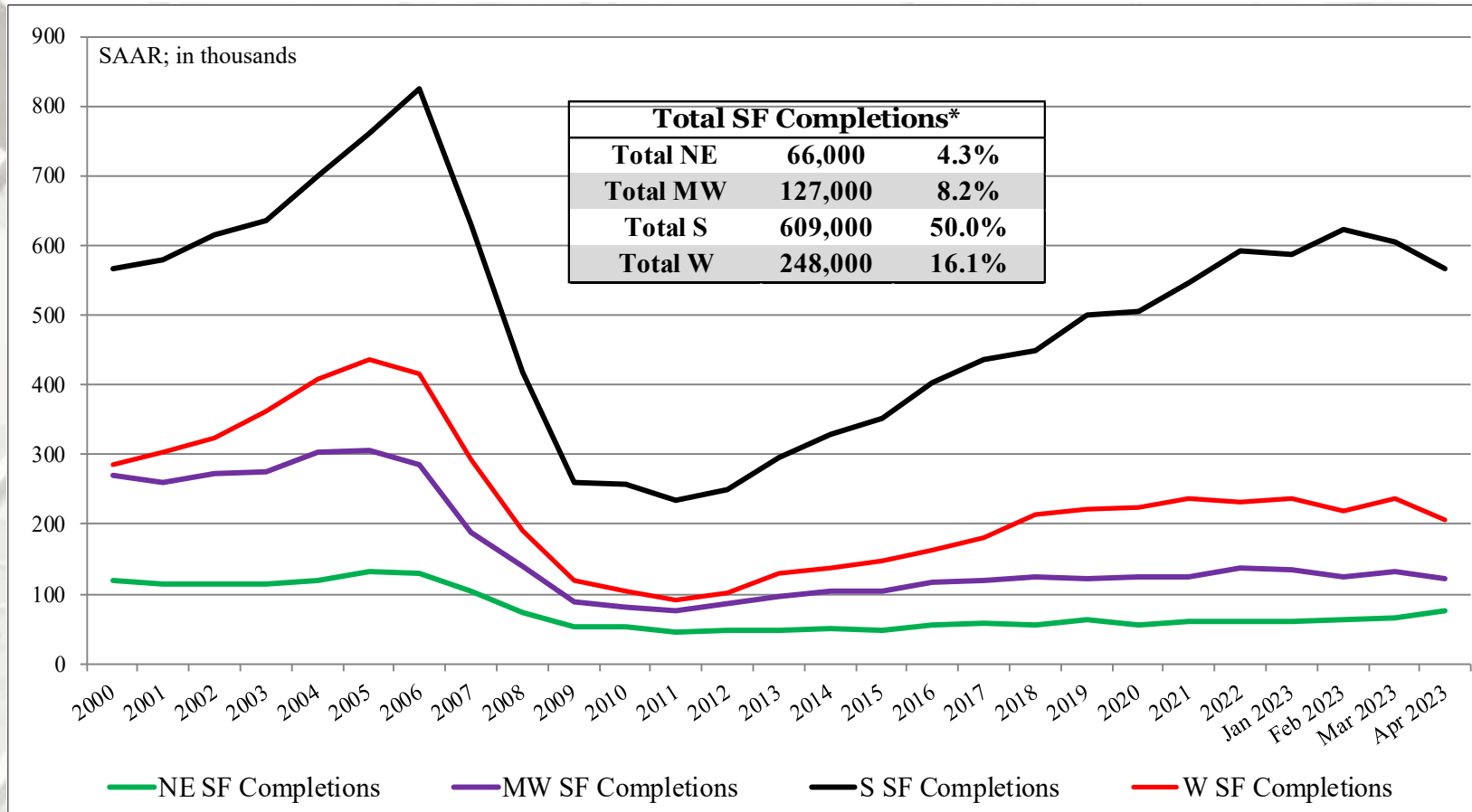
Total Housing Completions by Region



All data are SAAR; NE = Northeast and MW = Midwest; S = South, W = West

** US DOC does not report multi-family unit completions directly; this is an estimation (Total completions – SF completions).

SF Housing Completions by Region

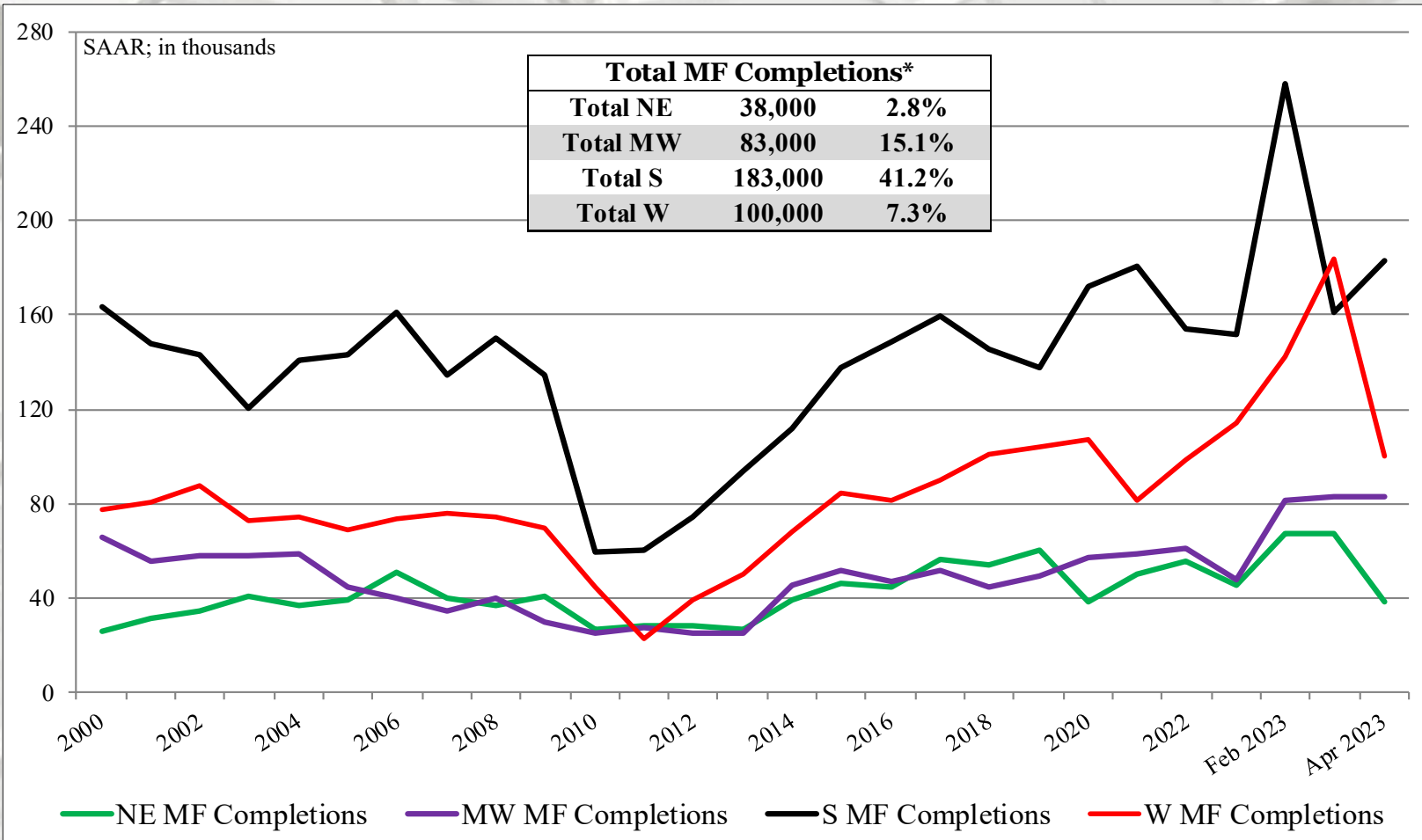


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

MF Housing Completions by Region

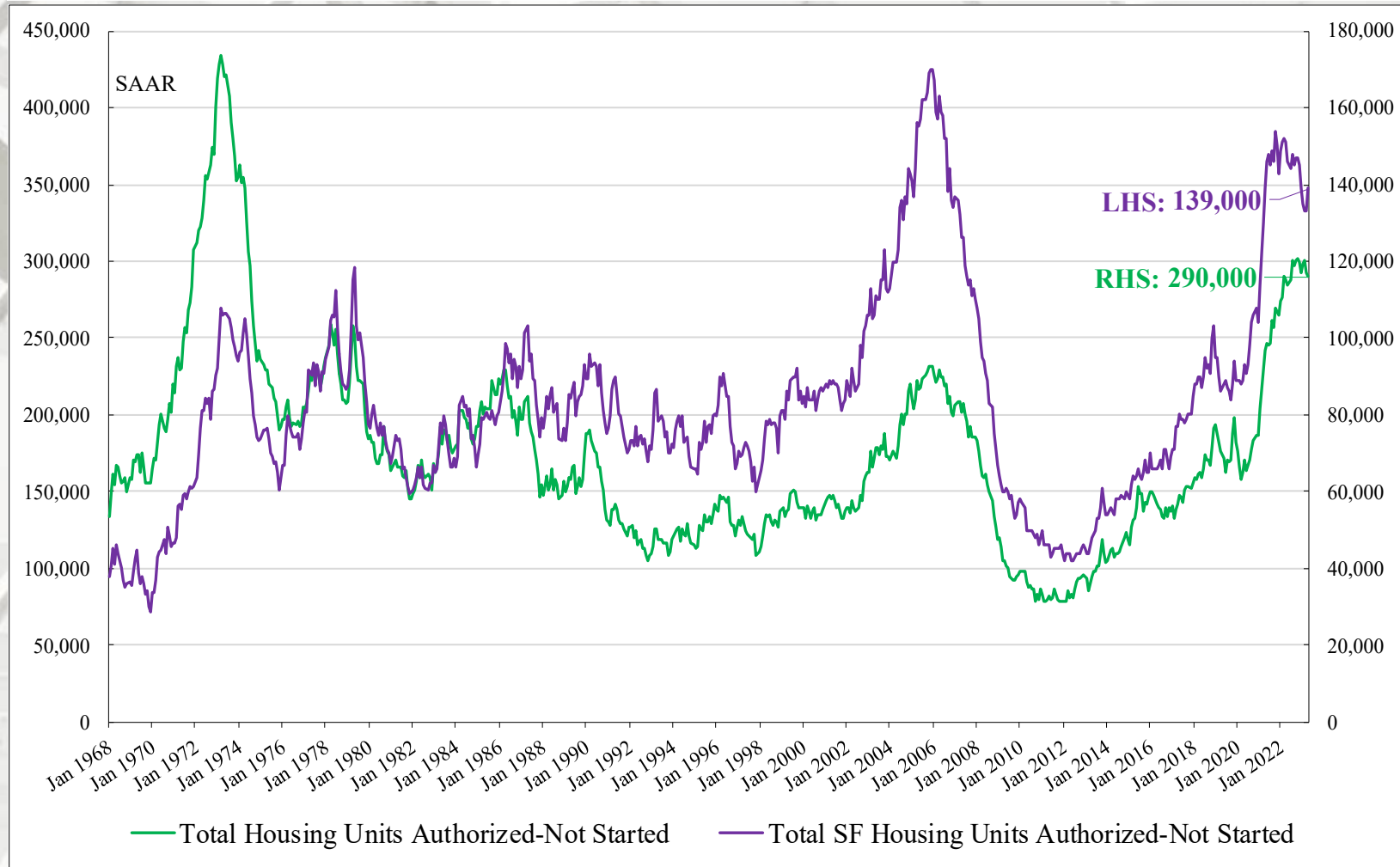


NE = Northeast, MW = Midwest, S = South, W = West

US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

Comparison of SF Units Authorized & Not Started to SF Housing Units Completed



Authorized, Not Started vs. Housing Completions

Total authorized units “not” started was 290,000 in April, a decline from March, and SF authorized units “not” started increased to 139,000 in April.

The primary reason is manufacturing supply chain disruptions – ranging from appliances to windows; labor, logistics, and local building regulations.

New Single-Family House Sales

	New SF Sales*	Median Price	Mean Price	Month's Supply
April	683,000	\$420,800	\$501,000	7.6
March	656,000	\$455,800	\$559,200	7.9
2022	611,000	\$458,200	\$562,400	8.5
M/M change	4.1%	-7.7%	-10.4%	-3.8%
Y/Y change	11.8%	-8.2%	-10.9%	-10.6%

* All new sales data are presented at a seasonally adjusted annual rate (SAAR)¹ and housing prices are adjusted at irregular intervals².

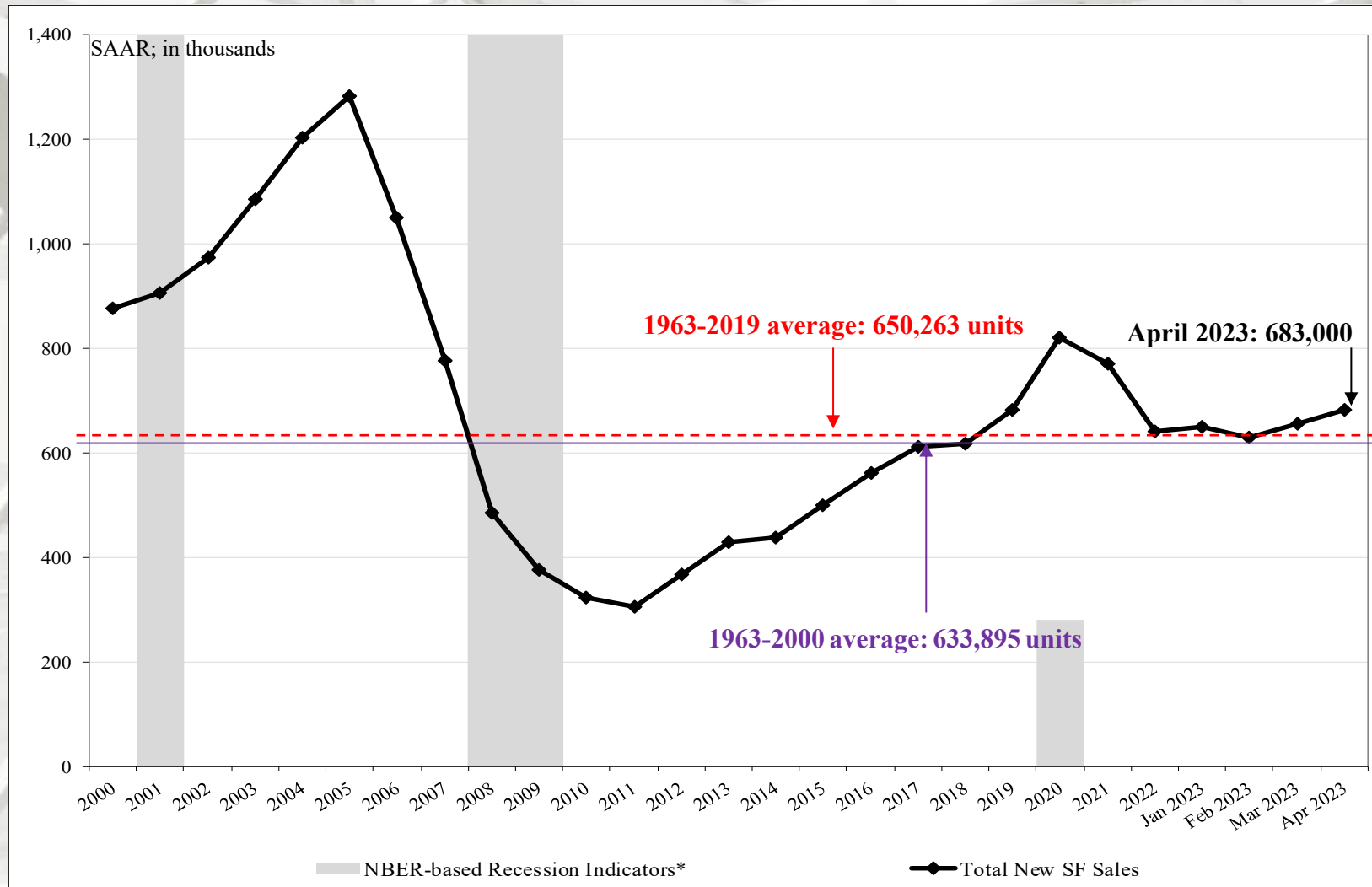
New SF sales were more than the consensus forecast³ of 670 m; range 650 m to 696 m. The past three month's new SF sales data also were revised:

January initial: 670 m, revised to 649 m.

February initial: 640 m, revised to 631 m.

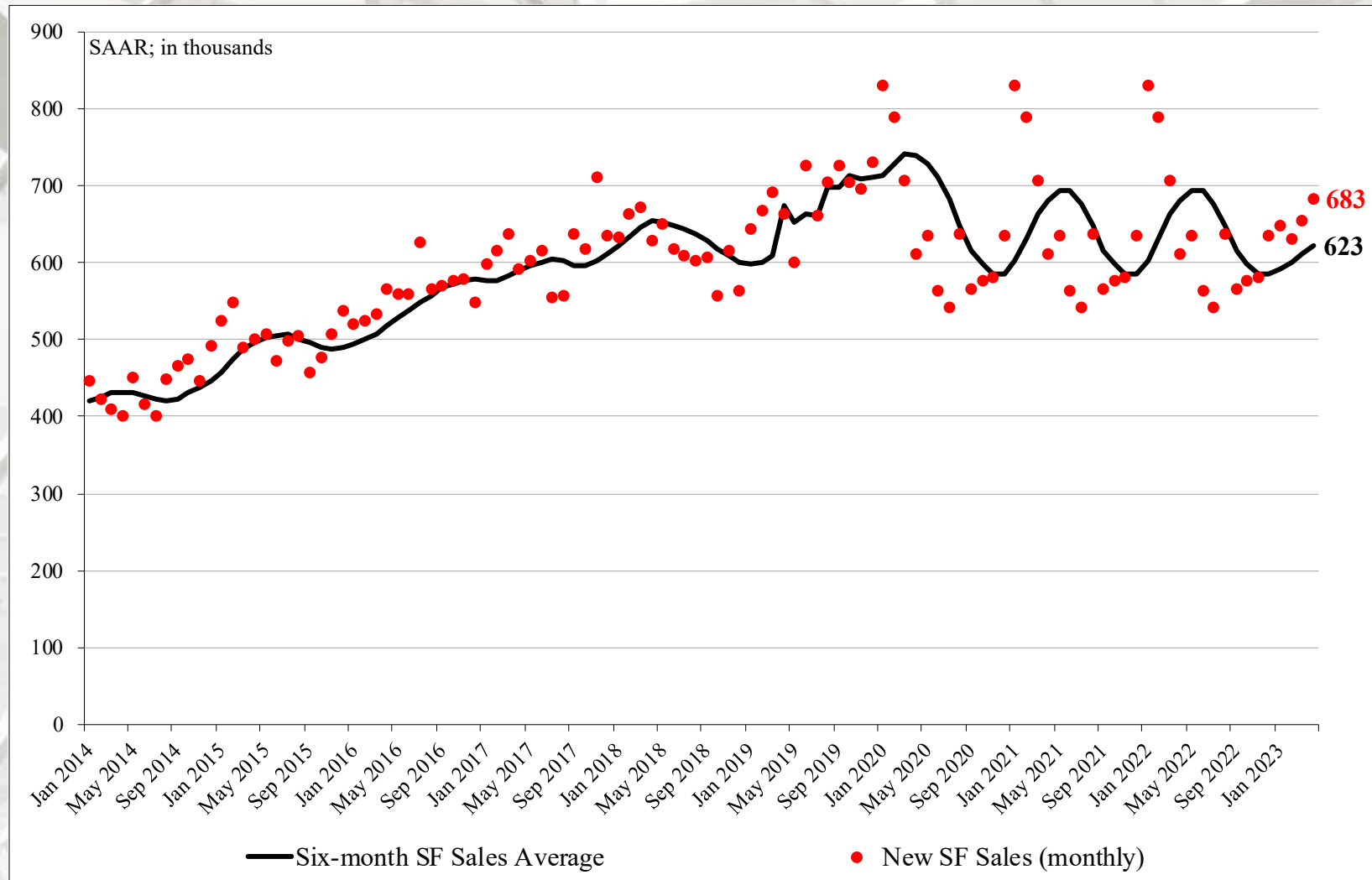
March initial: 683 m, revised to 656 m.

New SF House Sales



* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Housing Sales: Six-month average & monthly



New SF House Sales by Region and Price Category

	NE	MW	S	W
April	24,000	76,000	443,000	140,000
March	58,000	68,000	376,000	154,000
2022	45,000	63,000	359,000	144,000
M/M change	-58.6%	11.8%	17.8%	-9.1%
Y/Y change	-46.7%	20.6%	23.4%	-2.8%

NE = Northeast; MW = Midwest; S = South; W = West

¹ All data are SAAR

² Houses for which sales price were not reported have been distributed proportionally to those for which sales price was reported;

³ Detail April not add to total because of rounding.

⁴ Housing prices are adjusted at irregular intervals.

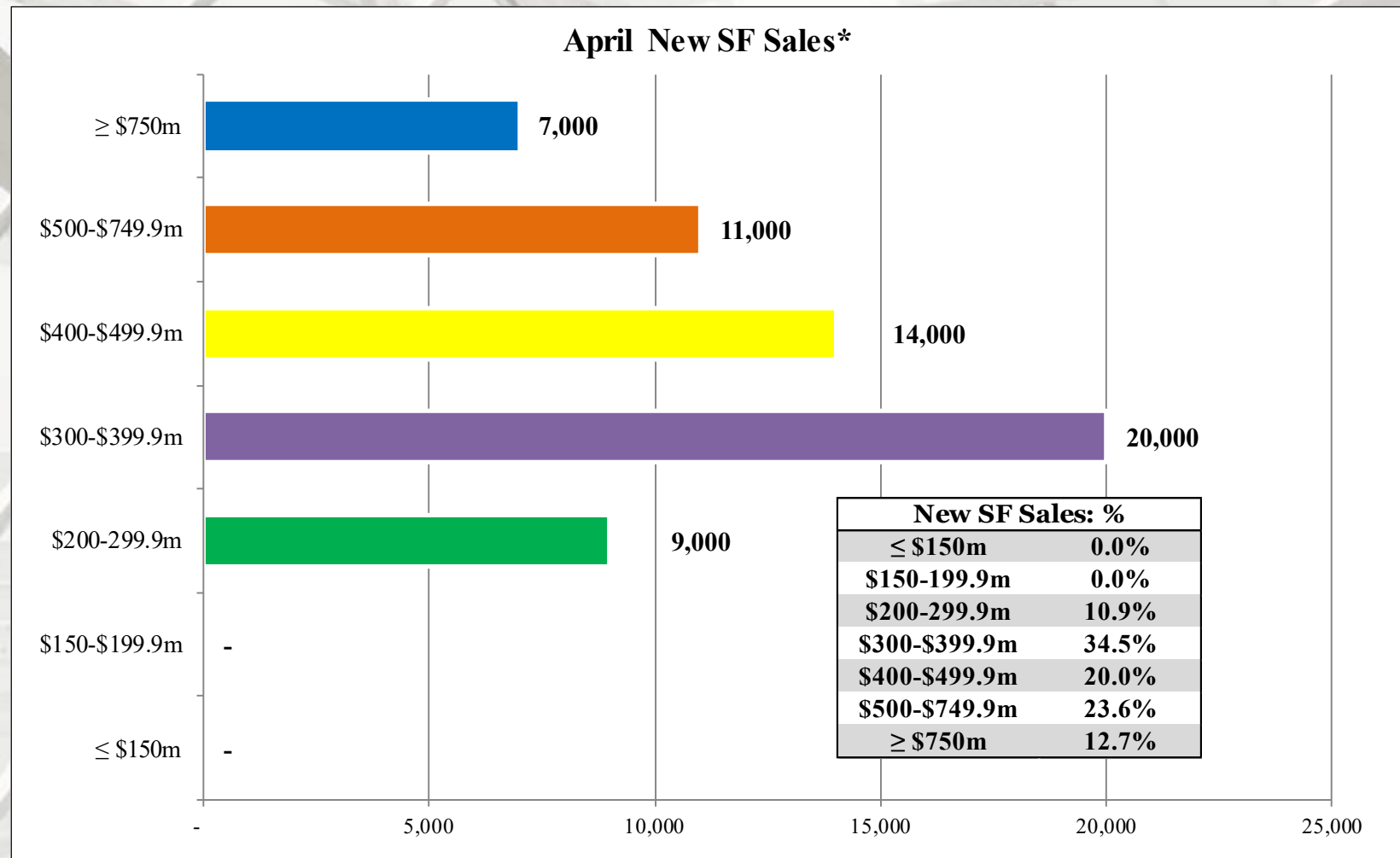
⁵ Z = Less than 500 units or less than 0.5 percent

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 5/23/23;

⁴ https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

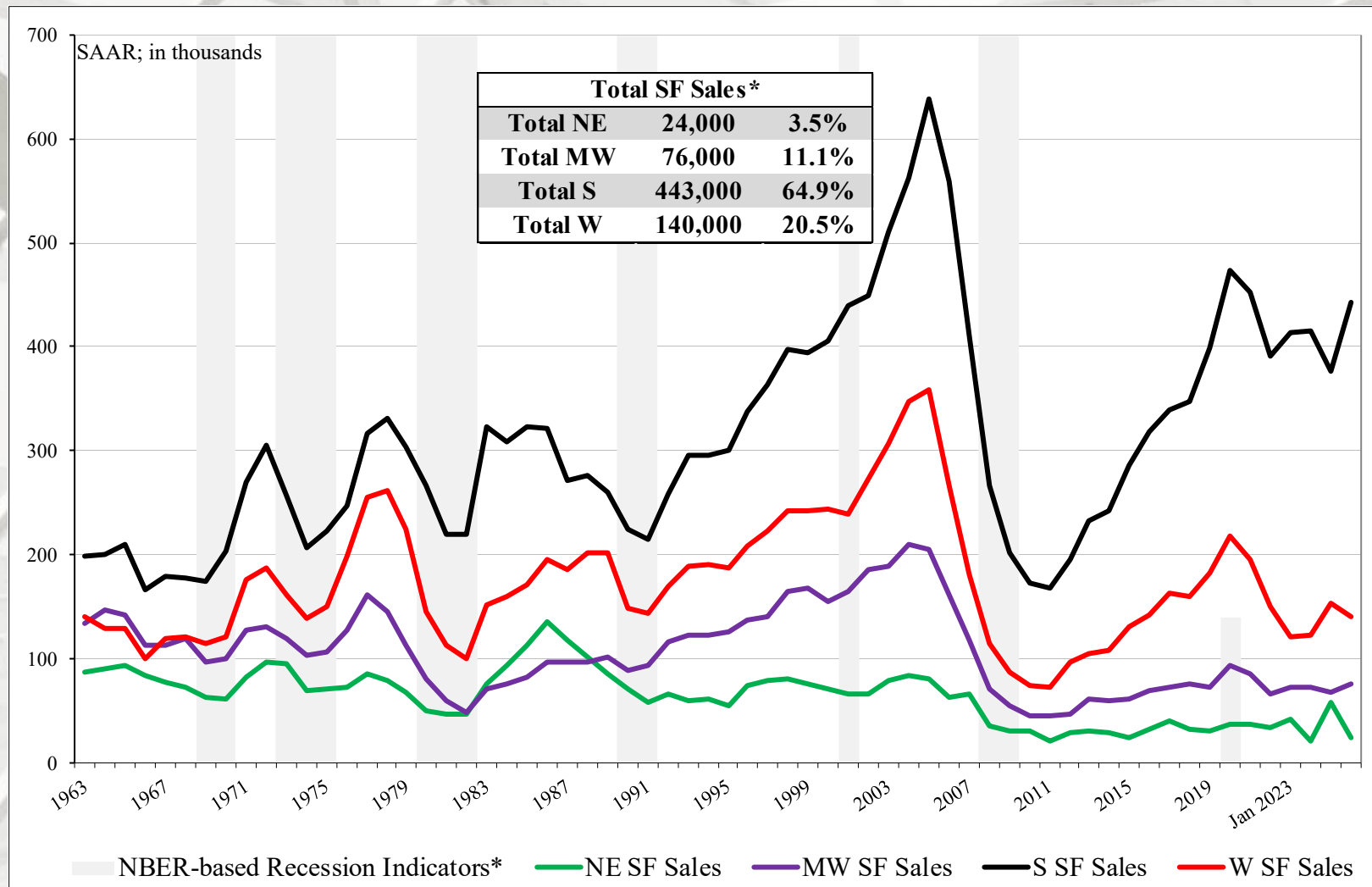
[Return TOC](#)

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

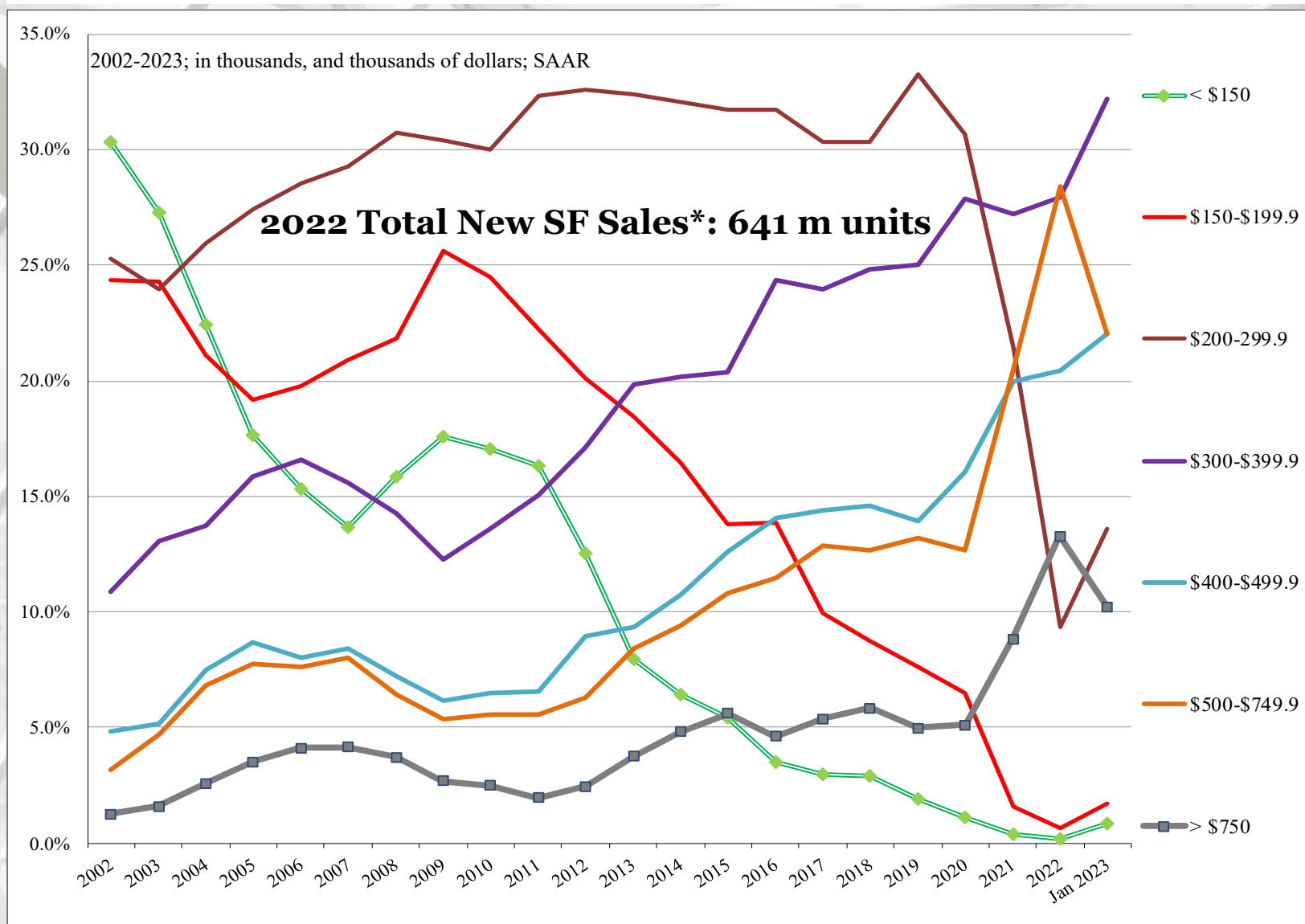


NE = Northeast; MW = Midwest; S = South; W = West

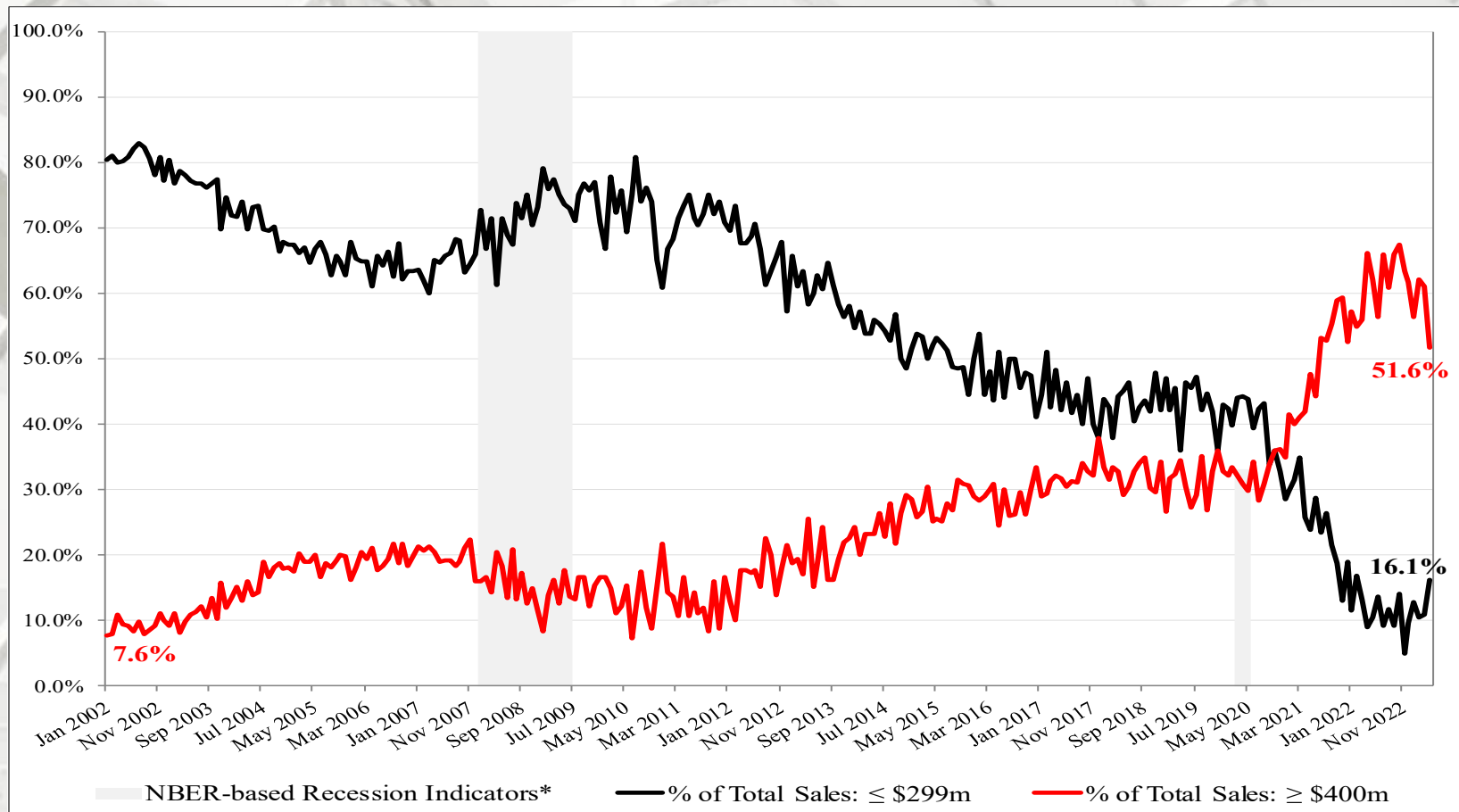
* Percentage of total new sales.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales by Price Category



New SF House Sales

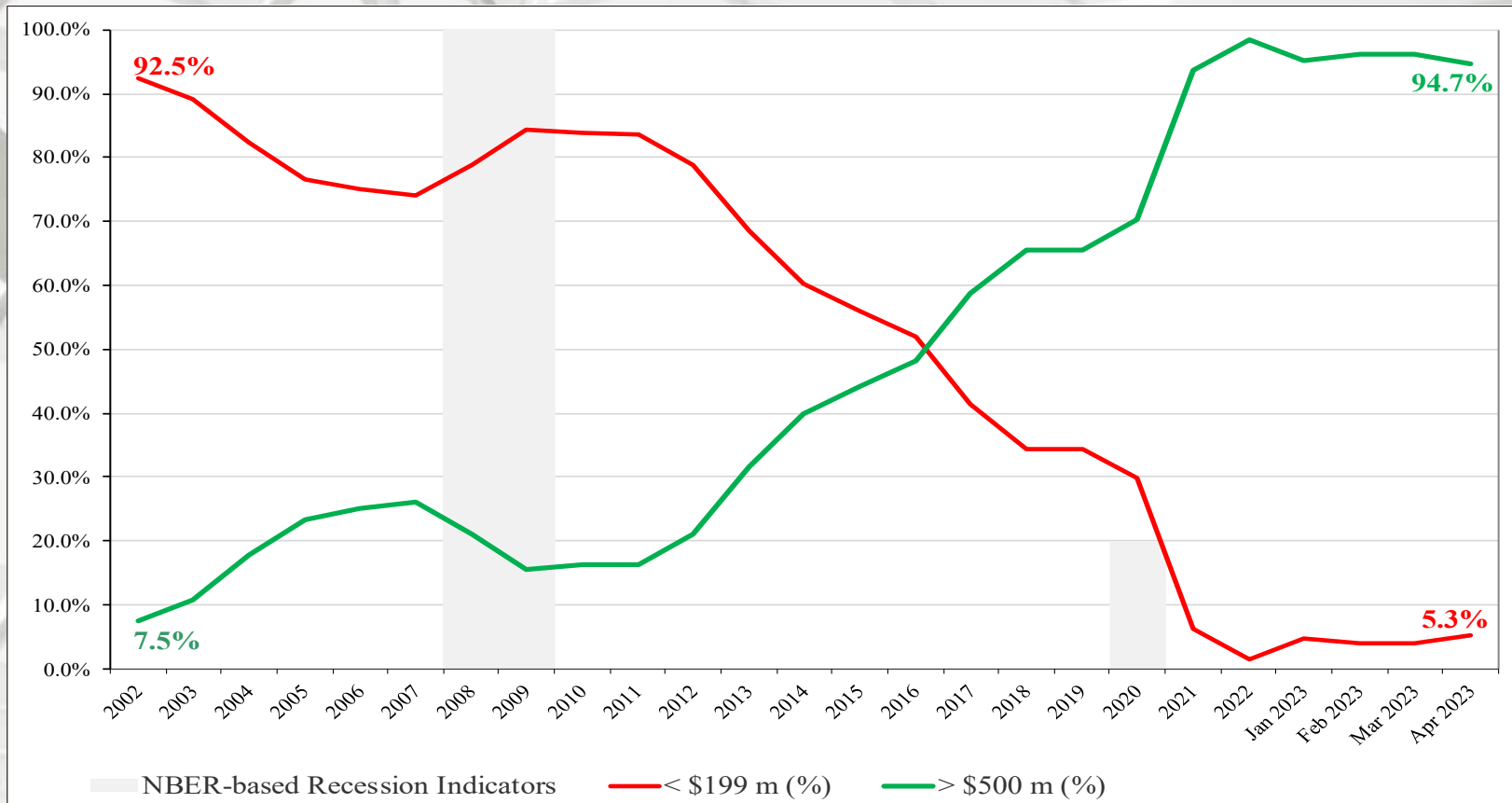


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: ≤ \$299m and ≥ \$400m: 2002 – April 2023

The sales share of \$400 thousand plus SF houses is presented above^{1, 2}. Since the beginning of 2012, the upper priced houses have and are garnering a greater percentage of sales. A decreasing spread indicates that more high-end luxury homes are being sold. Several reasons are offered by industry analysts; 1) builders can realize a profit on higher priced houses; 2) historically low interest rates have indirectly resulted in increasing house prices; and 3) purchasers of upper end houses fared better financially coming out of the Great Recession.

New SF House Sales

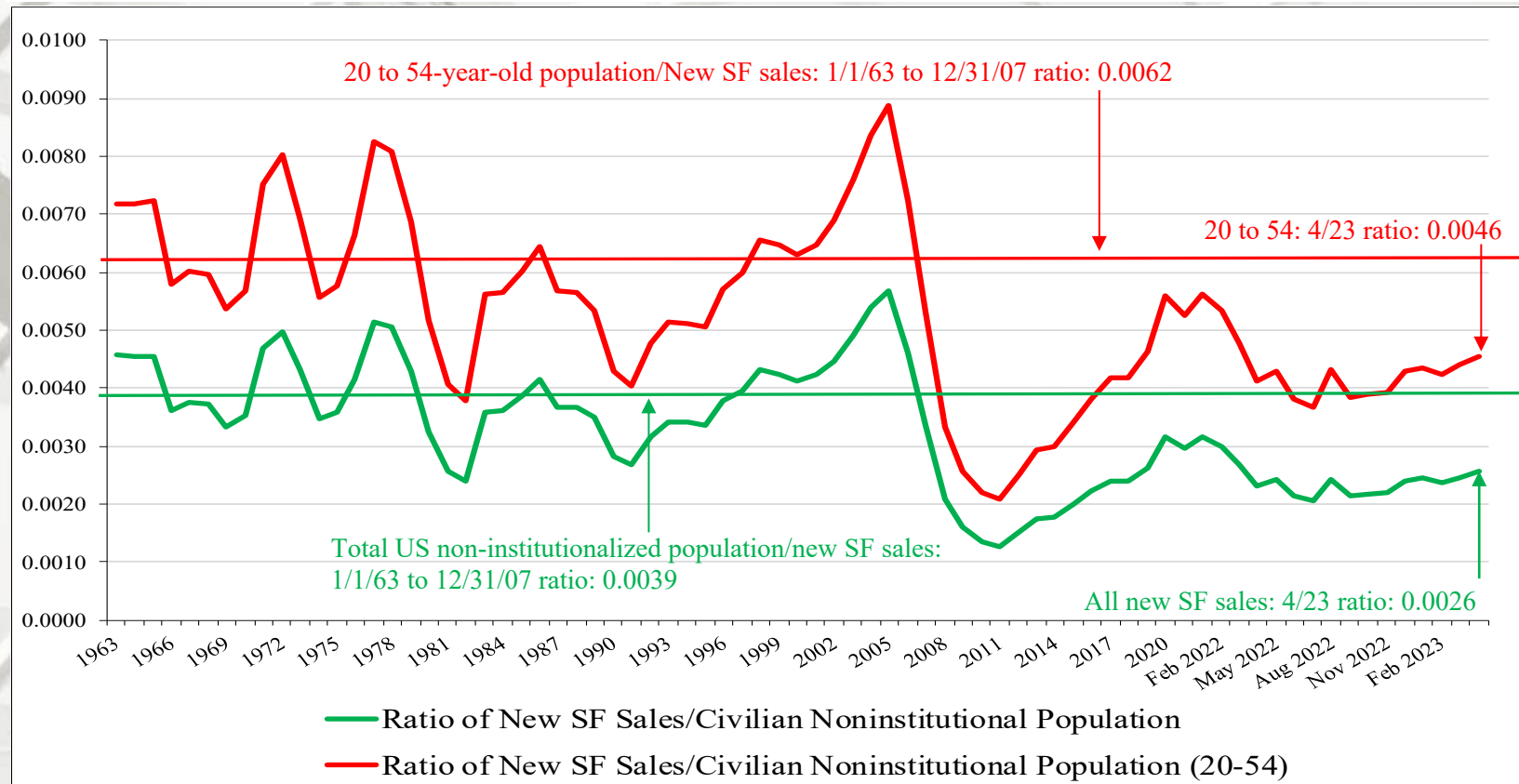


New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to April 2022

The number of ≤ \$200 thousand SF houses has declined dramatically since 2002^{1, 2}. Subsequently, from 2012 onward, the ≥ \$500 thousand class has soared (on a percentage basis) in contrast to the ≤ \$200 thousand class. Oft mentioned reasons for this occurrence is builder net margins, affordability, and purchase of new houses for rent – single-family rentals.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales

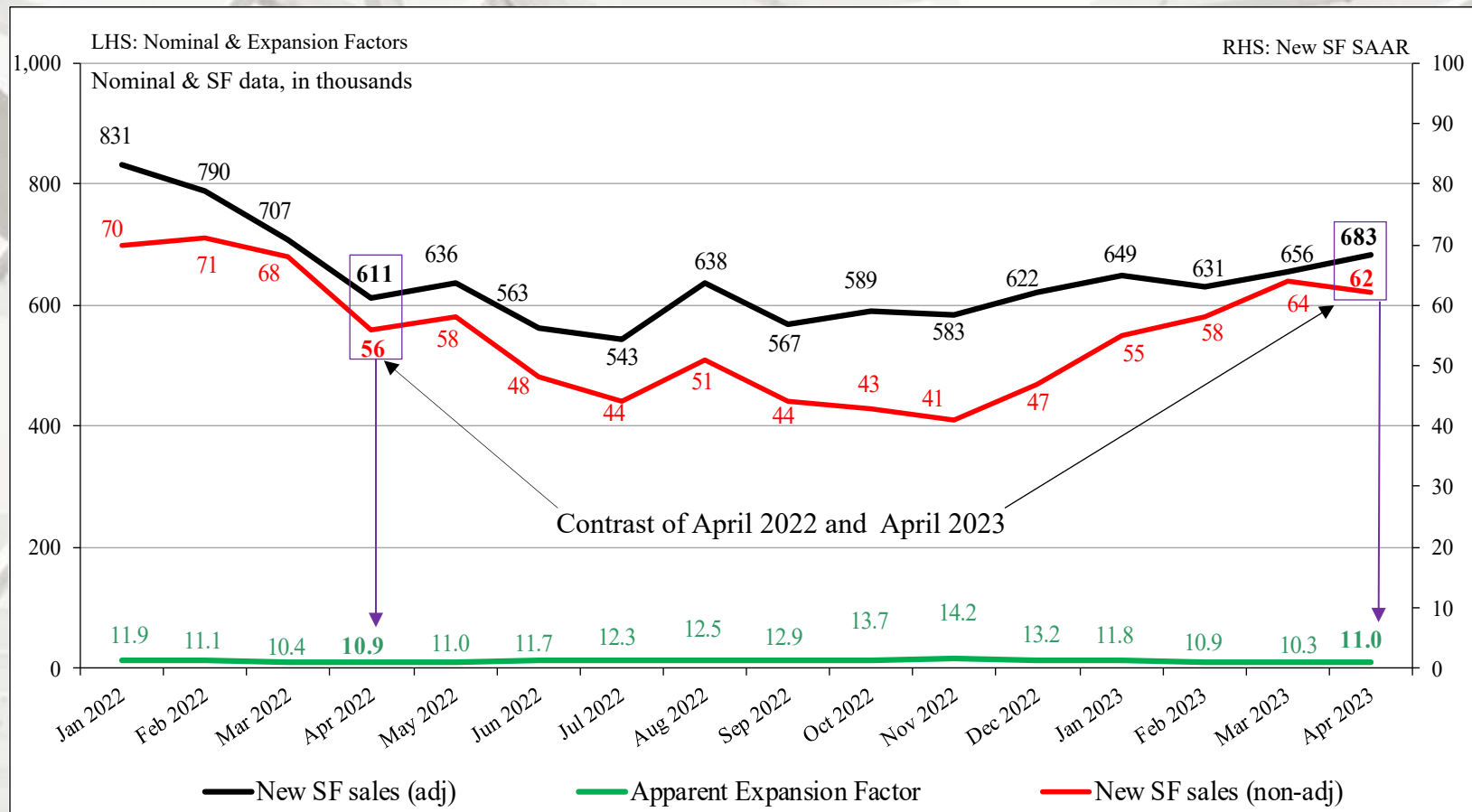


New SF sales adjusted for the US population

From January 1963 to December 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in April 2023 it was 0.0026 – a slight improvement from March (0.0025). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in April 2023 it was 0.0046 – also an improvement from March (0.0044). All are non-adjusted data. From a non-institutionalized population world view, new sales remain less than the long-term average.

On a long-term basis, some studies peg normalized long-term demand at 900,000 to 1,000,000 new SF house sales per year beginning in 2025 through 2050.

Nominal vs. SAAR New SF House Sales



Nominal and Adjusted New SF Monthly Sales

Presented above is nominal (non-adjusted) new SF sales data contrasted against SAAR data.

The apparent expansion factor "...is the ratio of the unadjusted number of houses sold in the US to the seasonally adjusted number of houses sold in the US (i.e., to the sum of the seasonally adjusted values for the four regions)." – U.S. DOC-Construction

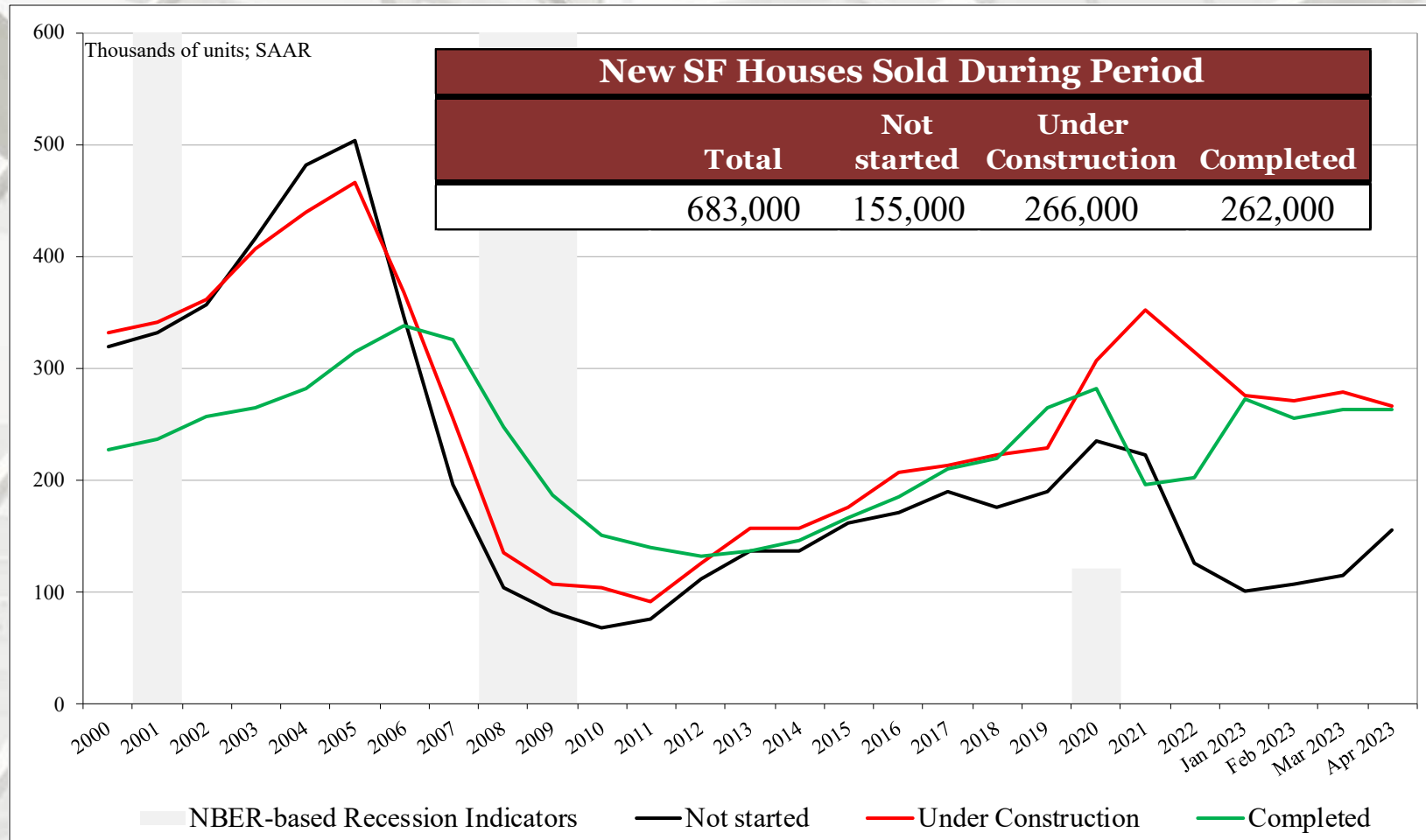
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
April	683,000	155,000	266,000	262,000
March	656,000	115,000	279,000	262,000
2022	434,000	100,000	300,000	34,000
M/M change	4.1%	34.8%	-4.7%	0.0%
Y/Y change	57.4%	55.0%	-11.3%	670.6%
Total percentage		22.7%	38.9%	38.4%

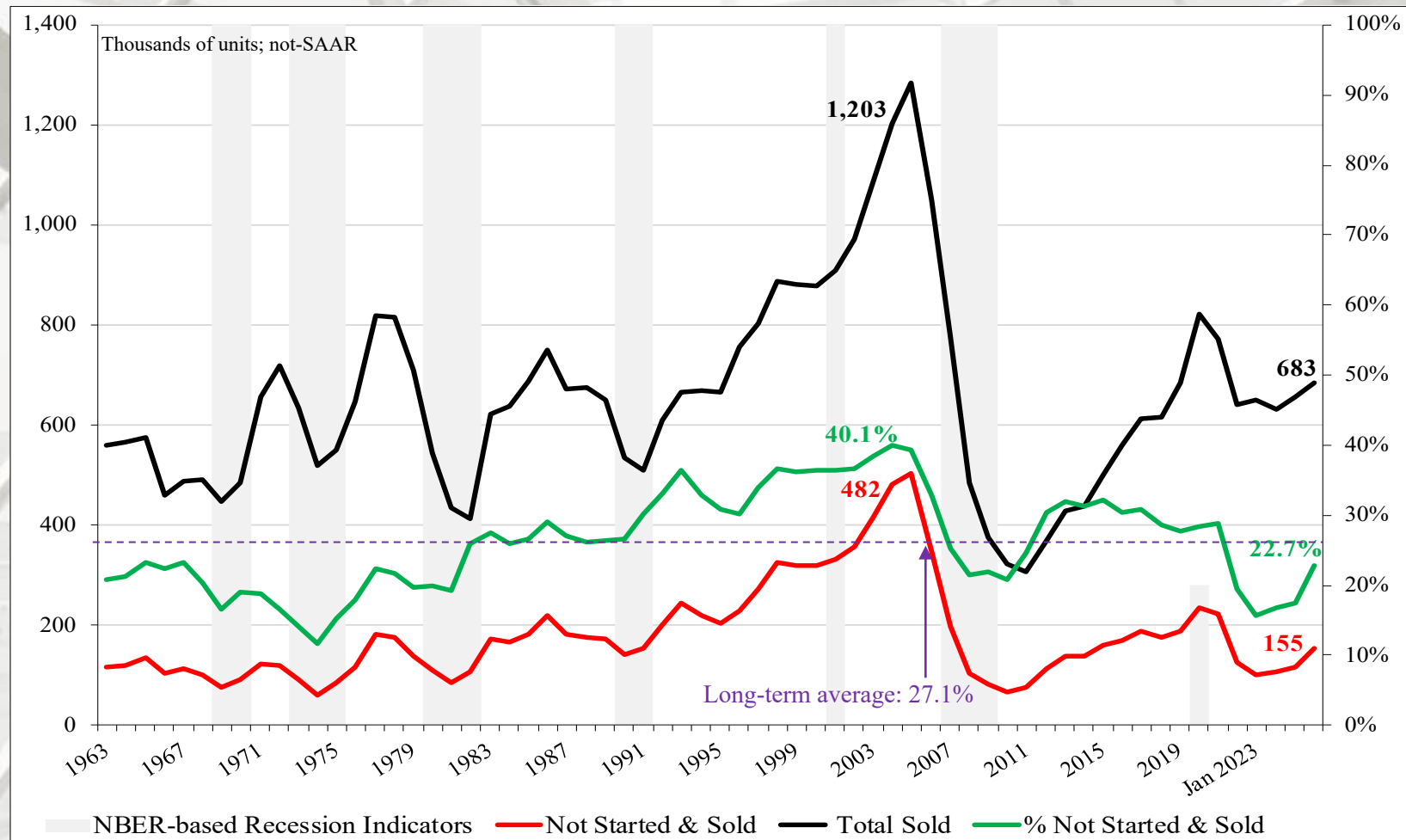
All data is SAAR

New SF House Sales: Sold During Period



* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF House Sales: Percentage Not Started & Sold During Period



Of the new houses sold in April (683 m), 22.7% (155 m) had not been started and sold. The long-term average is 27.1%.

* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Houses for Sale

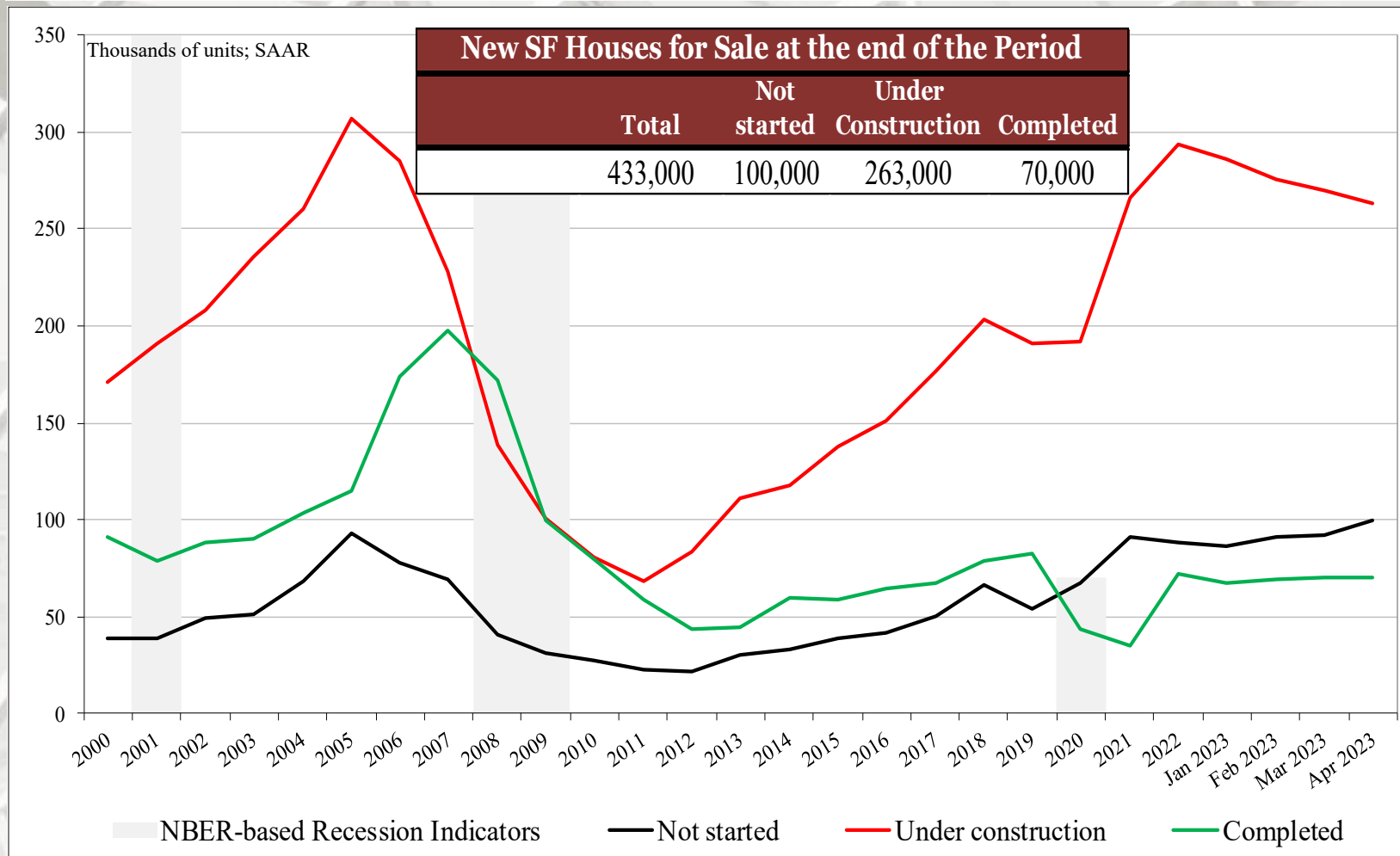
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
April	433,000	100,000	263,000	70,000
March	432,000	92,000	270,000	70,000
2022	434,000	100,000	300,000	34,000
M/M change	0.2%	8.7%	-2.6%	0.0%
Y/Y change	-0.2%	0.0%	-12.3%	105.9%
Total percentage		23.1%	60.7%	16.2%

Not SAAR

Of houses listed for sale (433 m) in April, 16.1% (70 m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 100 m (23.1%) were sold.

New SF House Sales: For Sale at End of Period



NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

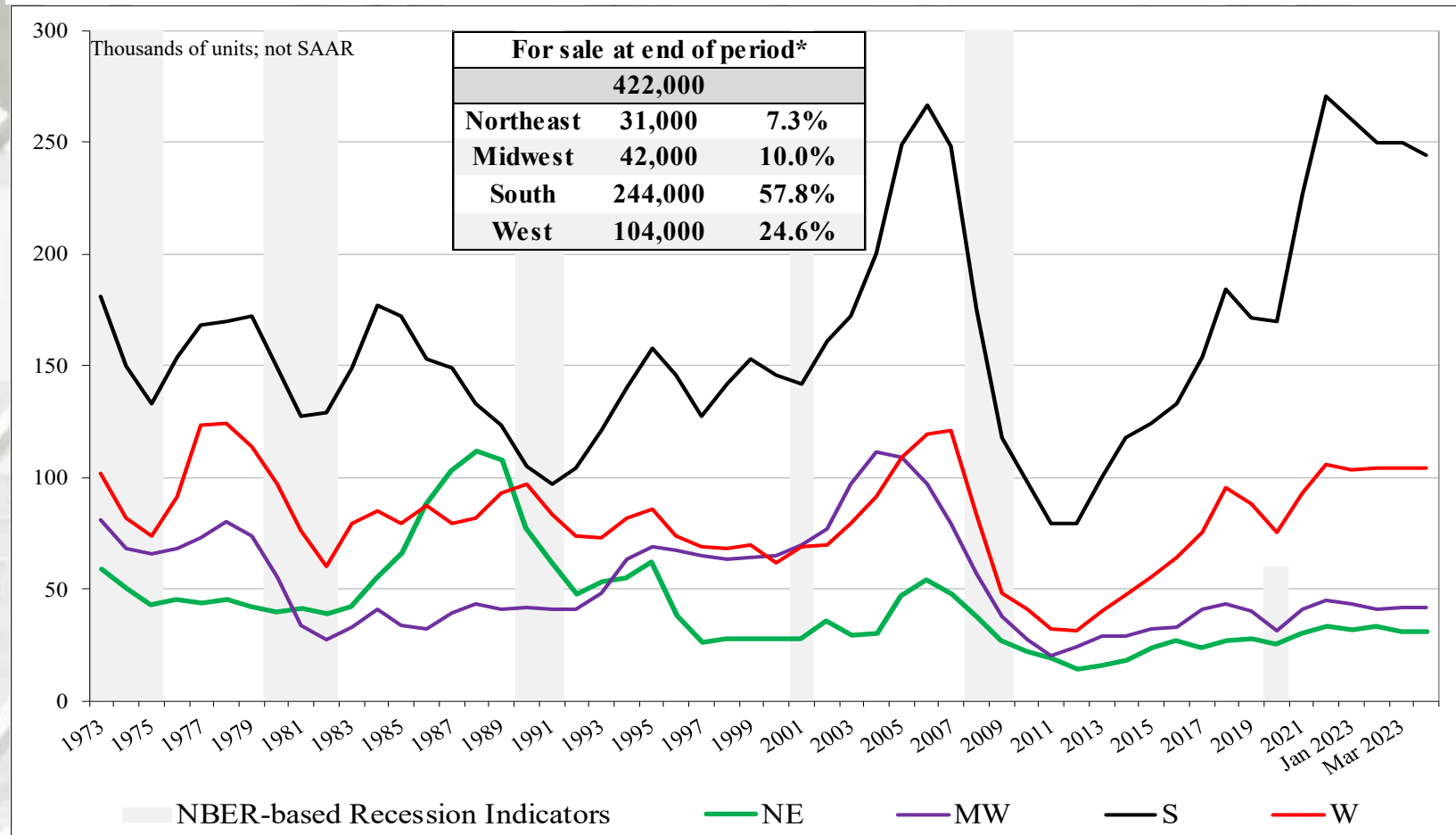
New SF House Sales

New SF Houses for Sale at the end of the Period by Region*

	Total	NE	MW	S	W
April	422,000	31,000	42,000	244,000	104,000
March	426,000	31,000	42,000	250,000	104,000
2022	425,000	24,000	44,000	256,000	100,000
M/M change	-0.9%	0.0%	0.0%	-2.4%	0.0%
Y/Y change	-0.7%	29.2%	-4.5%	-4.7%	4.0%

* Not SAAR

New SF Houses for Sale at End of Period by Region

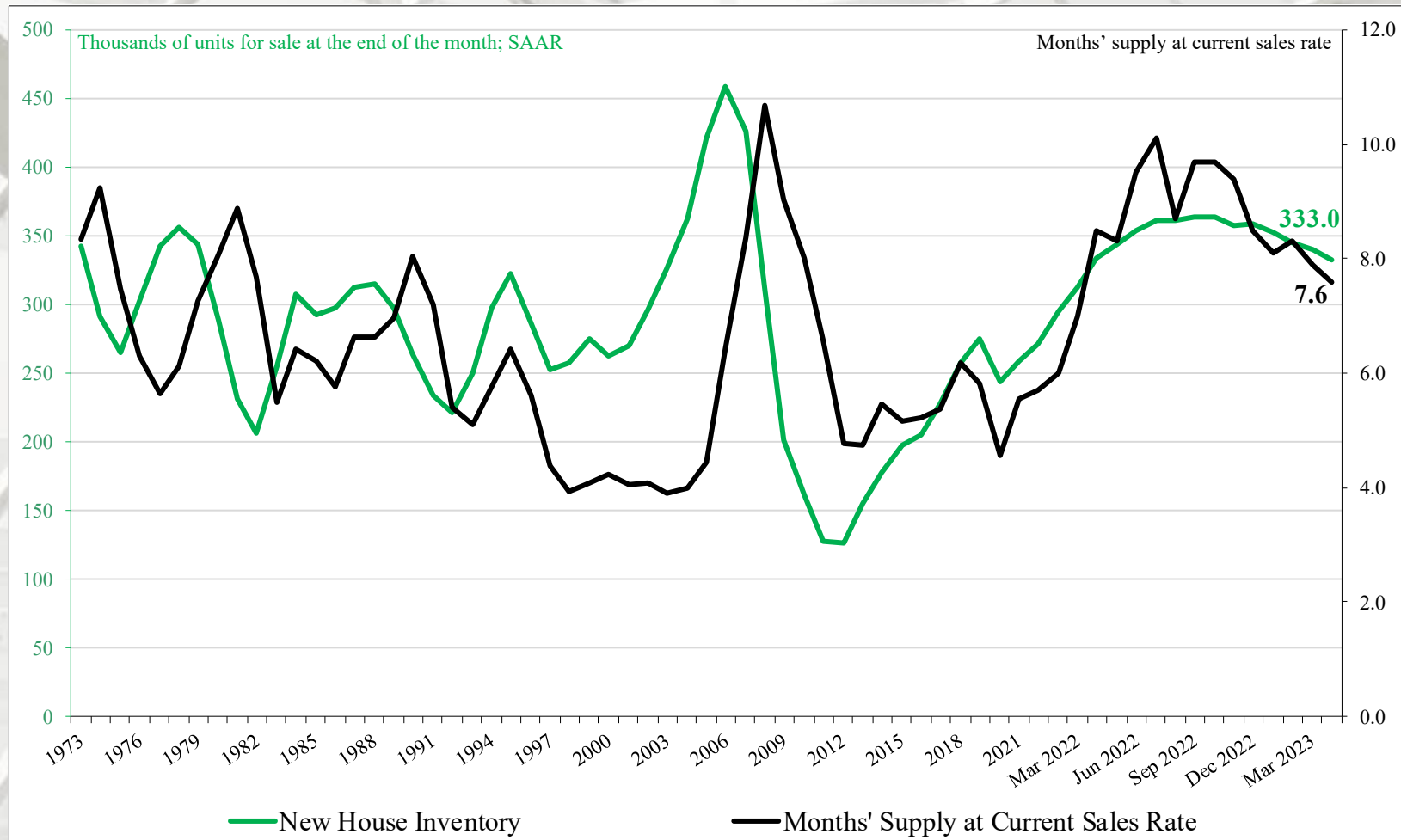


NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of new SF sales.

NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

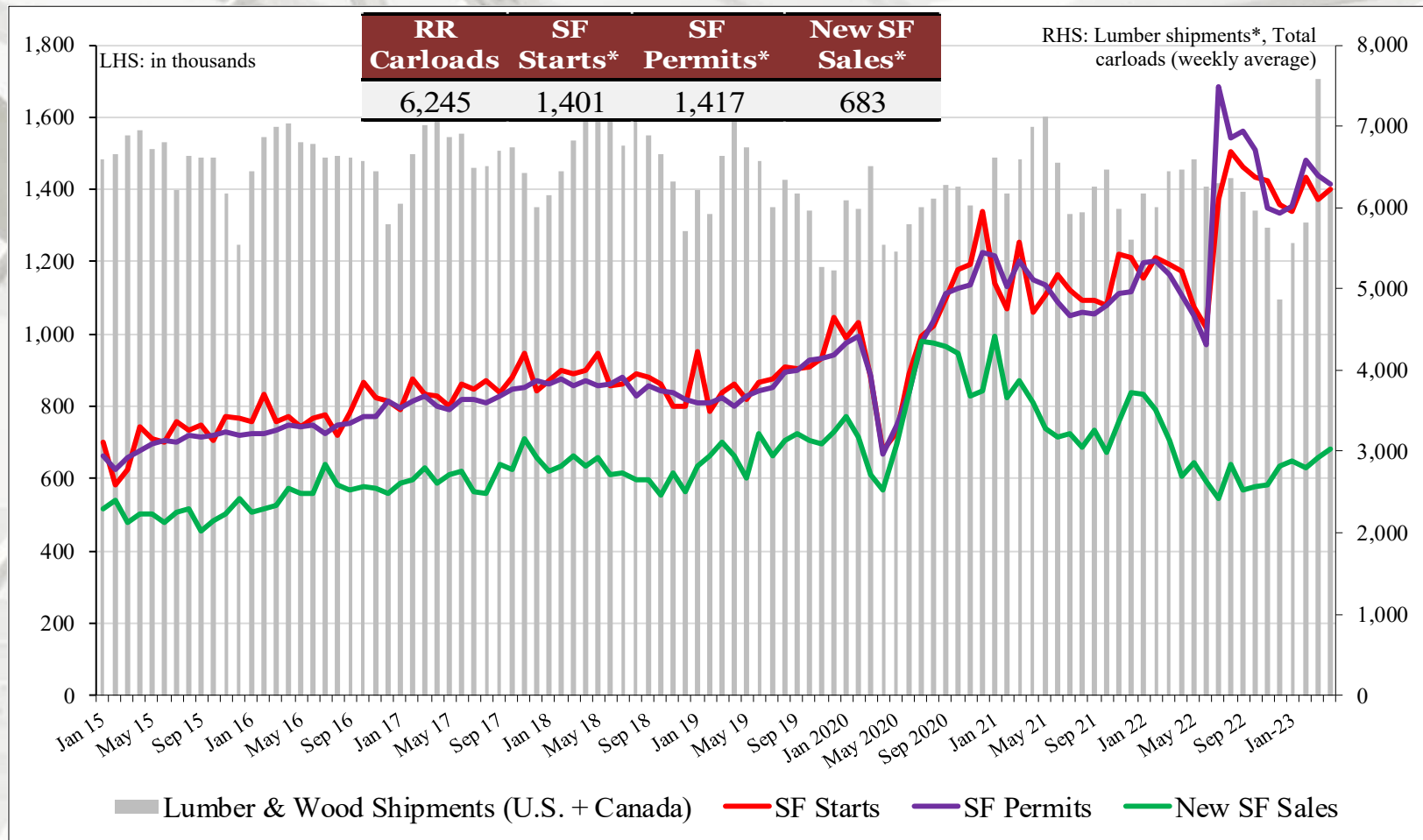
Months' Supply and New House Inventory^a



^a New HUC + New House Completions (sales data only)

The months' supply of new houses for sale at the end of April was 7.6, greater than the historically preferred number of five- to six-months (SAAR).

U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



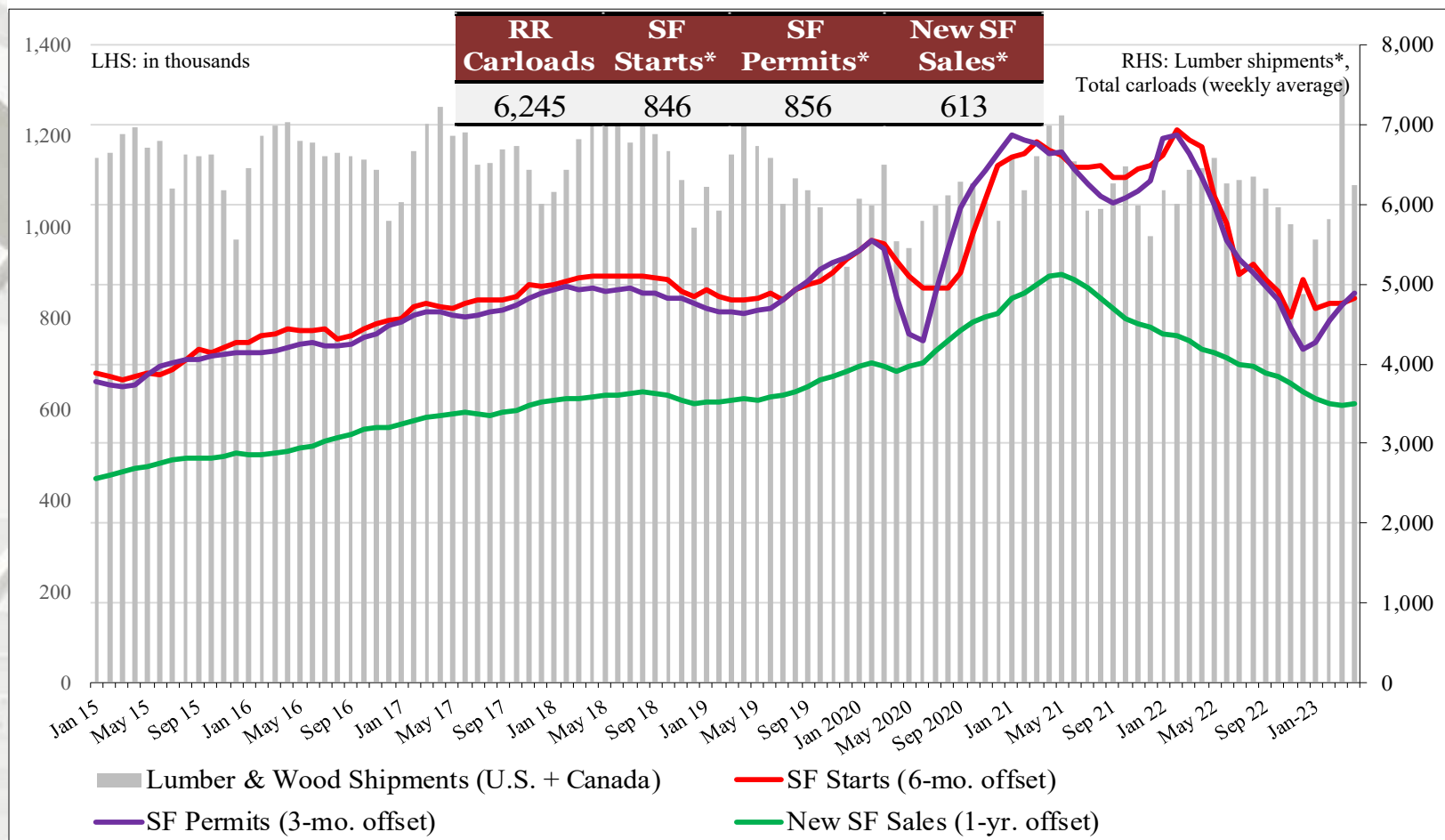
Carloads of Canadian + U.S. lumber and wood shipments to the U.S. are contrasted above to U.S. housing metrics. Annual SF starts, SF Permits, and New sales are compared to total carload lumber and wood shipments. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and new SF sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

* In thousands

Sources: *Association of American Railroads, *Rail Time Indicators* report-April 2022; <http://www.census.gov/construction/>; 5/17/23 & 5/23/23

Return TOC

U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



Carloads of Canadian + US lumber and wood shipments to the US are contrasted above to U.S. housing metrics. SF starts are off-set 6-months (a typical time-frame from permit issuance to actual start); Permits are off-set 3-months; and New sales are off-set 1-year. The intent is to discern if lumber shipments relate to future SF starts, SF permits, and New sales. It is realized that lumber and wood products are trucked; however, to our knowledge comprehensive and timely trucking data is not available.

* In thousands.

April 2022

Construction Spending

	Total Private Residential*	SF	MF	Improvement**
April	\$845,441	\$362,398	\$125,571	\$357,472
March	\$841,595	\$365,138	\$124,827	\$351,630
2022	\$931,545	\$481,022	\$100,519	\$350,004
M/M change	0.5%	-0.8%	0.6%	1.7%
Y/Y change	-9.2%	-24.7%	24.9%	2.1%

* millions.

** The US DOC does not report improvement spending directly, this is a monthly estimation: ((Total Private Spending – (SF spending + MF spending)).

All data are SAARs and reported in nominal US\$.

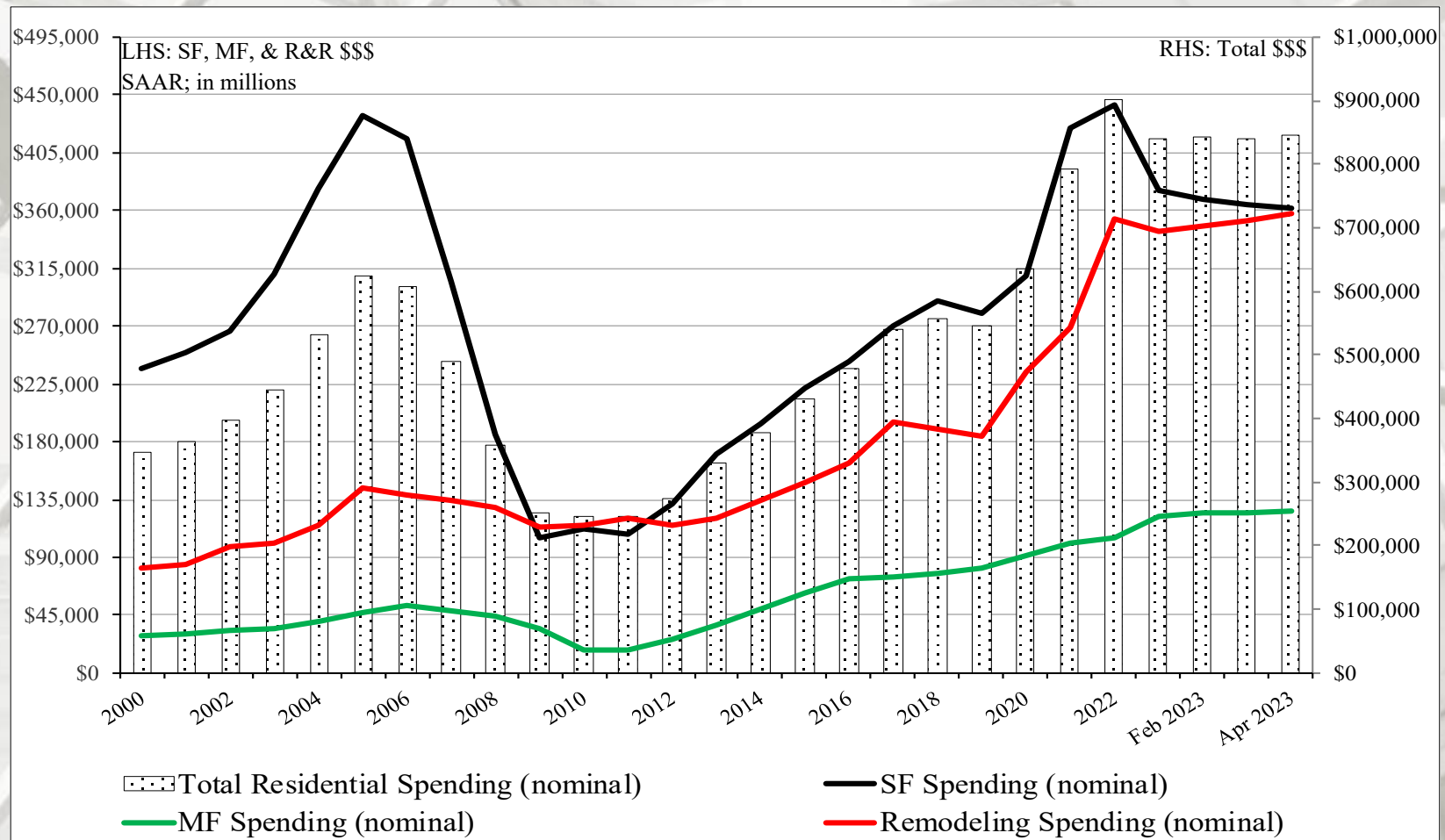
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

New single-family: new houses and town houses built to be sold or rented and units built by the owner or for the owner on contract. The classification excludes residential units in buildings that are primarily nonresidential. It also excludes manufactured housing and houseboats.

New multi-family includes new apartments and condominiums. The classification excludes residential units in buildings that are primarily nonresidential.

Improvements: Includes remodeling, additions, and major replacements to owner occupied properties subsequent to completion of original building. It includes construction of additional housing units in existing residential structures, finishing of basements and attics, modernization of kitchens, bathrooms, etc. Also included are improvements outside of residential structures, such as the addition of swimming pools and garages, and replacement of major equipment items such as water heaters, furnaces and central air-conditioners. Maintenance and repair work is not included.

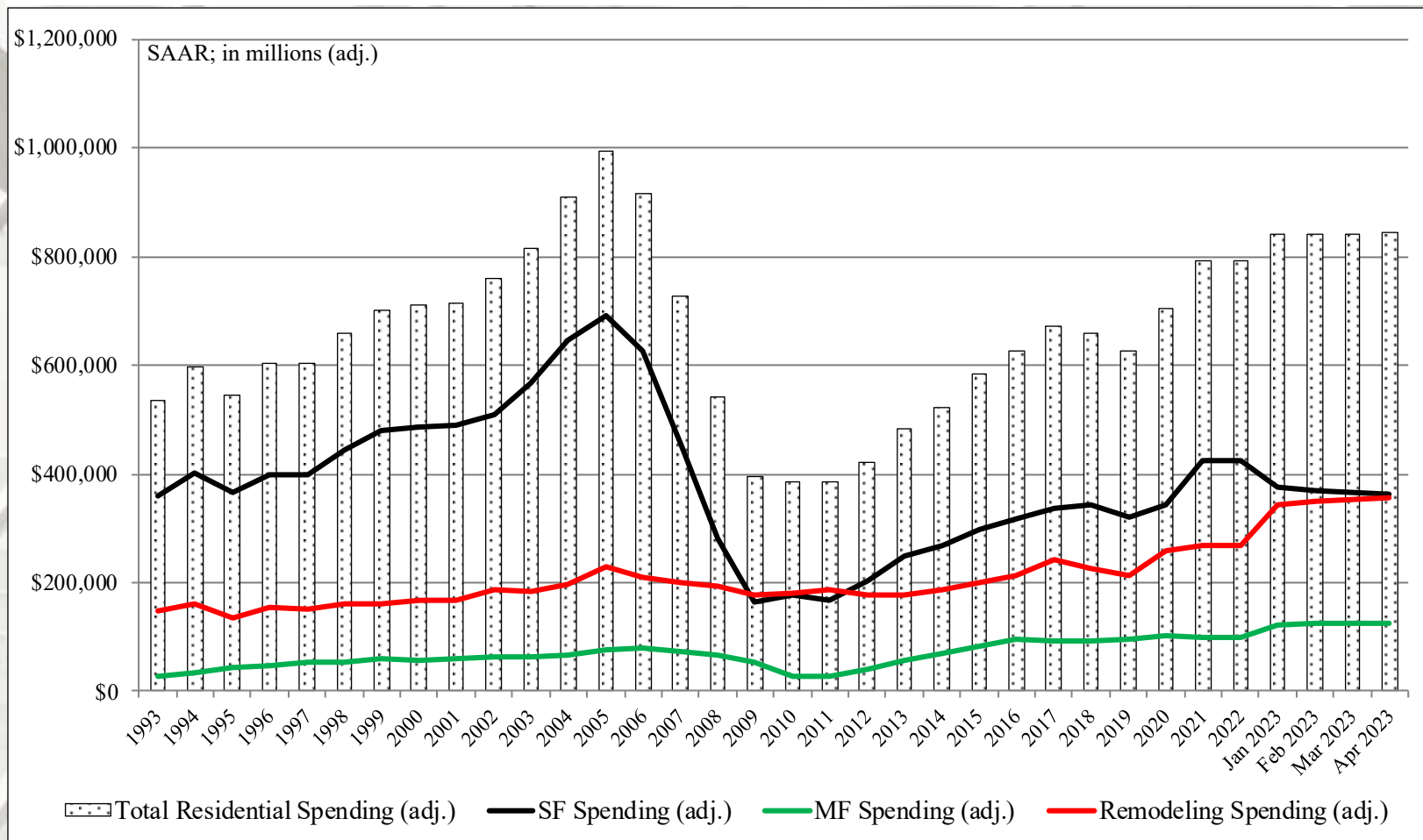
Total Construction Spending (nominal): 2000 – April 2023



Reported in nominal US\$.

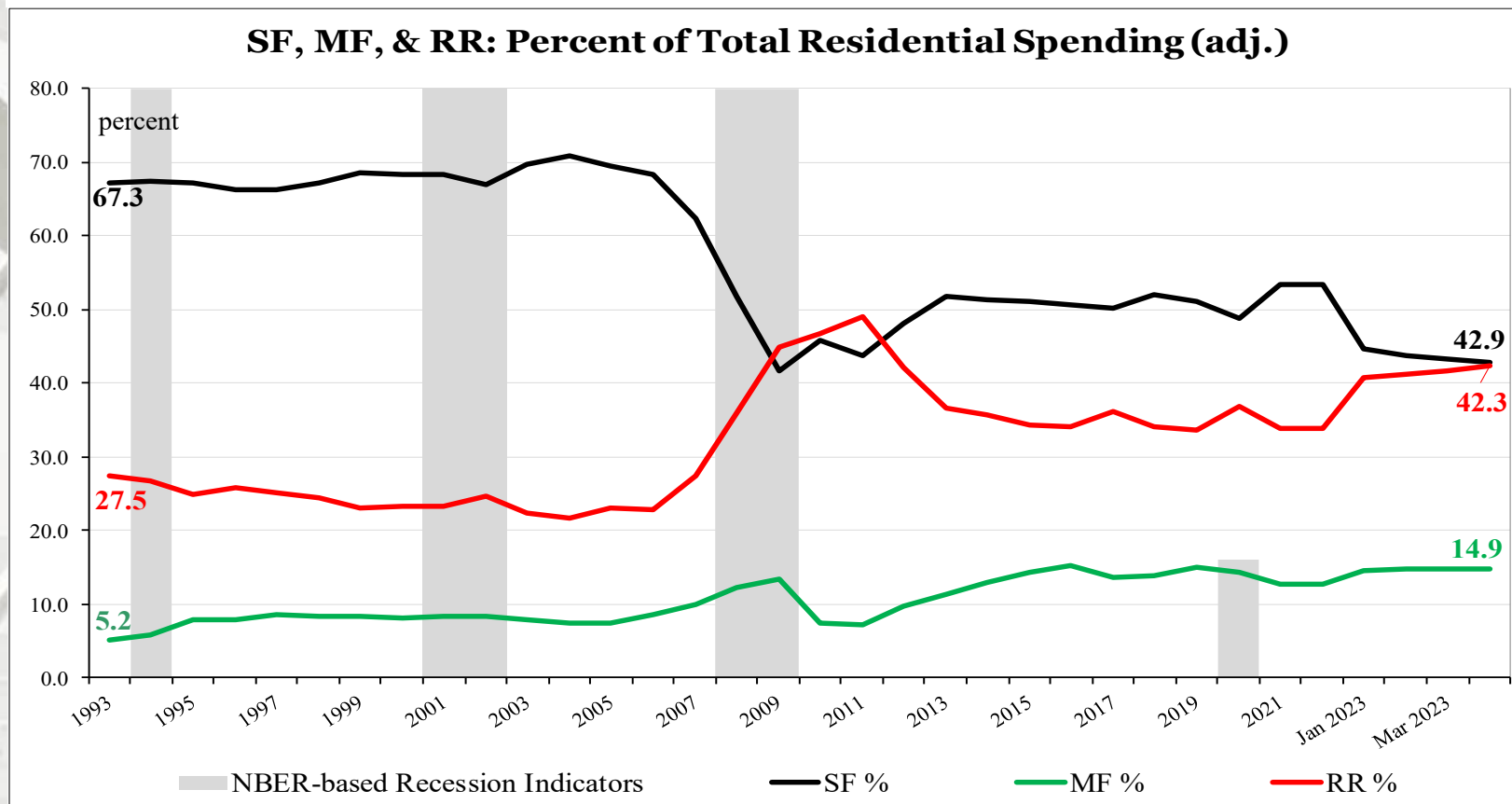
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – April 2023



Reported in adjusted \$US: 1993 – 2021 (adjusted for inflation, BEA Table 1.1.9); April to April 2022 reported in nominal US\$.

Construction Spending Shares: 1993 – April 2023



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

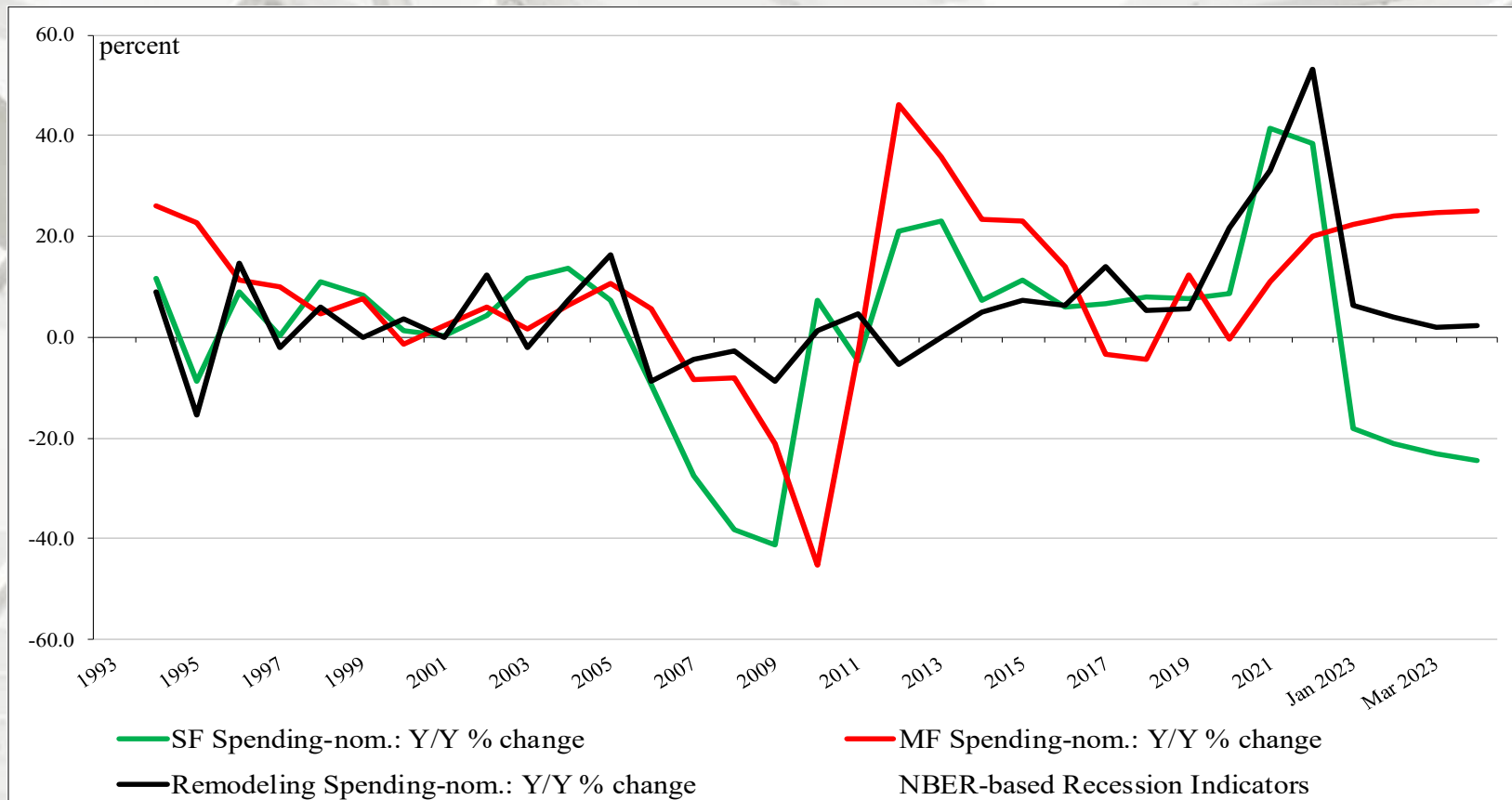
MF spending average: 7.5%

Residential remodeling (RR) spending average: 23.3% (SAAR).

Note: 1993 to 2021 (adjusted for inflation, BEA Table 1.1.9); April 2022 reported in nominal US\$.

* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Construction Spending: Y/Y Percentage Change

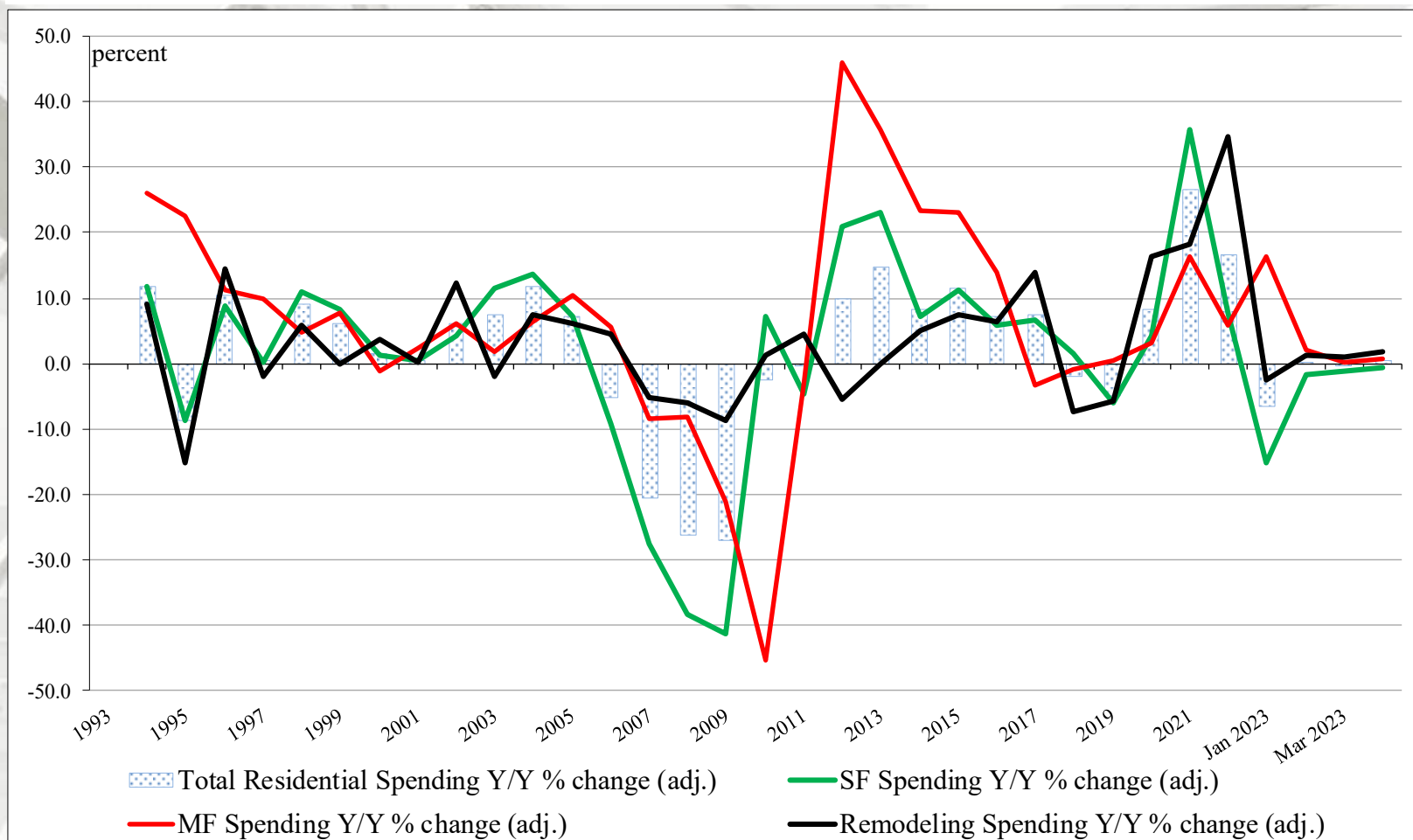


Nominal Residential Construction Spending: Y/Y percentage change, 1993 to April 2023

Presented above is the percentage change of Y/Y construction spending. MF and RR expenditures were positive on a percentage basis, year-over-year (April 2023 data reported in nominal dollars).

* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Adjusted Construction Spending: Y/Y Percentage Change

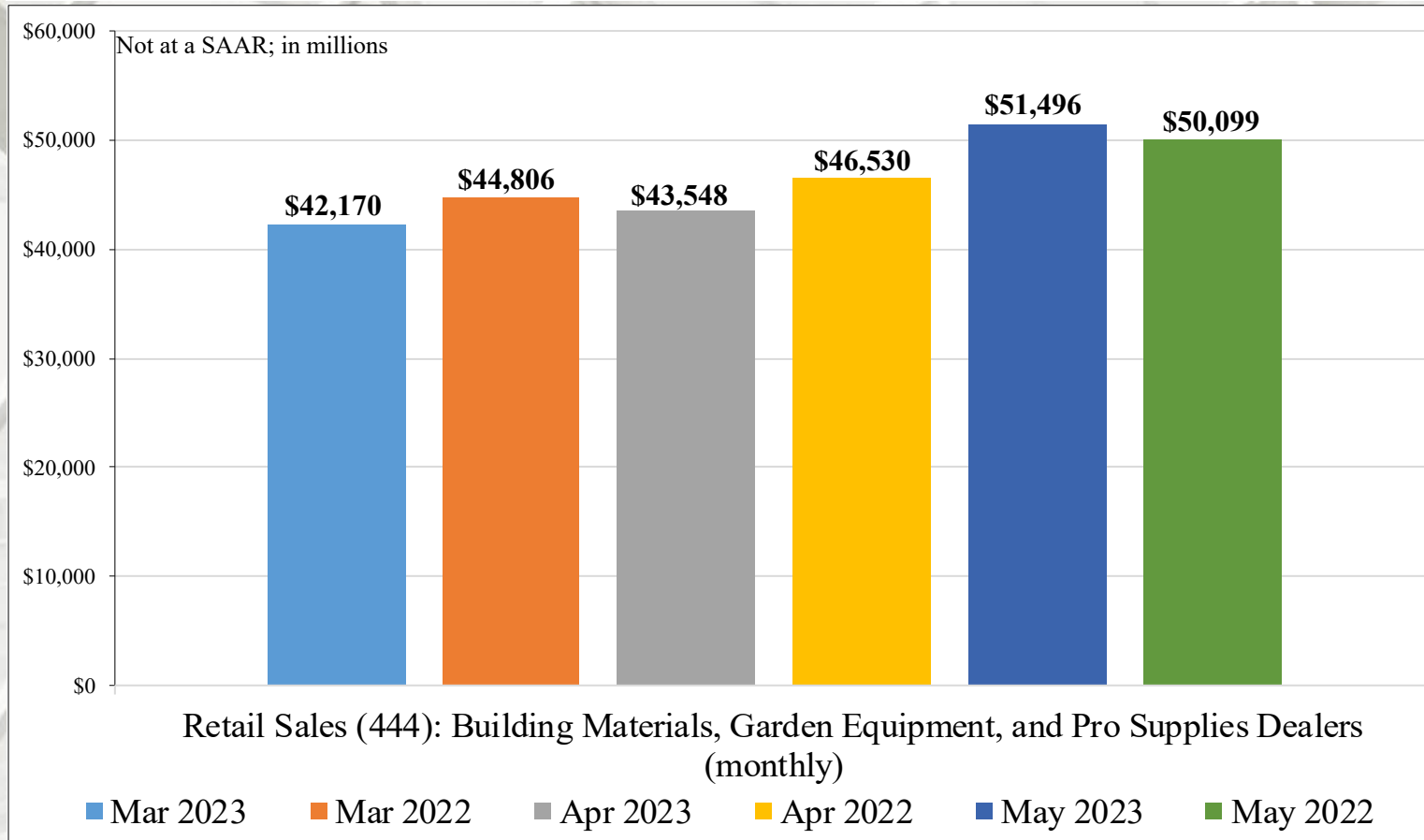


Adjusted Residential Construction Spending: Y/Y percentage change, 1993 to April 2023

* NBER based Recession Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Remodeling

Retail Sales: Building materials, Garden Equipment, & PRO Supply Dealers



Building materials, Garden Equipment, & PRO Supply Dealers: NAICS 444

NAICS 444 sales increased 18.3% in May 2023 from April 2023 and improved 2.8% Y/Y (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 3.4% in April 2023 from March 2023 and improved 4.1% in April 2023 from April 2022 (on a non-adjusted basis).

Remodeling

John Burns Research and Consulting, LLC

\$12 Billion Remodeling Boost

“The \$490 billion repair and remodeling business (details are available in our [Building Product Analysis and Forecast report](#)) just got a 2.5% (\$12 billion per year) boost thanks to [The Inflation Reduction Act’s Federal Tax Credits for energy-saving building products](#). This is the first major change to federal energy efficiency tax credits available to households in over a decade and will boost demand for remodels involving energy efficiency upgrades to the home.

Here’s what has changed:

1. **Maximum tax credit substantially raised:** Cap raised to \$1,200 **per year** for qualifying property on or after January 1, 2023, compared to a **lifetime** \$500 cap previously.
2. **Now an annual limit, not a lifetime limit.** Energy efficiency tax credits are now available annually for up to \$1,200 per year. Savvy households can spread qualifying home improvement spending over a 10-year period, receiving up to \$12,000 back in taxes, compared to \$500 previously.
3. These tax credits will materially **boost remodeling spending** on building product categories that **improve** the energy efficiency of the home.

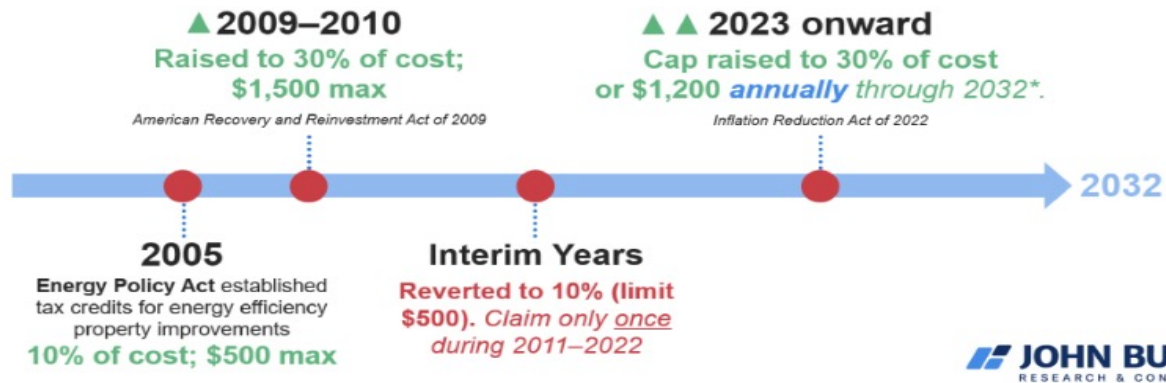
Expecting a minimum \$12 billion annual uplift to remodeling spending:

The last time a major federal tax credit was introduced for energy efficiency upgrades was in 2009 as part of the American Recovery and Reinvestment Act. We analyzed the change in the incidence of spending across eligible products before and after the act’s introduction. Assuming a similar increase in remodeling activity to that which occurred following the introduction of those tax credits, we forecast a minimum \$12 billion annual increase in remodeling spending.” – Matt Saunders, Senior Vice President and Elizabeth LaJeunesse, Senior Manager, Research, Building Products; John Burns Research and Consulting, LLC

Remodeling











John Burns Research and Consulting, LLC

History of US Homeowner Tax Credits for Energy Efficiency Improvements



Inflation Reduction Act of 2022: Residential Energy Efficiency Tax Credit Eligible Products

JOHN BURNS
RESEARCH & CONSULTING

 Biomass stove	 Heat pump / heat pump water heater	 Furnace/boiler	 Central A/C	 Water heater	 Electrical	 Insulation / air sealing	 Window/skylight	 Exterior doors	 Roofing
30% of cost up to \$2,000 can be layered on top of \$1.2K for other items for a total \$3,200		30% of cost up to \$1,200 combined limit (covers building envelope)				30% up to \$600	30% up to \$500	Not eligible	

See tax credit fact sheet (IRS), list of eligible HVAC products (AHRI), and frequently asked questions (IRS).
Source: John Burns Research and Consulting, LLC (Pub: Apr-23)

Remodeling

Estimated Annual Impact of Federal Tax Credit Program Spending	
Energy Efficiency Property Segment	Uplift to annual spend*
HVAC	+\$5.8B
Windows / Doors	+\$3.6B
Electrical	+\$1.6B
Insulation	+\$1.6B
Estimated Annual Impact (Billions \$):	+\$12.6B
<small>Note: * For qualifying categories, assumes similar impact (1.0 percentage point) increase in homeowner project incidence rate as post-American Recovery and Reinvestment Act. Sources: American Housing Survey (2021); John Burns Research and Consulting, LLC (Pub: Apr-23)</small>	



John Burns Research and Consulting, LLC \$12 Billion Remodeling Boost

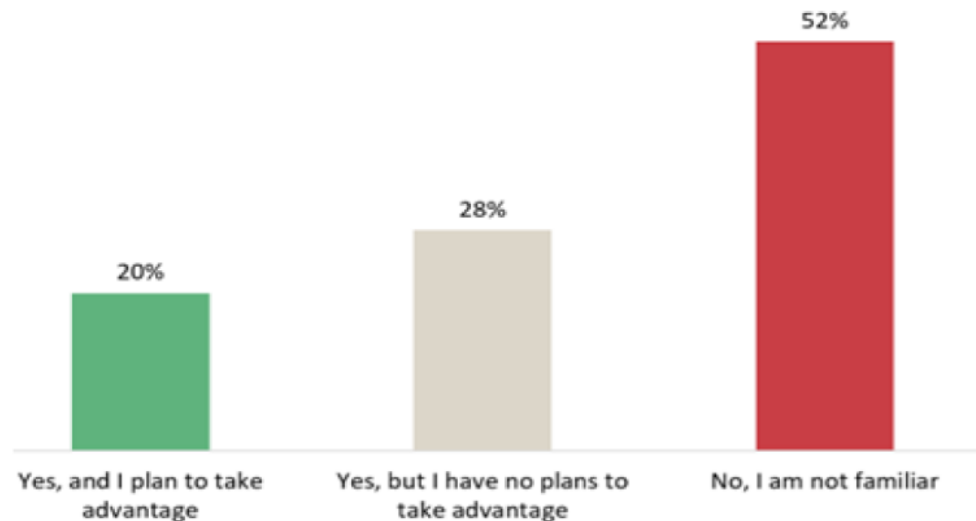
Impact potentially higher through industry marketing

“We think there is upside potential to the \$12 billion per year as well. Surveys indicate that both households and contractors express very low levels of familiarity with the program, which can change once industry groups spend money promoting the credits that also reduce utility expenses.” – Matt Saunders, Senior Vice President and Elizabeth LaJeunesse, Senior Manager, Research, Building Products; John Burns Research and Consulting, LLC

Source: <https://www.jchs.harvard.edu/press-releases/home-remodeling-market-projected-contract-2024>; 5/19/23

Remodeling

Are you familiar with tax credits and deductions for investment in residential clean energy and efficiency covered by the Inflation Reduction Act? (%)



Note: November 2022 survey of 1,263 homeowners and single-family renters with household income of \$50K+.
Source: John Burns Research and Consulting, LLC (Pub: Apr-23)

JOHN BURNS
RESEARCH & CONSULTING

John Burns Research and Consulting, LLC

\$12 Billion Remodeling Boost

Impact potentially higher through industry marketing

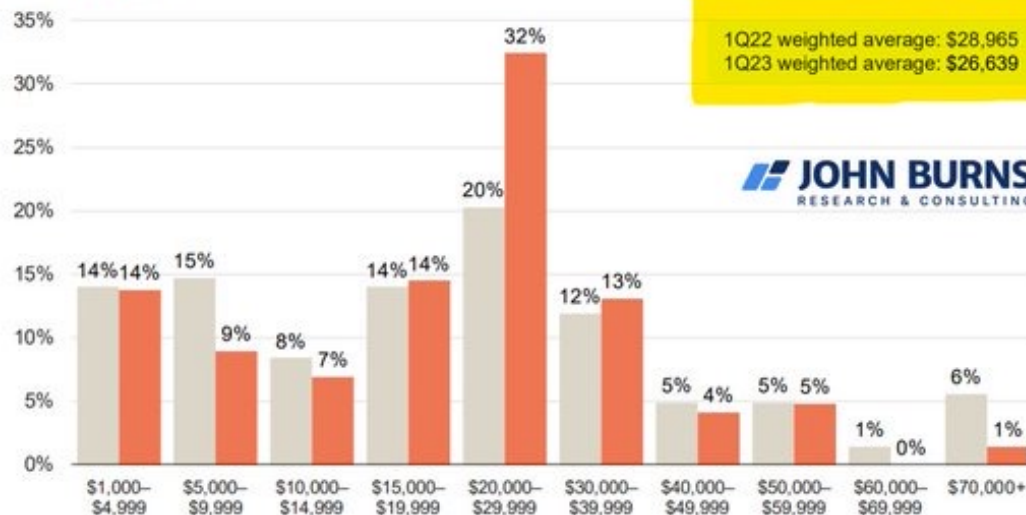
“Many of our building products clients have been developing energy-efficient materials for years since they saw the potential for consumer demand and government mandate. We expect those with the best products and the best marketing to take market share over the next few years.” – Matt Saunders, Senior Vice President and Elizabeth LaJeunesse, Senior Manager, Research, Building Products; John Burns Research and Consulting, LLC

Remodeling

Single-family rental investors spent -8% less on renovations for every newly acquired home, vs. last year

On average, what did you spend on renovation/repairs for each SFR home acquired in the last 12 months?

■ 1Q22 ■ 1Q23



Source: John Burns Research and Consulting, LLC (Survey ran May 1-22, 2023)

As seen in *Burns Single-Family Rental Survey*

John Burns Research and Consulting, LLC

Single-family rental investors spent -8% less on renovations

“Single-family rental investors spent -8% less on renovations for every newly acquired home vs. a year ago. Add in the decline in SFR investor purchases over the past year, and you start to see one big reason why demand for residential building products is falling right now.” – Eric Finnigan, VP of Research & Demographics; John Burns Research and Consulting, LLC

Source: <https://twitter.com/EricFinnigan/status/1665870593722314752>; 6/5/23

Return TOC

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
April	4,280,000	\$388,800	2.9
March	4,430,000	\$375,400	2.6
2022	5,570,000	\$395,500	2.2
M/M change	-3.4%	3.6%	11.5%
Y/Y change	-23.2%	-1.7%	31.8%

All sales data: SAAR

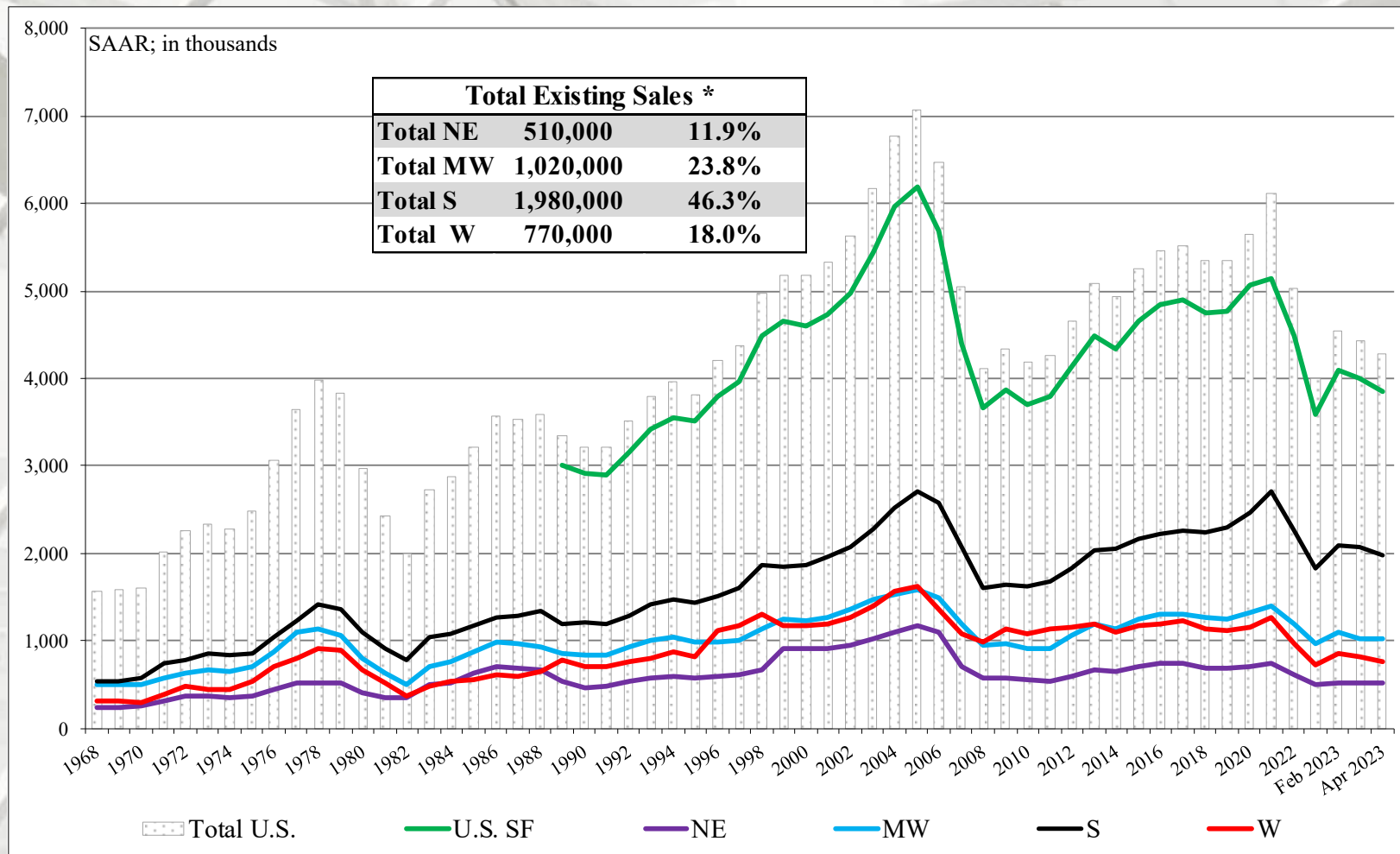
Existing House Sales

	NE	MW	S	W
April	510,000	1,020,000	1,980,000	770,000
March	520,000	1,030,000	2,070,000	820,000
2022	670,000	1,300,000	2,480,000	1,120,000
M/M change	-1.9%	-1.0%	-4.3%	-6.1%
Y/Y change	-23.9%	-21.5%	-20.2%	-31.3%

	Existing SF Sales	SF Median Price
April	3,850,000	\$393,300
March	3,990,000	\$380,000
2022	4,960,000	\$401,700
M/M change	-3.5%	3.6%
Y/Y change	-22.4%	-2.1%

All sales data: SAAR.

Existing House Sales



NE = Northeast; MW = Midwest; S = South; W = West

* Percentage of total existing sales.

Federal Housing Finance Agency

U.S. House Price Index

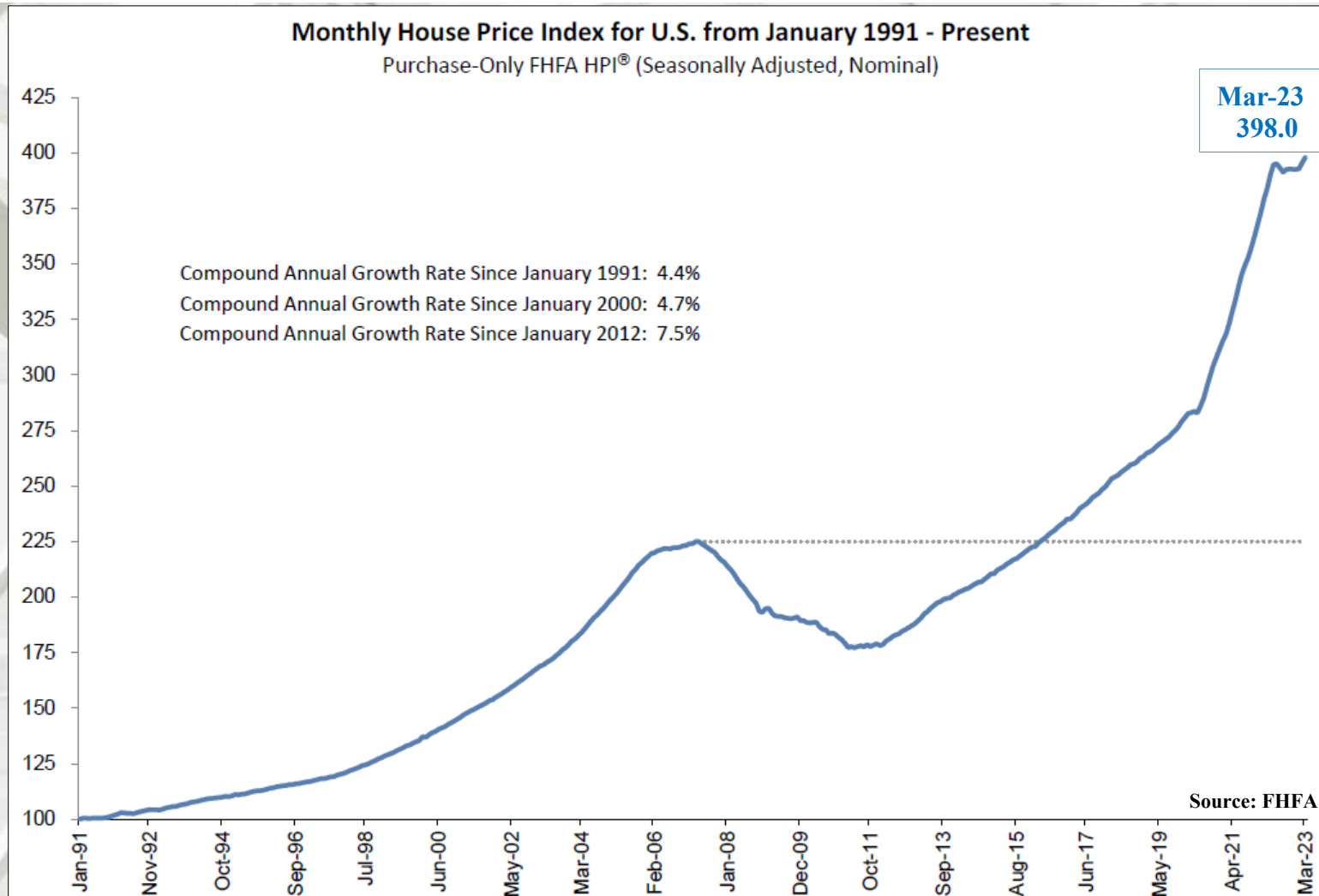
U.S. House Prices Rise 4.3 Percent over the Last Year; Up 0.5 Percent from the Fourth Quarter

Significant Findings

“U.S. house prices rose **4.3 percent** between the first quarters of 2022 and 2023, according to the Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI®). House prices were up **0.5 percent** compared to the fourth quarter of 2022. FHFA’s seasonally adjusted monthly index for March was up **0.6 percent** from February.

- Nationally, the U.S. housing market has experienced positive annual appreciation each quarter since the start of 2012.
- House prices rose in 43 states between the first quarters of 2022 and 2023. The five areas with the highest annual appreciation were 1) **South Carolina**, 9.5 percent; 2) **North Carolina**, 9.4 percent; 3) **Maine**, 8.9 percent; 4) **Vermont**, 8.8 percent; and 5) **Arkansas**, 8.8 percent. The areas showing the highest annual depreciation were 1) **Utah**, -4.3 percent; 2) **Nevada**, -3.6 percent; 3) **California**, -2.9 percent; 4) **Washington**, -2.6 percent; and 5) **District of Columbia**, -2.3 percent.
- House prices rose in 78 of the top 100 largest metropolitan areas over the last four quarters. The annual price increase was greatest in **Miami-Miami Beach-Kendall, FL** at 14.1 percent. The metropolitan area that experienced the greatest price decline was **San Francisco-San Mateo-Redwood City, CA (MSAD)** at -10.1 percent.
- Of the seven census divisions with positive house price changes, the **South Atlantic** division recorded the strongest four-quarter appreciation, posting a 7.2 percent increase between the first quarters of 2022 and 2023. House prices depreciated in two census divisions. The annual house price decreased by 2.4 percent in the **Pacific** division and by 0.1 percent in the **Mountain** division.
- Trends in the Top 100 Metropolitan Statistical Areas are available in our interactive dashboard: <https://www.fhfa.gov/DataTools/Tools/Pages/FHFA-HPI-Top-100-Metro-Area-Rankings.aspx>. The first tab displays rankings while the second tab offers charts.” – Raffi Williams and Adam Russell, FHFA

U.S. Housing Prices



Federal Housing Finance Agency

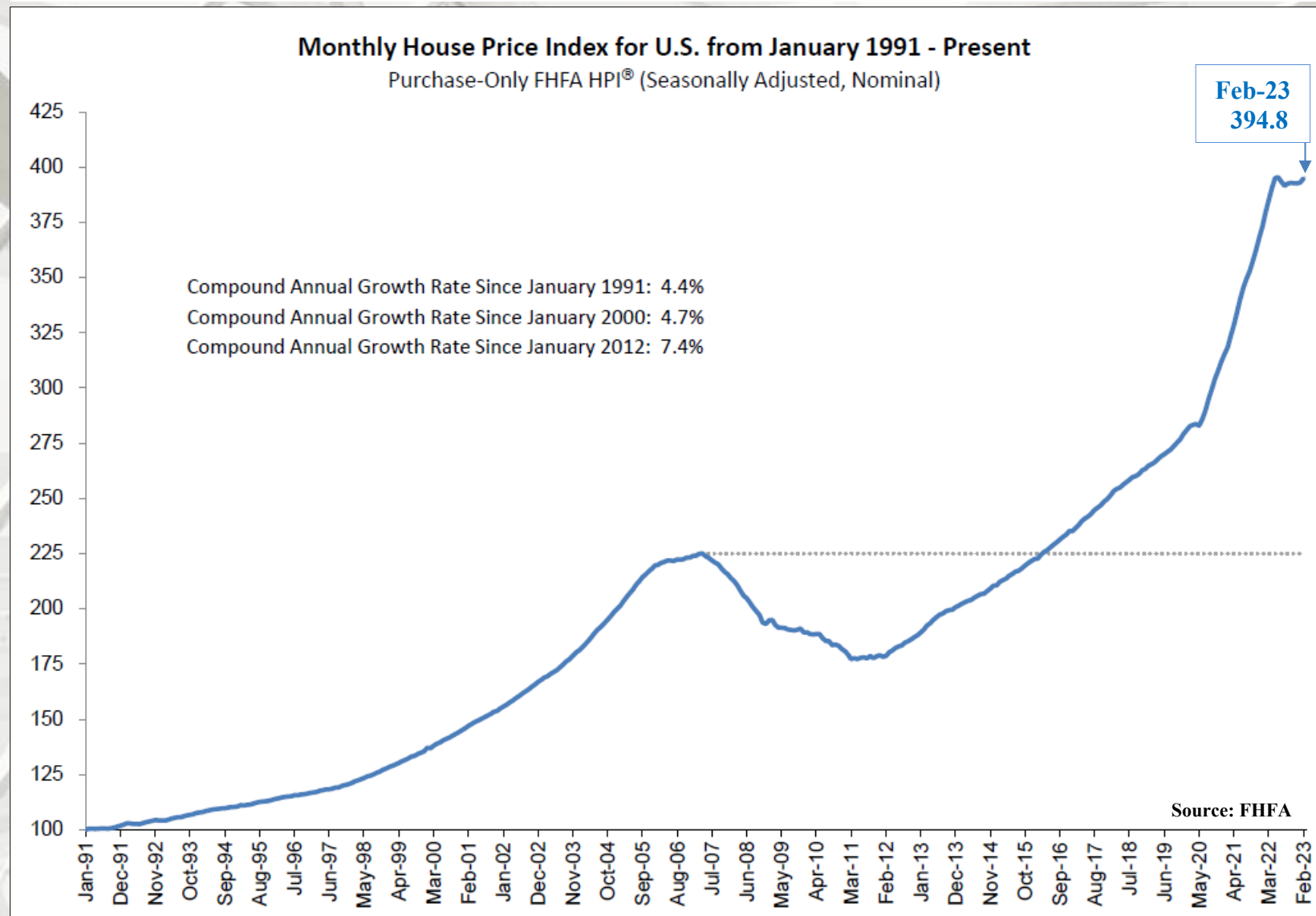
U.S. House Price Index

“U.S. house prices generally increased modestly in the first quarter. However, year over year prices in many western states have started to decline for the first time in over ten years.” – Dr. Anju Vajja, Principal Associate Director, Division of Research and Statistics, FHFA

Source: U.S. House Prices Rise 4.3 Percent over the Last Year; Up 0.5 Percent from the Fourth Quarter ; 5/30/23

[Return to TOC](#)

U.S. Housing Prices



U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Rebound Continued in March

“S&P Dow Jones Indices (S&P DJI) released the latest results for the S&P CoreLogic Case-Shiller Indices, the leading measure of U.S. home prices. Data released for March 2023 show a modest increase in our national composites, although eight of the 20 major metro markets reported lower prices. More than 27 years of history are available for the data series and can be accessed in full by going to <https://www.spglobal.com/spdji/en/index-family/indicators/sp-corelogic-case-shiller/>.

Year-Over-Year

The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 0.7% annual gain in March, down from 2.1% in the previous month. The 10-City Composite showed a decrease of -0.8%, down from 0.5% increase in the previous month. The 20-City Composite posted a -1.1% year-over-year loss, down from a 0.4% gain in the previous month.

Miami, Tampa, and Charlotte reported the highest year-over-year gains among the 20 cities in March. Miami led the way once again with a 7.7% year-over-year price increase, followed by Tampa in second with a 4.8% increase, and Charlotte replacing Atlanta in third with a 4.7% increase. There are 19 of 20 cities reporting lower prices in the year ending March 2023 versus the year ending February 2023, with only Chicago showing an increase at 0.4%.

Month-Over-Month

Before seasonal adjustment, the U.S. National Index posted a 1.3% month-over-month increase in March, while the 10-City and 20-City Composites posted increases of 1.6% and 1.5%, respectively.

After seasonal adjustment, the U.S. National Index posted a month-over-month increase of 0.4%, while the 10-City Composite gained 0.6% and 20-City Composites posted an increase of 0.5%.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

U.S. Housing Prices

S&P CoreLogic Case-Shiller Index Analysis

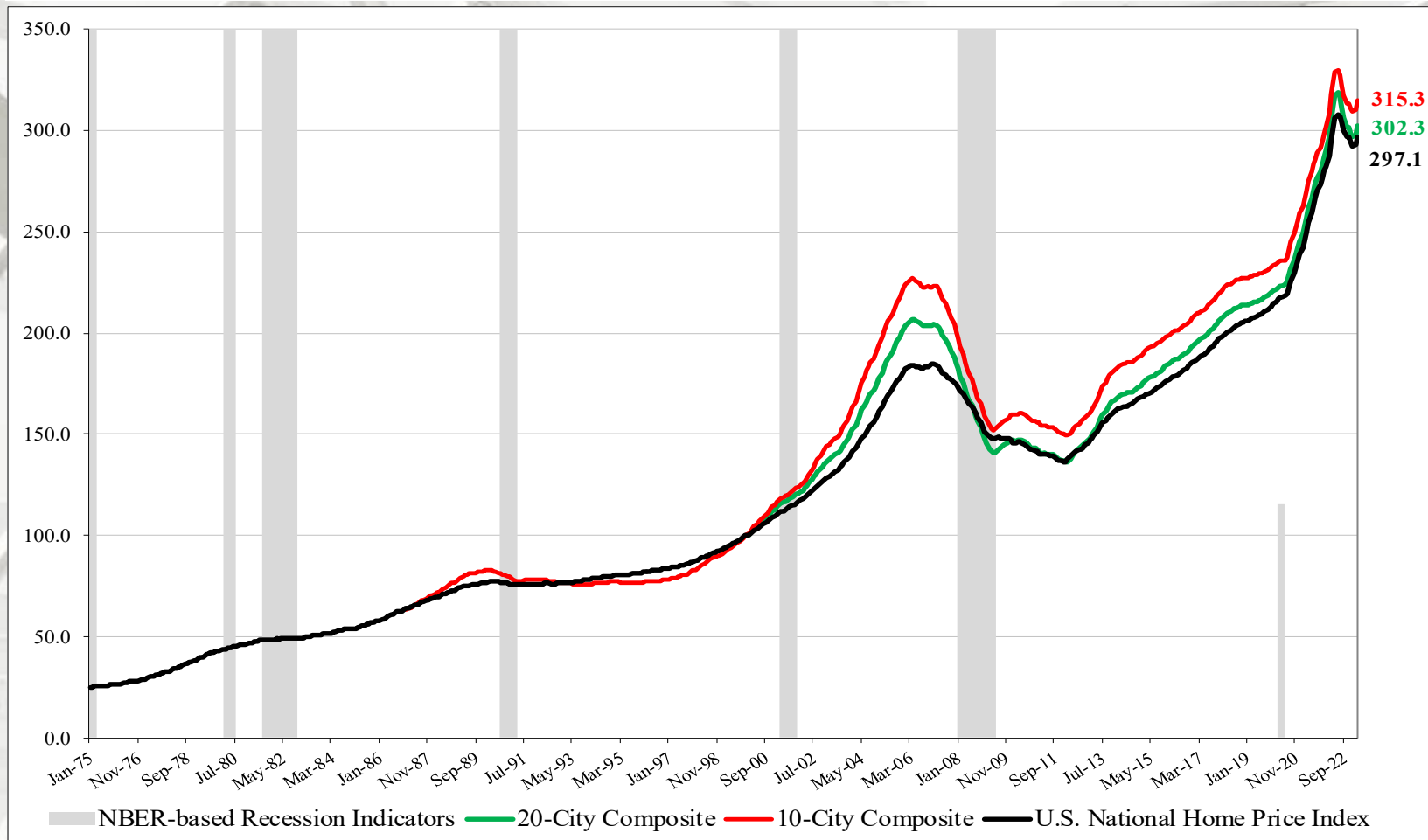
“The modest increases in home prices we saw a month ago accelerated in March 2023. The National Composite rose by 1.3% in March, and now stands only 3.6% below its June 2022 peak. Our 10- and 20-City Composites performed similarly, with March gains of 1.6% and 1.5% respectively. On a trailing 12-month basis, the National Composite is only 0.7% above its level in March 2022, with the 10- and 20-City Composites modestly negative on a year-over-year basis.

The acceleration we observed nationally was also apparent at a more granular level. Before seasonal adjustment, prices rose in all 20 cities in March (versus in 12 in February), and in all 20 price gains accelerated between February and March. Seasonally adjusted data showed 15 cities with rising prices in March (versus 11 in February), with acceleration in 14 cities.

One of the most interesting aspects of our report continues to lie in its stark regional differences. Miami’s 7.7% year-over-year gain made it the best-performing city for the eighth consecutive month. Tampa (+4.8%) continued in second place, narrowly ahead of bronze medalist Charlotte (+4.7%). The farther west we look, the weaker prices are, with Seattle (-12.4%) now leading San Francisco (-11.2%) at the bottom of the league table. It’s unsurprising that the Southeast (+5.4%) remains the country’s strongest region, while the West (-6.2%) remains the weakest.

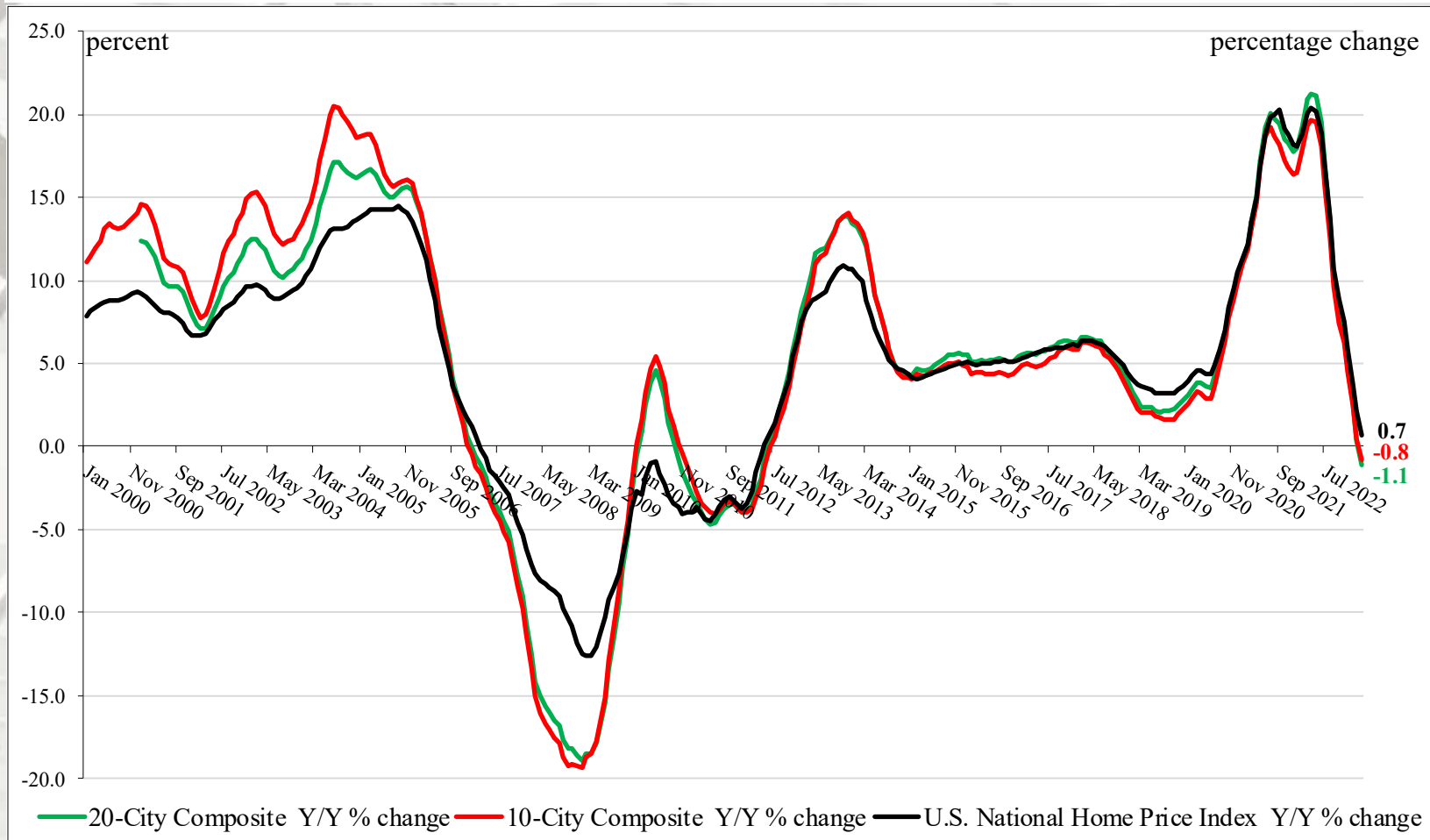
Two months of increasing prices do not a definitive recovery make, but March’s results suggest that the decline in home prices that began in June 2022 may have come to an end. That said, the challenges posed by current mortgage rates and the continuing possibility of economic weakness are likely to remain a headwind for housing prices for at least the next several months.” – Craig J. Lazzara, Managing Director and Global Head of Index Investment Strategy, S&P Dow Jones Indices

S&P/Case-Shiller Home Price Indices



* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

S&P/Case-Shiller Home Price Indices

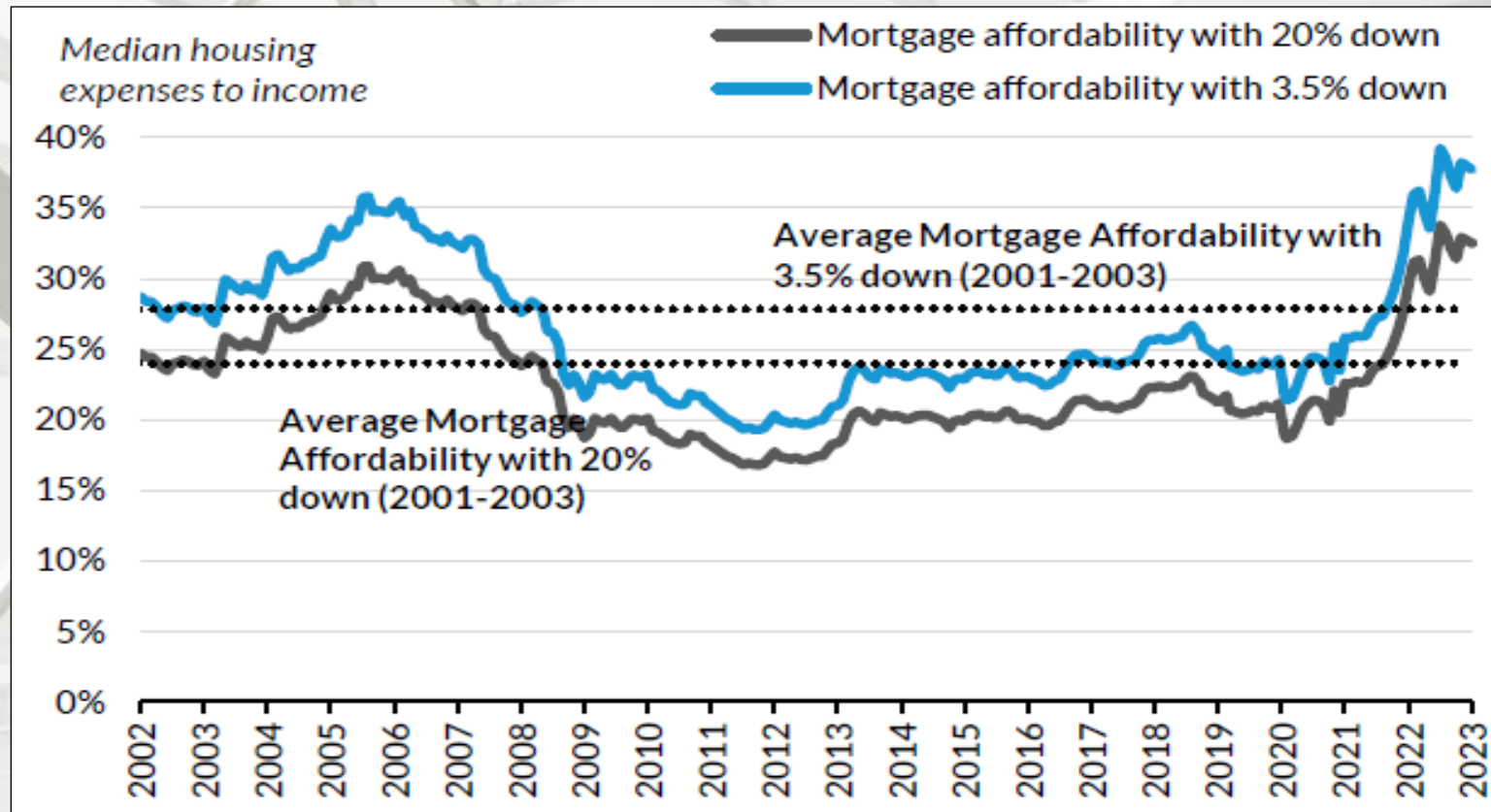


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Y/Y Price Change

From March 2022 to March 2023, the National Index increased 0.7%; the Ten-City declined by 0.8%, and the Twenty-City decreased by 1.1%.

U.S. Housing Affordability

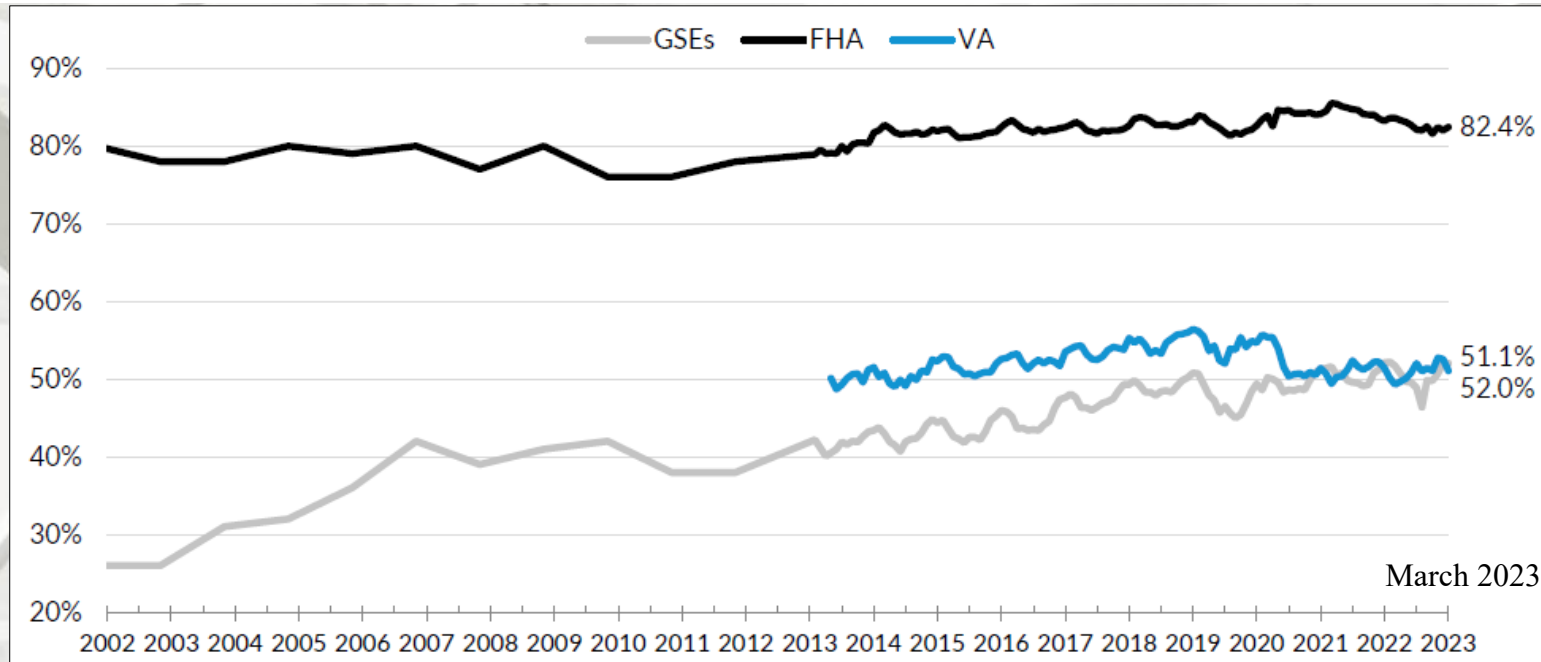


Urban Institute

National Mortgage Affordability Over Time

“After some modest relief in December and January, mortgage affordability worsened in February, but, as rates have modestly retreated, mortgage affordability improved slightly in March and April. Still, as of April 2023, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 32.5 percent, slightly higher than the 30.9 percent at the peak of the housing bubble in November 2005; and with 3.5 percent down it is 37.7 percent, also slightly above the 35.8 percent prior peak in November 2005. ...” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability



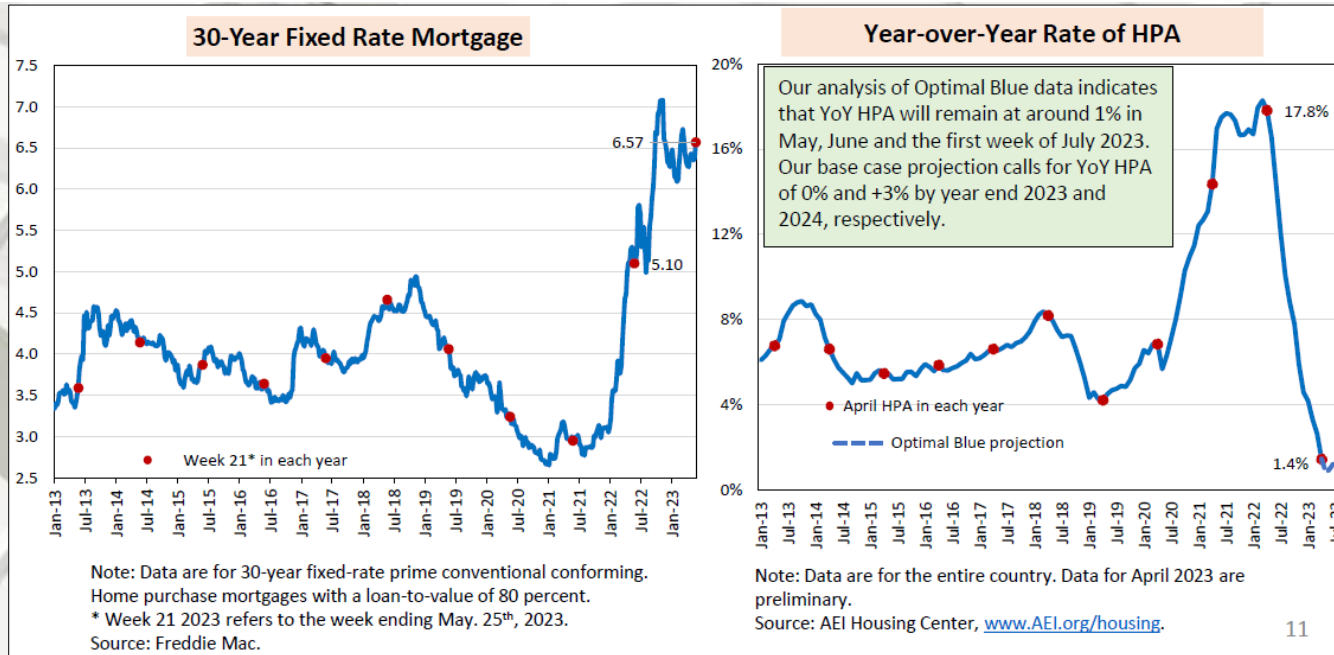
Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

Urban Institute First-time Home Buyer Share

“In March 2023, the FTHB share for FHA, which has always been more focused on first time home buyers, was 82.4 percent. The FTHB share of GSE lending in November was 52.0 percent; the VA share was 51.1 percent. ...based on mortgages originated in March 2023, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV, thus paying a higher interest rate. These differences are smaller for FHA loans than for GSE loans.” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability



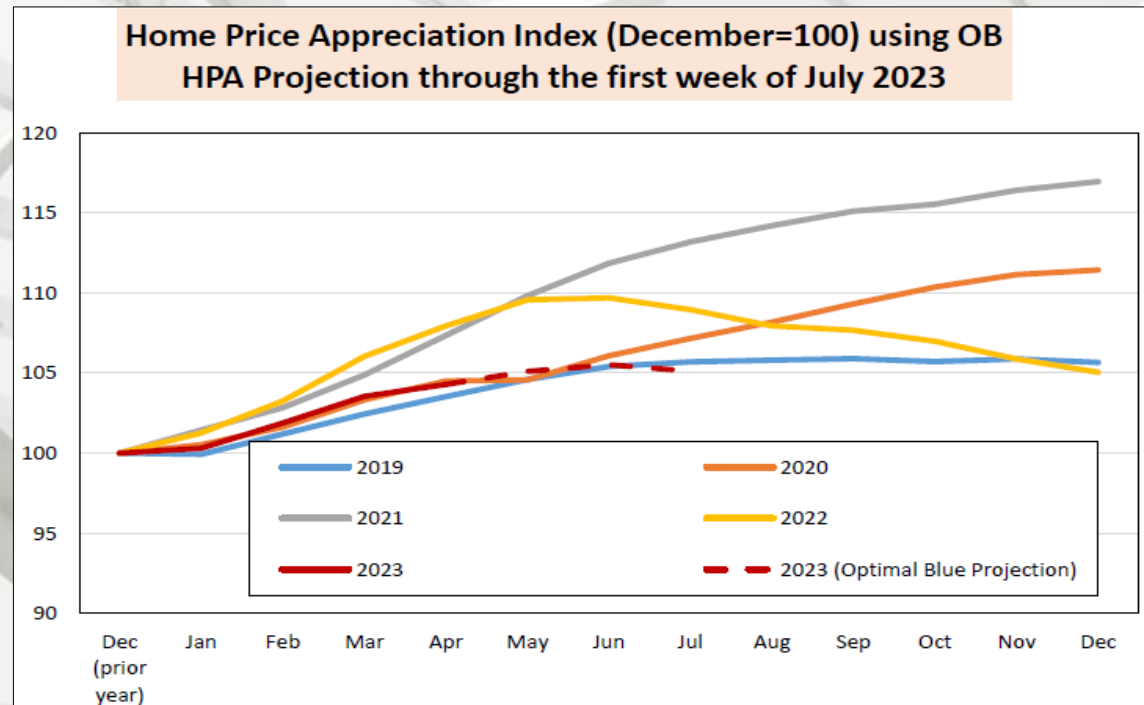
AEI Housing Center

Year over Year Home Price Appreciation (HPA) Decline Slowed Down; Recent Month over (Month MoM) Increases are Expected to Continue.

“By May 2023, home prices are expected to exceed last year’s peak level. April 2023’s YoY HPA was 1.4%, down from 2.6% a month ago and a significant drop from the YoY peak of 18.3% in March 2022.

- April 2023’s MoM HPA was 0.7%, continuing to be positive after MoM HPA had declined from July 2022 to December 2022
- Given historically low supply, cooling yet still strong job numbers, low foreclosures, work from home, and continued home price arbitrage opportunities, we continue to project a YoY HPA of 0% for December 2023.
- Constant quality HPA controls for mix shifts in home quality, which otherwise may skew MoM or YoY changes.” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

U.S. Housing Affordability



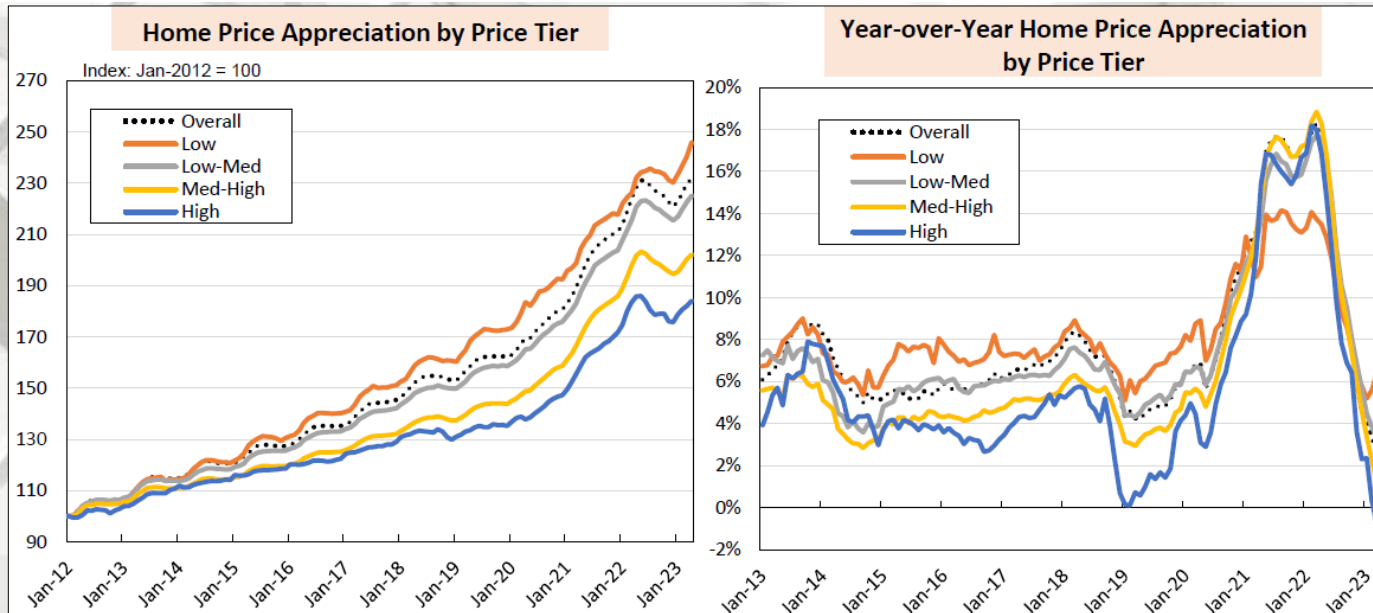
Note: Note: Data are for the entire country. Data for April 2023 are preliminary. May, June, and the first week of July 2023 HPA is projected based on Optimal Blue data. Source: AEI Housing Center, www.AEI.org/housing

AEI Housing Center

Home Price Appreciation: December 2023 and 2024 YoY HPA for Projections

- “Base Case Prediction for Dec. 2023 and Dec. 2024 of 0 % and +3%, respectively
 - Assumes mortgage rate at 6.25% 0.75 ppt. and unemployment rate ≤ 5.5
- Optimistic Case Prediction for Dec. 2023 and Dec. 2024 of +3% and +8%, respectively
 - Assumes mortgage rate at 4.75% 0.75 ppt. and unemployment rate ≤ 5.5
- Pessimistic Case Prediction for Dec. 2023 and Dec. 2024 of 5% and 10%, respectively
 - Assumes mortgage rate at 7.75%, +/- 0.75 ppt. and unemployment rate $> 5.5\%$ and $\leq 7.5\%$.
 - Note: these might occur at different times over the period.” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Home Price Appreciation by Price Tier



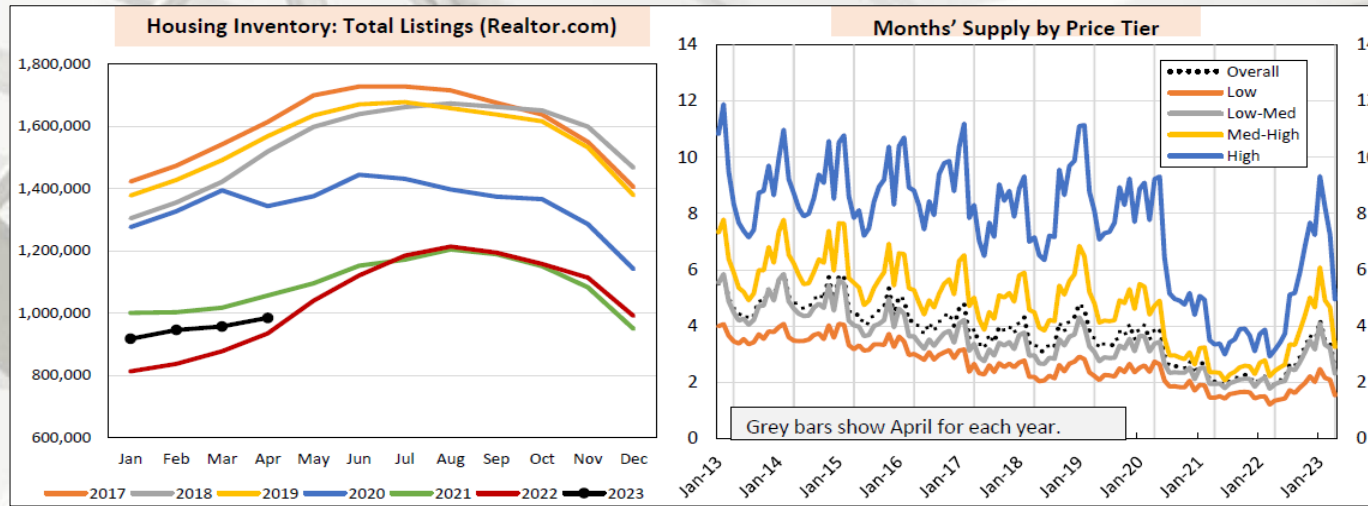
Note: Data are for the entire country. Data for April 2023 are preliminary.
Source: AEI Housing Center, www.AEI.org/housing

AEI Housing Center

“Since 2012, a large gap in HPA has developed between the lower and upper end of the market (left panel).

- Preliminary numbers for April 2023 indicate that the low-price tier leads the YoY change in home prices at 6% due to low months’ supply (1.5 months), low-unemployment, and increasing demand promoted by agency credit easing (right panel).
- Since the med-high and high price tiers are more dependent on the Fed’s monetary punchbowl, they are showing the largest decelerations in YoY HPA as the Fed hikes rates (right panel).” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Home Housing Inventory and Months' Supply



Note: Realtor.com, Zillow, and AEI Housing Center, www.AEI.org/housingSource: AEI Housing Center.

AEI Housing Center

“Months’ remaining supply for April (not seasonally adjusted) leveled at 2.4 months. Housing inventory continued to run below pre-pandemic levels and remains at sellers’ market levels, levels, which helps explain the recent Month over Month home price appreciation increases.

- April 2023 overall inventory was up 5% from a year ago, but only up 3% from last month – the smallest MoM change in April since our tracking started in 2017 (with the exception of 2020). Inventory today is still at around two-thirds of 2017-2019 levels (left panel).
- The YoY HPA for low and high tiers is 6.0% and -0.9%, respectively, in April 2023.
- Months’ supply stood at 2.4 months in April 2023, down from 3.4 a month ago and 3.6 months in April 2019, the last comparable pre-pandemic month (right panel).
- Housing inventory levels would need to increase to > 6 months to indicate a buyer’s market and may need to increase to 7-9 months to trigger a decline in national YoY home price appreciation.” – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

U.S. Housing

ING Bank N.V.[®]

US home sales hit by affordability and supply constraints

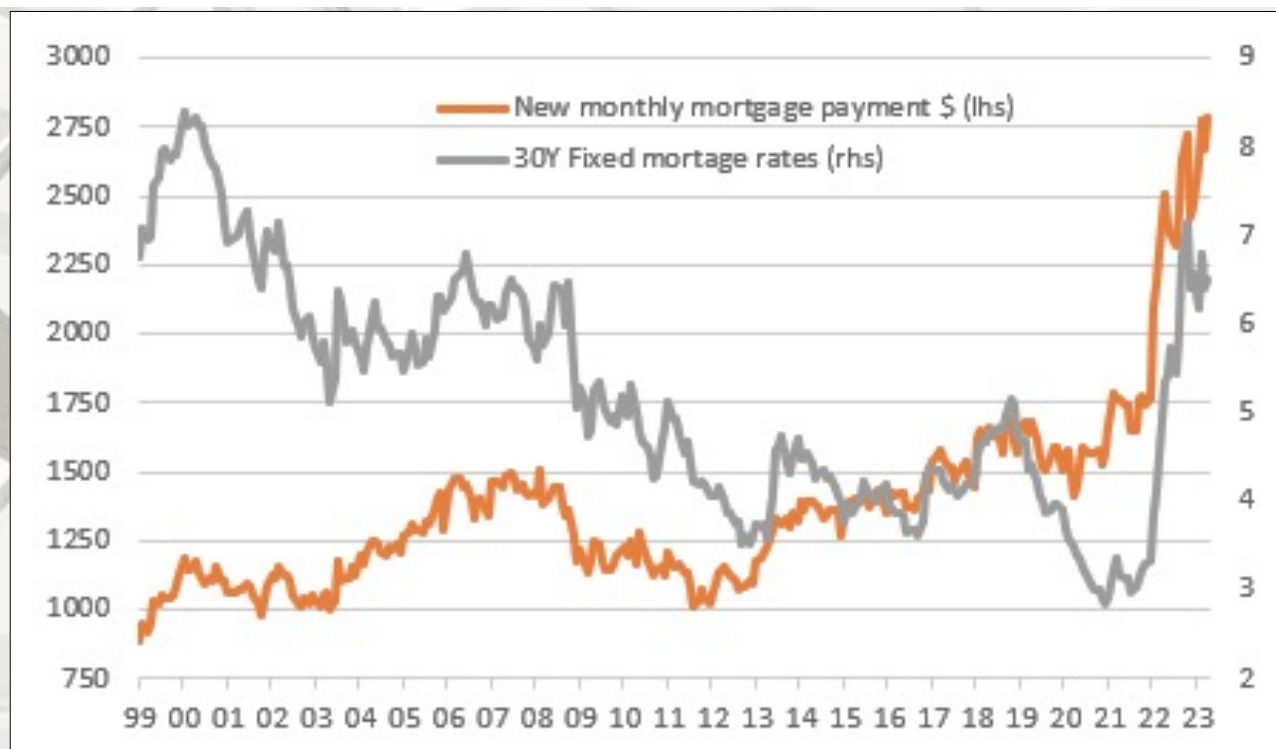
US home sales remain subdued thanks to elevated borrowing costs, high prices and a lack of supply. New home sales should continue to outperform existing ones in this environment, but price risks remain skewed to the downside. Commercial real estate woes are the bigger concern as office vacancies and higher refinancing risks point to rising loan losses

Existing home sales remain under pressure from affordability issues and a lack of options

“Existing home sales fell 3.4% in April to an annualised 4.28mn versus expectations of a 4.3m outcome. Sales had been as high as 6.3mn as recently as January 2022. Higher borrowing costs and a general lack of affordability after prices rose nearly 50% through the pandemic have constrained demand, but we also have to recognise there is a lack of supply out there, which is also contributing to lower transaction numbers.

The more than doubling of mortgage rates over the past 18 months means many home owners who would like to move are effectively locked in by the cheap financing they secured on their current property. New home sales have consequently been performing more strongly despite the drop in mortgage applications for home purchases – the buyers that are out there simply don’t have much to choose from.” – James Knightley, Chief International Economist, ING Bank N.V.[®]

U.S. Housing



ING Bank N.V.[®]

US home sales hit by affordability and supply constraints

“Affordability will remain a key constraint that points to downside risks for transactions. The latest weekly Mortgage Bankers Association data showed that the typical mortgage for a new home taken out last week was a 30Y fixed rate product with a size of \$440,400 at a rate of 6.57%, giving a monthly mortgage payment of \$2804, a record high. Twelve months ago this was \$1,750 per month.

Consequently, if you are considering buying a home today, you are looking at an annual mortgage cost of around \$33,650 on average which, given a median pre-tax US household income of a little under \$75,000, points to ongoing weak demand unless prices fall substantially or borrowing costs plunge.” – James Knightley, Chief International Economist, ING Bank N.V.[®]

U.S. Housing

ING Bank N.V.[®]

If unemployment turns then rising supply could mean accelerating price falls

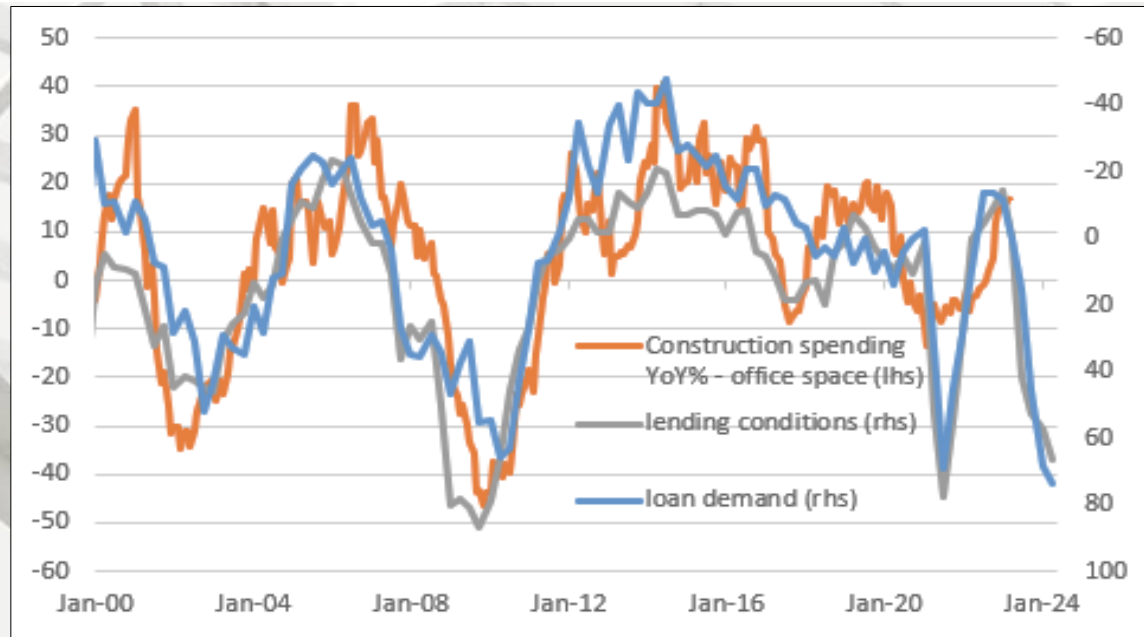
“Should the US economy experience a hard landing and the start of a rise in unemployment, this would threaten a rise in default rates and an increase in the supply of homes for sale. In this scenario, falling demand and rising supply mean falling property prices would be the likely outcome. House price-to-income ratios remain extremely elevated, and for them to return to long-run averages, we would likely need to see prices fall by around 20-25% in the absence of any rise in incomes. Construction of new homes would inevitably fall as well.

Commercial real estate is where the bigger problems lie

Unfortunately, it isn't only the residential sector that looks vulnerable. Last week the Federal Reserve warned of the risks facing the commercial real estate sector since the sharp jump in interest rates over the past 14 months “increases the risk” that commercial real estate loans will be difficult to refinance. A recent report from another bank suggested that up to \$1.5bn of these loans need to be refinanced by 2025. With office occupancy nationally running at 45% according to data from Kastle and many offices in need of updating and investment, there is the very real risk that defaults rise – A PIMCO fund has defaulted on \$1.7bn of office-related loans this year and Brookfield has defaulted on more than \$750mn of debt tied to Los Angeles office blocks.

What makes this so problematic for the property market and construction sectors is that small banks account for such a high proportion of commercial bank lending to both residential and commercial property. As the chart below shows, banks with less than \$250bn of assets account for two-thirds of the stock of all commercial lending to commercial property and more than a third of residential property lending by all banks.” – James Knightley, Chief International Economist, ING Bank N.V.[®]

U.S. Housing



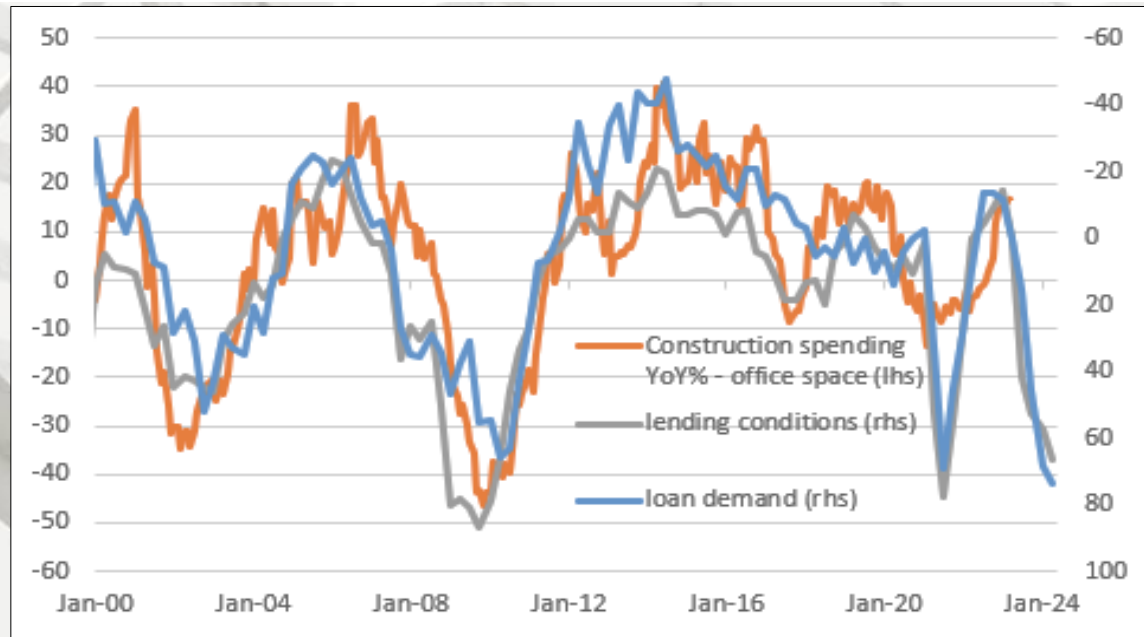
ING Bank N.V.®

Small banks will come under increasing pressure, threatening weaker credit growth throughout the economy

“With these small and regional banks already being squeezed by deposit flight and facing the prospect of more intense regulatory oversight in the wake of recent high profile failures, loan losses on commercial real estate will only heighten the pressure on these banks. The Fed’s viewpoint is that “the magnitude of a correction in property values could be sizable and therefore could lead to credit losses by holders of C.R.E. debt.”

With the Fed’s Senior Loan Officer survey indicating credit conditions are rapidly tightening across the board and particularly for commercial real estate lending, this implies a sharp downturn in lending for the sector, meaning refinancing could be immensely challenging and create a downward spiral for prices that will suck construction spending sharply lower.” – James Knightley, Chief International Economist, ING Bank N.V.®

U.S. Housing



ING Bank N.V.®

Small banks will come under increasing pressure, threatening weaker credit growth throughout the economy

“With these small and regional banks already being squeezed by deposit flight and facing the prospect of more intense regulatory oversight in the wake of recent high profile failures, loan losses on commercial real estate will only heighten the pressure on these banks. The Fed’s viewpoint is that “the magnitude of a correction in property values could be sizable and therefore could lead to credit losses by holders of C.R.E. debt.”

With the Fed’s Senior Loan Officer survey indicating credit conditions are rapidly tightening across the board and particularly for commercial real estate lending, this implies a sharp downturn in lending for the sector, meaning refinancing could be immensely challenging and create a downward spiral for prices that will suck construction spending sharply lower.” – James Knightley, Chief International Economist, ING Bank N.V.®

U.S. Housing

ING Bank N.V.®

US home sales hit by affordability and supply constraints

Small banks will come under increasing pressure, threatening weaker credit growth throughout the economy

“This will have knock-on effects for other lending markets, with banks increasingly reluctant to lend across the board. This is hugely significant as what turns struggling businesses into failing businesses is when credit availability evaporates. Given small and regional banks account for more than 40% of all lending in the US, with a particular focus on small businesses outside of major cities, this is a troubling situation. Large banks are unlikely to be able to fill the gap and the risk is that unemployment climbs. In such an environment, the market pricing of significant and rapid interest rate cuts from the Federal Reserve from later in the year appears justified.” – James Knightley, Chief International Economist, ING Bank N.V.®

U.S. Housing

First American Financial Corporation®

Uncertain Economic Outlook Keeps Renters Where They Are, Pushing Cap Rates Up

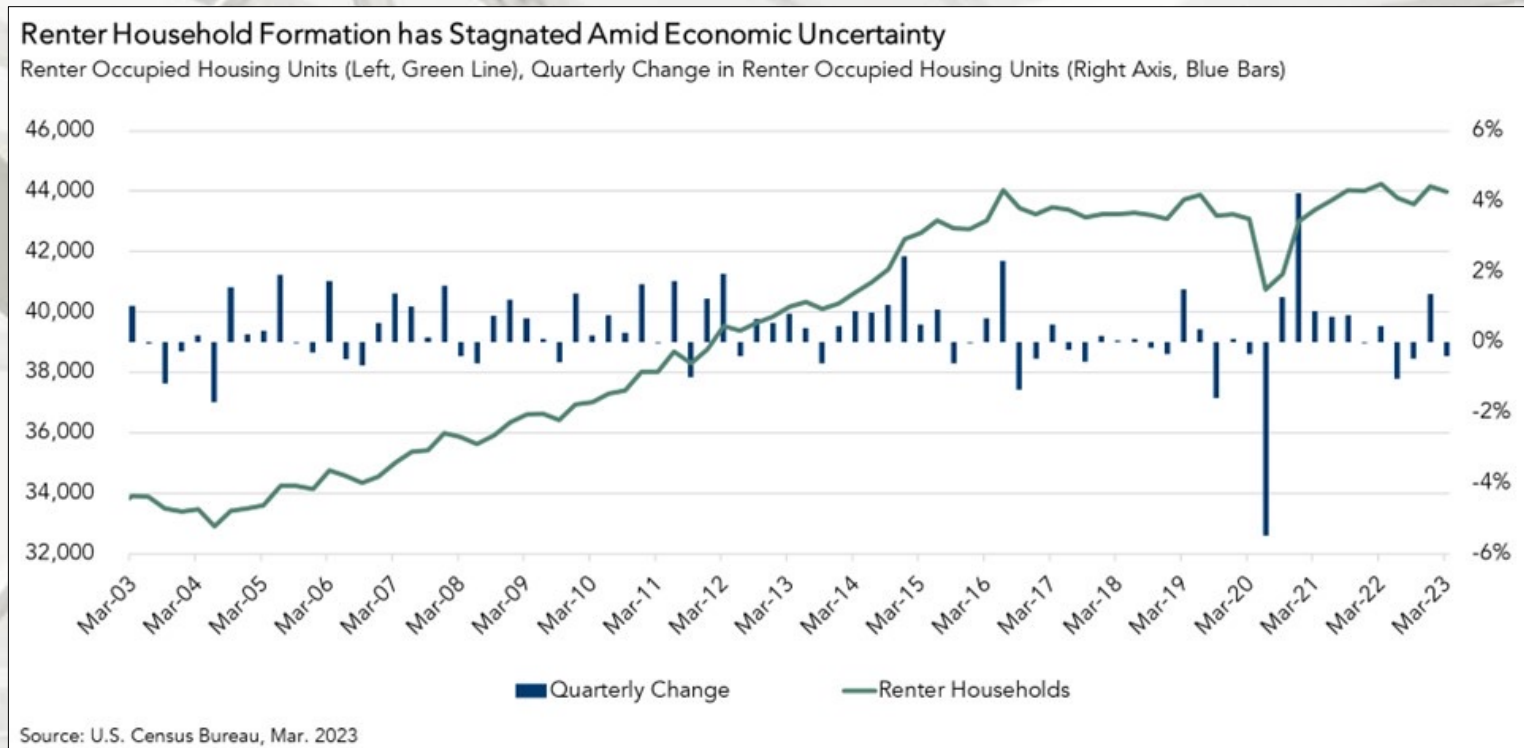
“In times of economic uncertainty, people [tend to stay put](#). After all, why take on new financial obligations, like an apartment lease, when the future is less certain? Today, though [unemployment remains low](#), [inflation remains high](#), and the recent [slew of layoffs at tech companies](#) has many worried about [their own financial position](#). The recent, highly publicized bank failures only further cloud the outlook for many who might otherwise explore moving into a new apartment. All of these factors lead to slower household formation, which has real implications for multifamily commercial real estate, including multifamily capitalization (cap) rates.

Should I Stay or Should I Go?

Over the last year, growing macroeconomic uncertainty has contributed to a slowdown in renter household formation, which is a primary driver of apartment leasing demand. For this reason, renter household formation is also a key component of First American’s [Multifamily Potential Cap Rate \(PCR\) Model](#), which estimates a national multifamily cap rate based on market fundamentals. Generally speaking, as the number of renter households grows, the demand to lease apartments increases. Higher rates of renter household formation can reduce the risk associated with a multifamily property investment, since greater apartment demand usually translates into lower vacancy rates and improved cash flow. With reduced leasing risk, multifamily buyers are generally willing to pay a higher price for an asset.

Conversely, lower rates of renter household formation tend to put upward pressure on multifamily cap rates. Fewer renter households means decreased demand to rent apartments, which increases the risk of higher vacancy rates and, therefore, impaired cash flows for owners.” – Xander Snyder, Senior Commercial Real Estate Economist, First American Financial Corporation®

U.S. Housing



First American Financial Corporation®

“Renter household formation cratered in the early stages of the pandemic. Unsure of how long new quarantine measures would last and with unemployment soaring, many potential renters moved in with family members. Later in 2020, as it became clear that the pandemic and, therefore, remote work would persist, people began moving back out and setting up their own households. This resurgence in renter household formation lasted for a little over a year, bringing the total number of renter-occupied households to an all-time high of 44.2 million in the first quarter of 2022, the same quarter that the multifamily PCR troughed.” – Xander Snyder, Senior Commercial Real Estate Economist, First American Financial Corporation®

U.S. Housing

First American Financial Corporation®

“Over the past year, renter household formation has stagnated amid heightened economic uncertainty, declining by 0.4 percent in the first quarter of 2023 compared with the first quarter of 2022. This decline contributed to a 0.3 percentage point annual increase in the multifamily PCR to 4.6 percent in the first quarter of 2023.

Short Run versus Long Run

Though less certain economic conditions have dampened renter household growth following the mid-pandemic surge, high mortgage rates are keeping home ownership [out of reach for many](#). Additionally, [long-term demographic trends](#) are expected to add to the number of renter households in the coming years.

In the short run, slow renter household formation is putting upward pressure on cap rates, but in the long run this dynamic is likely to reverse. When economic uncertainty clears, fewer people will remain risk-averse with respect to their living situation. When this happens, renter household formation will likely accelerate.

First Quarter 2023 Multifamily Potential Cap Rate (PCR) Model

- The multifamily PCR was 4.6 percent, an increase of 0.1 percentage points as compared with the fourth quarter of 2022.
- The multifamily PCR increased by 3 percentage points as compared with one year ago. The first quarter of 2022 represented the multifamily PCR’s 20-year low.” – Xander Snyder, Senior Commercial Real Estate Economist, First American Financial Corporation®

U.S. Housing

First American Financial Corporation®

“Multifamily Cap Rate Outlook Gap

The gap between the actual multifamily cap rate and the multifamily PCR provides insight into the likelihood of shifts in the actual cap rate. If the multifamily PCR is below the actual multifamily cap rate, it indicates that fundamentals supported lower cap rates than were observed. If the multifamily PCR is above the actual multifamily cap rate, it indicates that fundamentals supported higher cap rates than were observed.

In the first quarter of 2023, the actual national multifamily cap rate was 4 percentage points higher than the potential cap rate, indicating that market fundamentals supported a lower cap rate than was observed in the first quarter. Both the actual and potential multifamily cap rate, however, are increasing.

First Quarter 2023 All-Asset PCR Model

First American’s All-Asset PCR Model estimates a potential national cap rate for all asset classes based on several CRE market fundamentals, including rental income, prevailing occupancy rates, interest rates, the amount of commercial mortgage debt in the economy, and recent property price trends.

- The all-asset PCR was 5.5 percent in the first quarter of 2023, an increase of 0.5 percentage points as compared with the fourth quarter of 2022.
- The all-asset PCR increased by 1.3 percentage points as compared with the first quarter of 2022.
- In the first quarter of 2023, the all-asset PCR was 1.3 percentage points above its 20-year low of 4.2 percent, which occurred in the in the first quarter of 2022, and 3.4 percentage points below its third quarter 2001 peak of 8.9 percent.” – Xander Snyder, Senior Commercial Real Estate Economist, First American Financial Corporation®

U.S. Housing

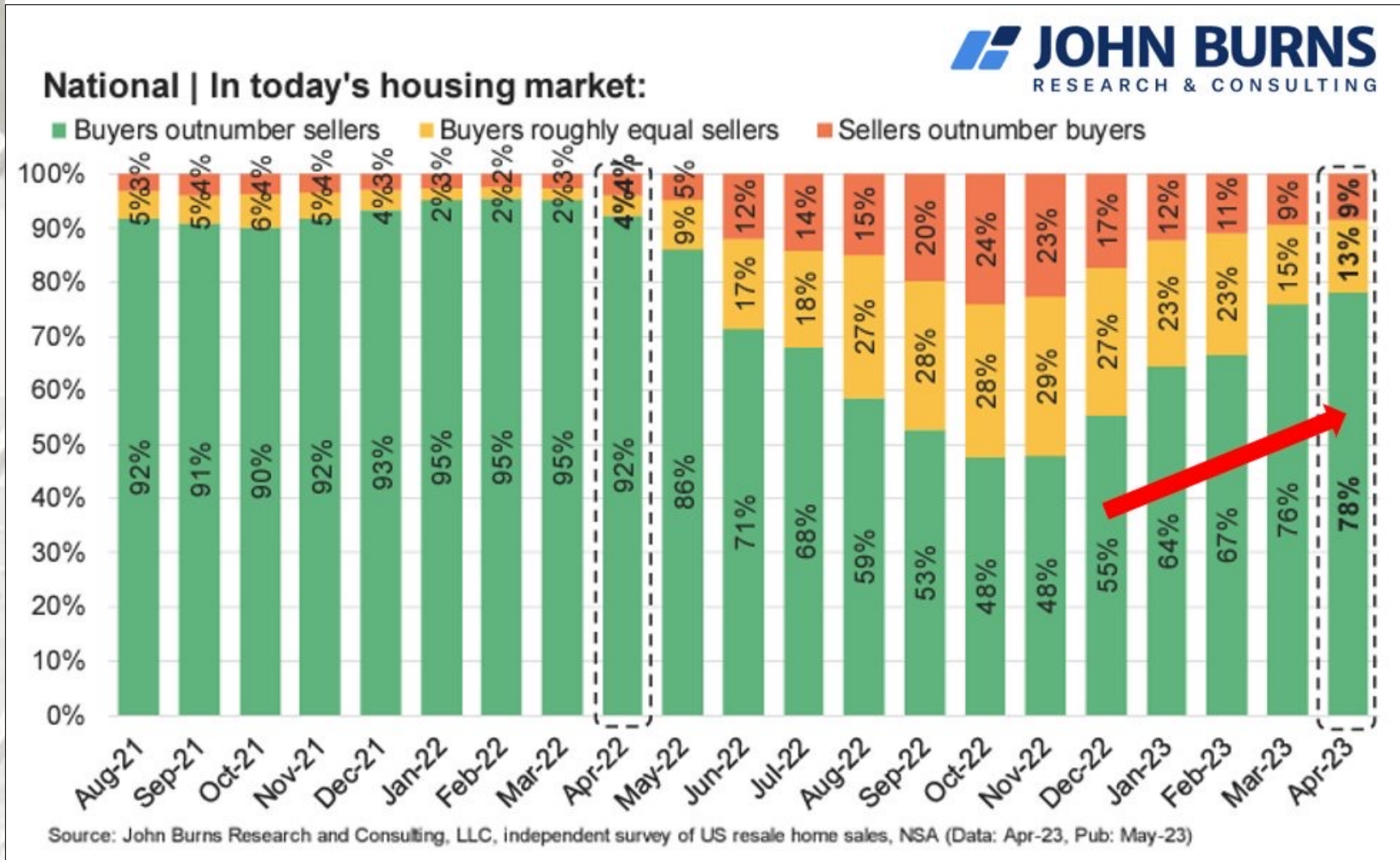
First American Financial Corporation®

“All-Asset PCR Model Outlook Gap

- The all-asset actual cap rate was 0.2 percentage points higher than the potential cap rate, which suggests that market fundamentals in the fourth quarter supported lower actual cap rates than were observed.
- The gap between the actual all-asset cap rate and the potential all-asset cap rate contracted in the fourth quarter to 2 percent from 0.5 percent in the third quarter of 2022. Though the PCR remains below the actual all-asset cap rate, this gap has been shrinking since the first quarter of 2022, signaling that market fundamentals are increasingly supporting higher cap rates.” – Xander Snyder, Senior Commercial Real Estate Economist, First American Financial Corporation®

U.S. Housing

John Burns Real Estate Consulting LLC®



U.S. Housing

John Burns Real Estate Consulting LLC®

“Some of my top takeaways from our @JBREC client housing Summit conference last week.

- 1) Supply chain across new home construction (namely land) remains structurally broken. While things have improved for sure, new normal of bottlenecks everywhere likely creates a ceiling on starts.
- 2) Big home builders will keep getting bigger. Plenty of talk around market share gains for many reasons (some cyclical, some structural).
- 3) Single-family rental (SFR) demand/supply fundamentals remain solid. Similar to for-sale housing, SFR is benefitting from limited rental supply coming into the system this cycle.
- 4) Build-to-rent (BTR) capital markets are in dislocation, with a ton of deals shelved over the last year.
- 5) Truck driver wages are up 37% over the last 3 years, and well worth it for many building product companies given drivers are a key ‘face of the company’ touch point in supply chain.” – Rick Palacios Jr., Director of Research, John Burns Research and Consulting

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Decreased in May

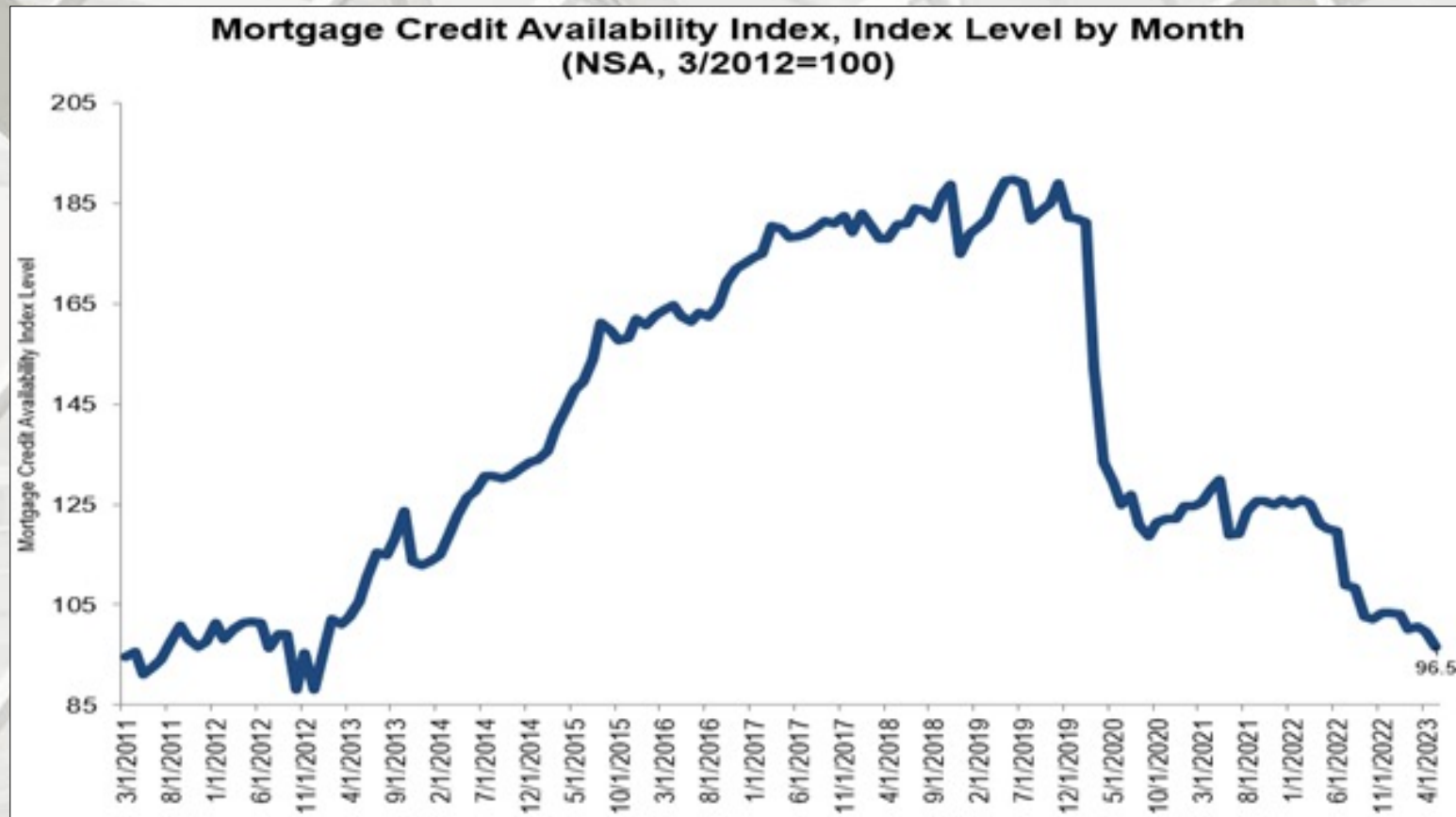
“Mortgage credit availability decreased in May according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

The MCAI fell by 3.1 percent to 96.5 in May. A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening credit. The index was benchmarked to 100 in March 2012. The Conventional MCAI decreased 2.3 percent, while the Government MCAI decreased by 3.8 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 1.5 percent, and the Conforming MCAI fell by 3.9 percent.

Mortgage credit availability decreased for the third consecutive month, as the industry continued to see more consolidation and reduced capacity as a result of the tougher market. With this decline in availability, the MCAI is now at its lowest level since January 2013. The Conforming index decreased almost 4 percent to its lowest level in the history of the survey, which dates back to 2011. The Jumbo index fell by 1.5 percent last month, its first contraction in three months, as some depositories assess the impact of recent deposit outflows and reduce their appetite for jumbo loans. Additionally, lenders pulled back on loan offerings for higher LTV and lower credit score loans, even as loan applications continued to run well behind last year’s pace. Both Conventional and Government indices saw declines last month, and the Government index fell by 3.8 percent to the lowest level since January 2013. In a market where a significant share of demand is expected to come from first-time homebuyers, the depressed supply of government credit is particularly significant.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance

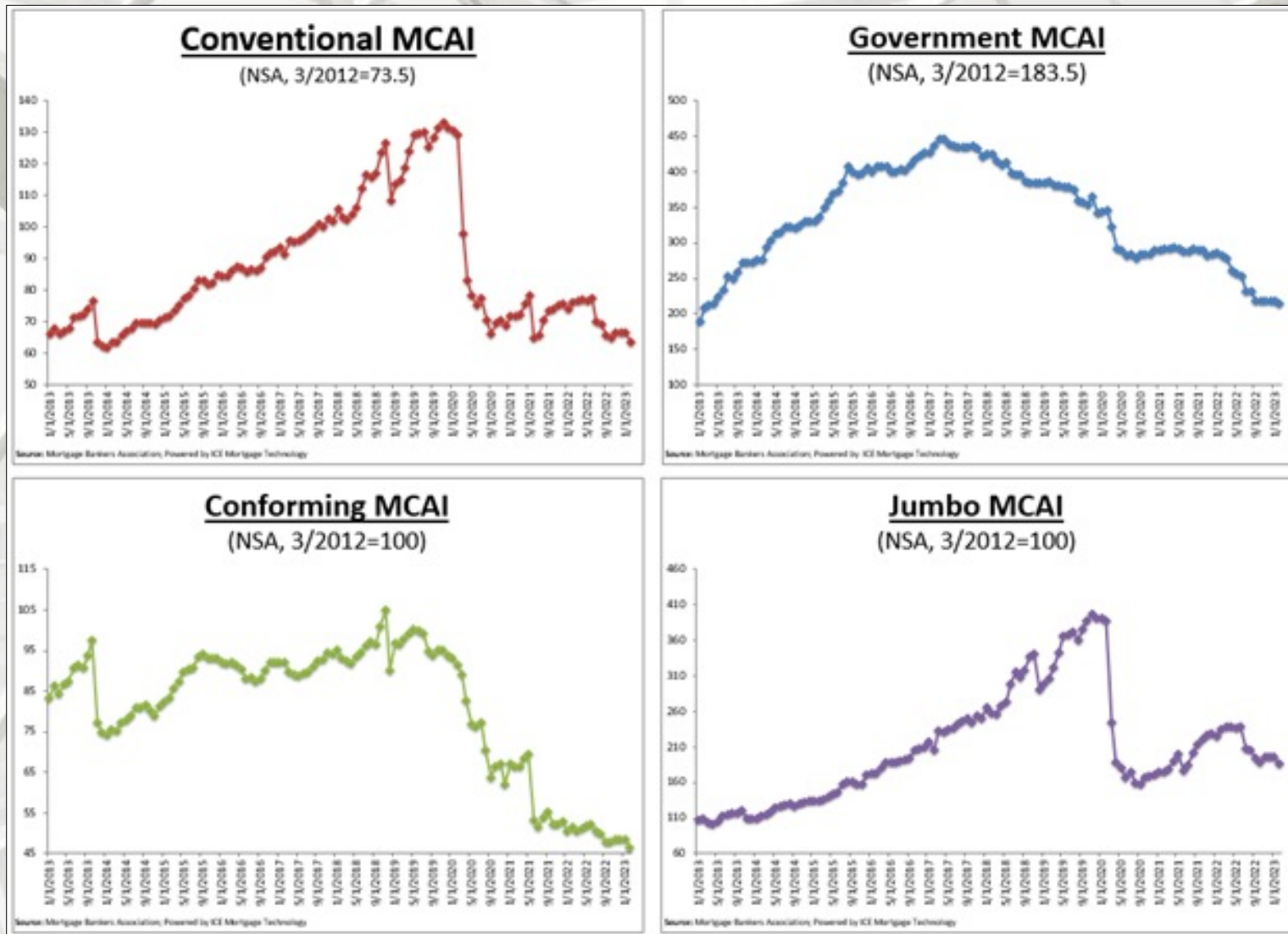
Mortgage Credit Availability (MBA)



Source: Mortgage Bankers Association; Powered by Ellie Mae's AllRegs® Market Clarity®

U.S. Housing Finance

Mortgage Credit Availability (MBA)



Source: Mortgage Bankers Association; Powered by Ellie Mae's AllRegs® Market Clarity®

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

May 19, 2023

	2022				2023				2024				2022	2023	2024	2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Housing Measures																
Housing Starts (SAAR, Thous)	1,720	1,647	1,450	1,398	1,395	1,374	1,362	1,369	1,372	1,409	1,467	1,519	1,554	1,375	1,442	1,576
Single-Family	1,187	1,086	905	849	841	860	890	910	938	983	1,024	1,078	1,007	875	1,006	1,141
Two or More	533	561	545	549	555	514	472	459	434	426	443	441	547	500	436	435
Home Sales (SAAR, Thous)																
Total Existing Homes	6,057	5,373	4,770	4,197	4,327	4,345	4,185	4,239	4,402	4,701	4,835	5,013	5,099	4,274	4,738	5,249
New Homes	776	609	580	598	651	644	625	636	646	683	708	737	641	639	693	760
FHFA US House Price Index (YOY % Change)	18.8	17.9	14.2	8.3	4.1	2.4	0.9	-0.6	-2.7	-3.0	-2.0	-1.4	8.3	-0.6	-1.4	2.1
Median Price of Total Existing Homes (Thous \$)	365.8	405.9	391.5	372.8	366.7	370.3	364.2	370.0	376.0	374.3	374.3	376.8	384.0	367.8	375.4	385.9
Median Price of New Homes (Thous \$)	431.3	447.0	465.4	479.5	437.2	440.6	431.8	432.4	438.1	429.8	432.9	435.5	455.8	435.5	434.1	444.4
Interest Rates																
30-Year Fixed Rate Mortgage (%)	3.9	5.3	5.7	6.6	6.4	6.4	6.0	5.6	5.5	5.3	5.0	4.8	6.6	5.6	4.8	4.5
10-Year Treasury Yield (%)	1.9	2.9	3.1	3.8	3.6	3.5	3.4	3.2	3.1	2.9	2.7	2.6	3.8	3.2	2.6	2.5
Mortgage Originations																
Total 1- to 4-Family (Bil \$)	689	678	480	398	333	463	490	522	473	604	581	590	2,245	1,808	2,249	2,468
Purchase	381	477	388	332	267	371	364	378	327	450	414	422	1,578	1,380	1,614	1,783
Refinance	308	201	92	66	66	92	126	144	146	154	167	168	667	428	635	685
Refinance Share (%)	45	30	19	17	20	20	26	28	31	25	29	28	30	24	28	28
FHA Originations (Bil \$)													158	123	137	139
Total 1- to 4-Family (000s loans)	1,939	1,789	1,206	973	816	1,125	1,202	1,286	1,180	1,505	1,463	1,490	5,907	4,429	5,638	6,200
Purchase	1,000	1,202	946	790	634	862	857	892	777	1,077	997	1,019	3,938	3,245	3,871	4,288
Refinance	938	588	260	182	182	263	345	394	403	428	466	471	1,969	1,184	1,768	1,912
Refinance Share (%)	48	33	22	19	22	23	29	31	34	28	32	32	33	27	31	31
Mortgage Debt Outstanding																
1- to 4-Family (Bil \$)	12,695	12,971	13,195	13,325	13,439	13,570	13,664	13,720	13,755	13,806	13,850	13,876	13,325	13,720	13,876	14,093

Notes:

As of the August 2022 forecast, 2021 origination volume was revised based on the 2021 Home Mortgage Disclosure Act data. Total 1-to-4-family originations and refinance share are MBA estimates. These exclude second mortgages and home equity loans. Mortgage rate forecast is based on Freddie Mac's 30-Yr fixed rate which is based on predominantly home purchase transactions. The 10-Year Treasury Yield and 30-Yr mortgage rate are the average for the quarter, but annual columns show Q4 values. The FHFA US House Price Index is the forecasted year over year percent change of the FHFA Purchase-Only House Price Index. Copyright 2023 Mortgage Bankers Association. All rights reserved. THE HISTORICAL DATA AND PROJECTIONS ARE PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND.



MBA Economic Forecast

MBA Economic Forecast

May 19, 2023

	2022				2023				2024				2022	2023	2024	2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Percent Change, SAAR																
Real Gross Domestic Product	-1.6	-0.6	3.2	2.6	1.1	-0.6	-0.4	0.5	1.1	1.3	1.8	1.9	0.9	0.2	1.5	2.0
Personal Consumption Expenditures	1.3	2.0	2.3	1.0	3.7	-0.4	-0.3	0.2	0.9	1.1	2.1	1.9	1.7	0.8	1.5	2.5
Business Fixed Investment	7.9	0.1	6.2	4.0	0.7	-0.6	-3.0	-2.3	-1.0	-0.1	1.1	1.5	4.5	-1.3	0.4	2.2
Residential Investment	-3.1	-17.8	-27.1	-25.1	-4.2	-3.5	-2.1	7.2	6.2	5.4	6.8	11.7	-18.8	-0.7	7.5	6.2
Govt. Consumption & Investment	-2.3	-1.6	3.7	3.8	4.7	0.5	1.7	0.8	1.0	0.9	0.7	0.8	0.9	1.9	0.8	0.8
Net Exports (Bil. Chain 2012\$)	-1260.3	-1207.6	-1063.8	-1037.8	-1034.8	-1043.3	-1035.6	-1014.1	-1028.7	-1040.2	-1065.6	-1094.4	-1142.4	-1031.9	-1057.2	-1185.4
Inventory Investment (Bil. Chain 2012\$)	182.4	93.7	32.9	116.1	-1.4	-4.1	-13.9	-20.0	-2.4	13.3	21.7	32.2	106.3	-9.8	16.2	51.7
Consumer Prices (YOY)	8.0	8.6	8.3	7.1	5.8	4.4	4.2	3.8	3.3	2.9	2.5	2.5	7.1	3.8	2.5	2.2
Percent																
Unemployment Rate	3.8	3.6	3.5	3.6	3.5	3.5	4.2	4.8	5.0	5.0	4.8	4.6	3.6	4.0	4.8	4.2
Federal Funds Rate	0.375	1.625	3.125	4.375	4.875	5.125	5.125	5.125	4.625	4.125	3.625	3.125	4.375	5.125	3.125	2.375
10-Year Treasury Yield	1.9	2.9	3.1	3.8	3.6	3.5	3.4	3.2	3.1	2.9	2.7	2.6	3.8	3.2	2.6	2.5

Notes:

The Fed Funds Rate forecast is shown as the mid point of the Fed Funds range at the end of the period.

All data except interest rates are seasonally adjusted

The 10-Year Treasury Yield is the average for the quarter, while the annual value is the Q4 value

Forecast produced with the assistance of the Macroeconomic Advisers' model

Copyright 2023 Mortgage Bankers Association. All rights reserved.

THE HISTORICAL DATA AND PROJECTIONS ARE PROVIDED "AS IS" WITH NO WARRANTIES OF ANY KIND.

MBA

MORTGAGE BANKERS ASSOCIATION

Summary

In conclusion:

Year-over-year and month-over-month data were disappointing. Month-over-month data were mixed – total, single-family, and multi-family starts housing under construction, new single-family house sales, and total spending were positive. The vast majority of data were negative. Borrowing costs and consumer sentiment, combined with elevated house prices have resulted in a major obstacle for new and existing house sales.

Pros:

- 1) The desire to own a house remains strong, though consumer sentiment may be waning

Cons:

- 1) Mortgage interest rates and affordability;
- 2) US bank failures;
- 3) Inflation;
- 4) The war in Ukraine and other international concerns;
- 5) Construction material, appliance constraints, and logistics/supply chains remain;
- 6) Lot availability and building regulations (according to several sources);
- 7) Labor shortages in many sectors;
- 8) Household formations still lag historical averages;
- 9) Job creation is improving and consistent, but some economists question the quantity and types of jobs being created;
- 10) Debt: Corporate, personal, government – United States and globally;
- 11) Other global uncertainties.

Virginia Tech Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you April find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.

U.S. Department of Agriculture Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents available from this server, neither the United States Government nor any of its employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by the U.S. Department of Agriculture of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, the Department does not exercise any editorial control over the information you find at these locations. All links are provided with the intent of meeting the mission of the Department and the Forest Service web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.720.2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call 800.795.3272 (voice) or 202.720.6382 (TDD). The USDA is an equal opportunity provider and employer.