

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

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<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 mixed. Housing permits, completions, and new sales were positive (month-over-month) in January and were the “bright” spots in an otherwise dismal report. Increasing borrowing costs and consumer sentiment, combined with elevated house prices have resulted in a major obstacle for new and existing house sales.

The March 8th Atlanta Fed GDPNow™ total residential investment spending forecast is a negative 8.7% (quarterly log change). New private permanent site expenditures were projected at -16.4%; the improvement spending forecast was 0.6%; and the manufactured/mobile home expenditures projection was -1.1% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“The housing sector is an interest-sensitive one – business cycles and changes in monetary policy impact housing more than other sectors, such as manufacturing. With mortgage rates more than doubling last year, affordability will continue to weigh on the housing market in the near term. Rates are unlikely to go down by much this year as the Fed keeps its focus on inflation, which may have eased a bit from the highs of June 2022, but nevertheless, is elevated compared to the Fed’s target of 2%. And although home prices have declined, quantum of decline is hardly enough to offset high borrowing costs. ...”² – Akrur Barua, Associate Vice President, Deloitte Services India Pvt. Ltd. and Patricia Buckley, Managing Director for Economics, Deloitte Services LP

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; 3/8/23

² <https://www2.deloitte.com/us/en/insights/economy/issues-by-the-numbers/us-housing-crisis.html?id=us:2em:3pa:economic-outlook:eng:di:030823; 3/8/23>

January 2023 Housing Scorecard

	M/M	Y/Y
Housing Starts	▼ 4.5%	▼ 21.4%
Single-Family (SF) Starts	▼ 4.3%	▼ 27.3%
Multi-Family (MF) Starts*	▼ 4.9%	▼ 8.1%
Housing Permits	▲ 0.1%	▼ 27.3%
SF Permits	▼ 1.2%	▼ 39.7%
MF Permits*	▲ 1.8%	▼ 4.2%
Housing Under Construction	▼ 0.1%	▲ 9.5%
SF Under Construction	▼ 1.1%	▼ 4.8%
Housing Completions	▲ 1.0%	▲ 12.8%
SF Completions	▲ 4.4%	▲ 11.9%
New SF House Sales	▲ 7.2%	▼ 19.4%
Private Residential Construction Spending	▼ 0.6%	▼ 3.9%
SF Construction Spending	▼ 1.7%	▼ 18.4%
Existing House Sales ¹	▼ 0.7%	▼ 36.9%

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

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

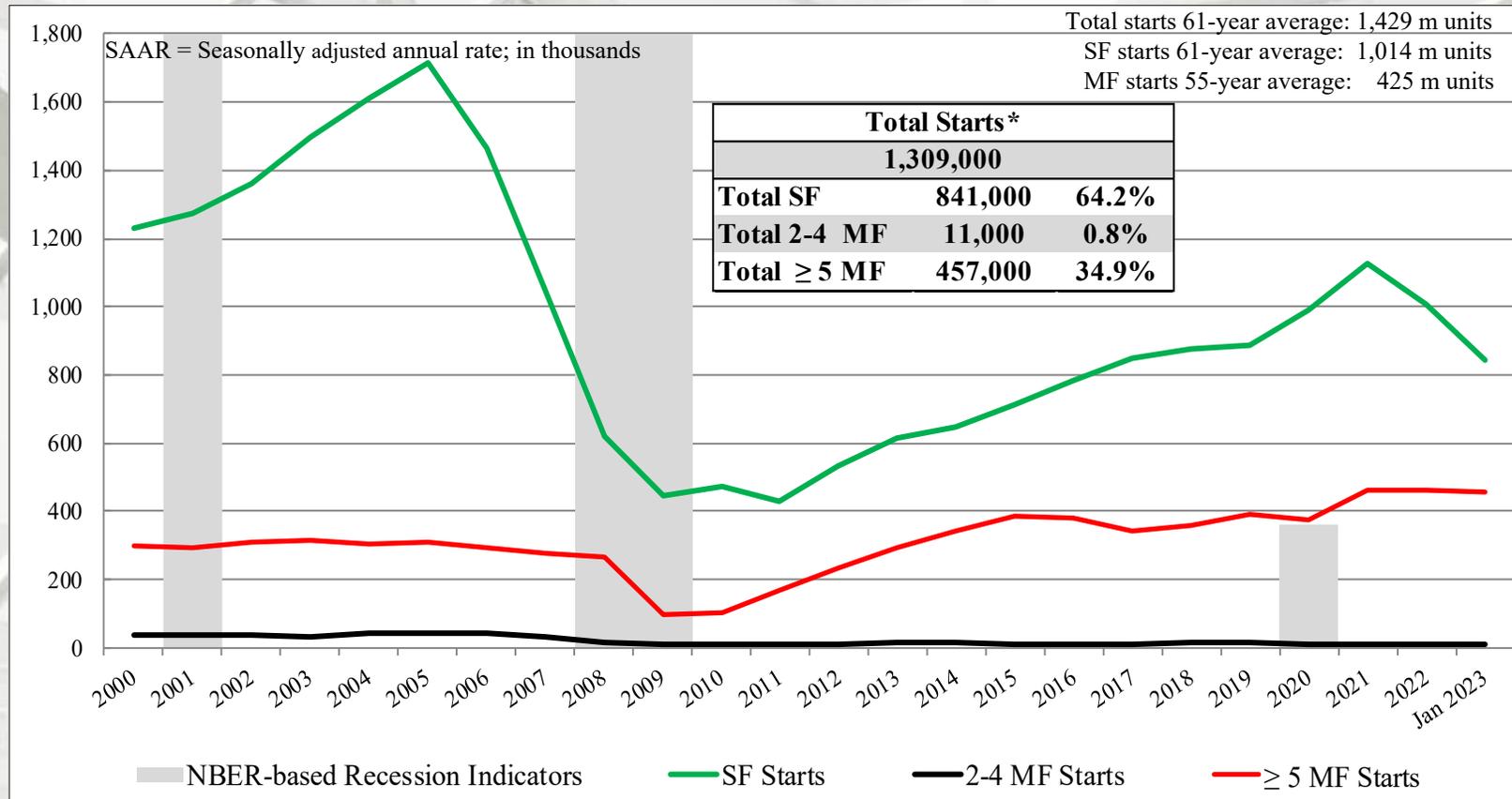
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
January	1,309,000	841,000	11,000	457,000
December	1,371,000	879,000	9,000	483,000
2022	1,666,000	1,157,000	10,000	499,000
M/M change	-4.5%	-4.3%	22.2%	-5.4%
Y/Y change	-21.4%	-27.3%	10.0%	-8.4%

* 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

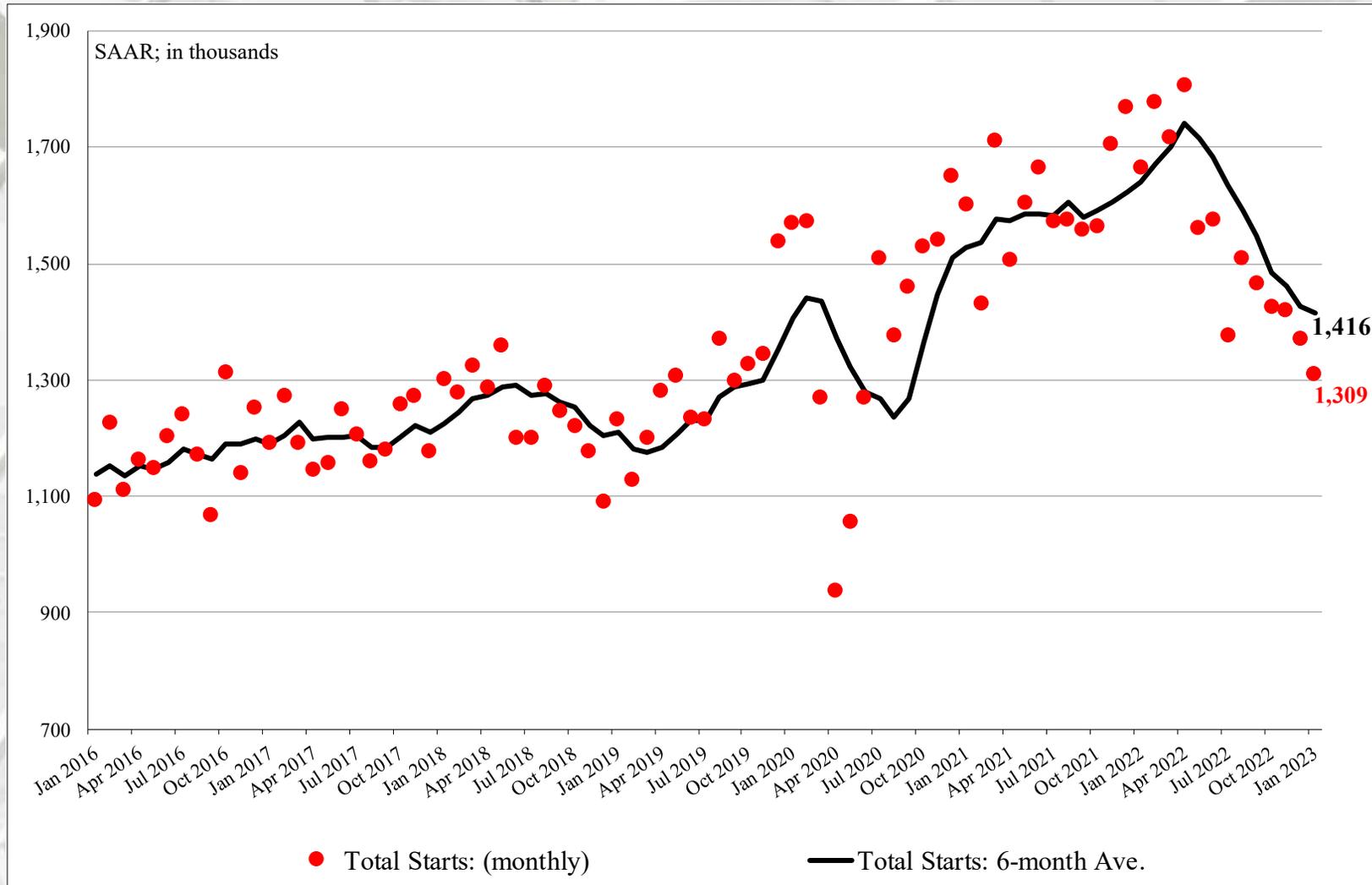


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF)).

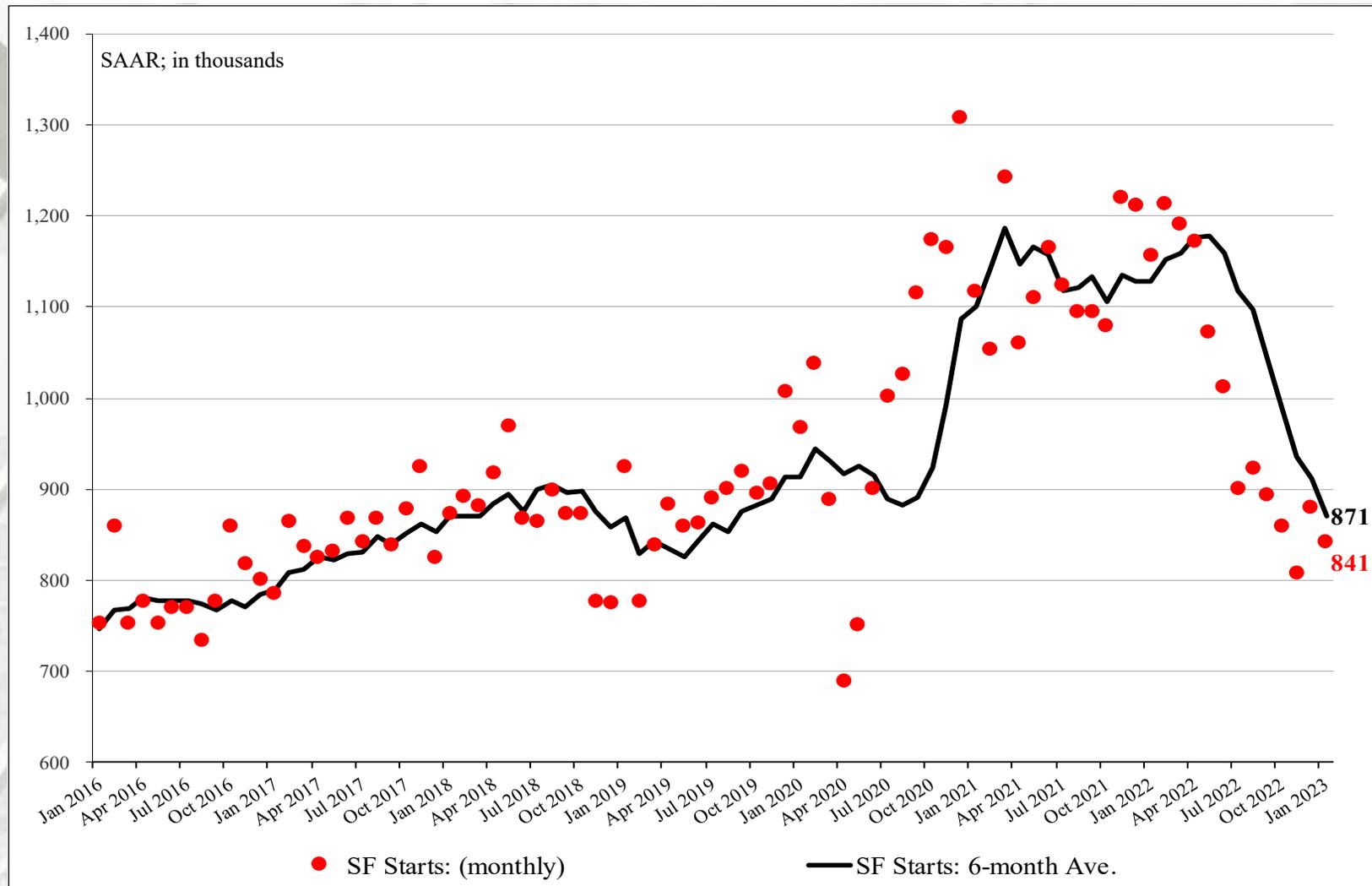
* Percentage of total starts.

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

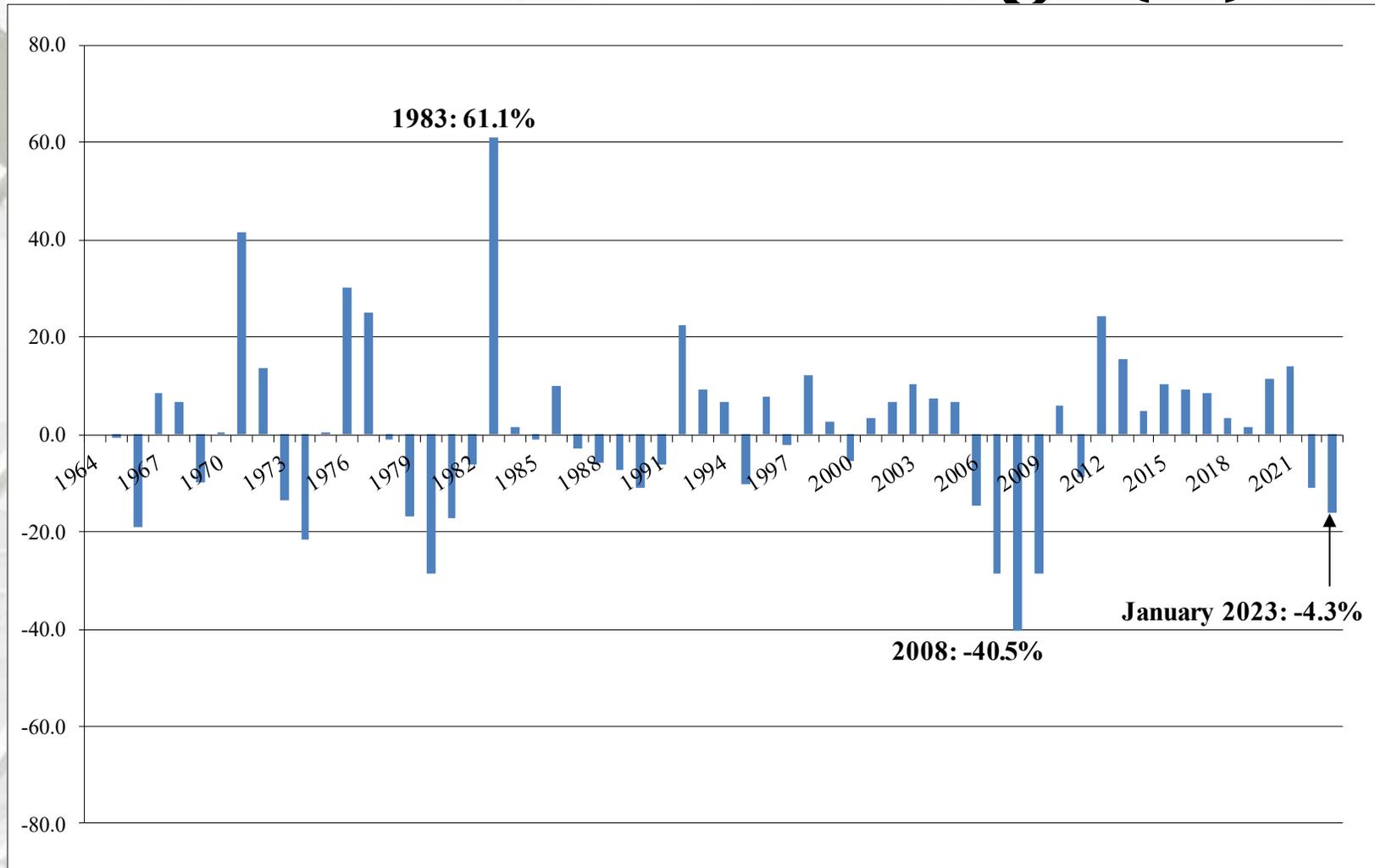
Total Housing Starts: Six-Month Average



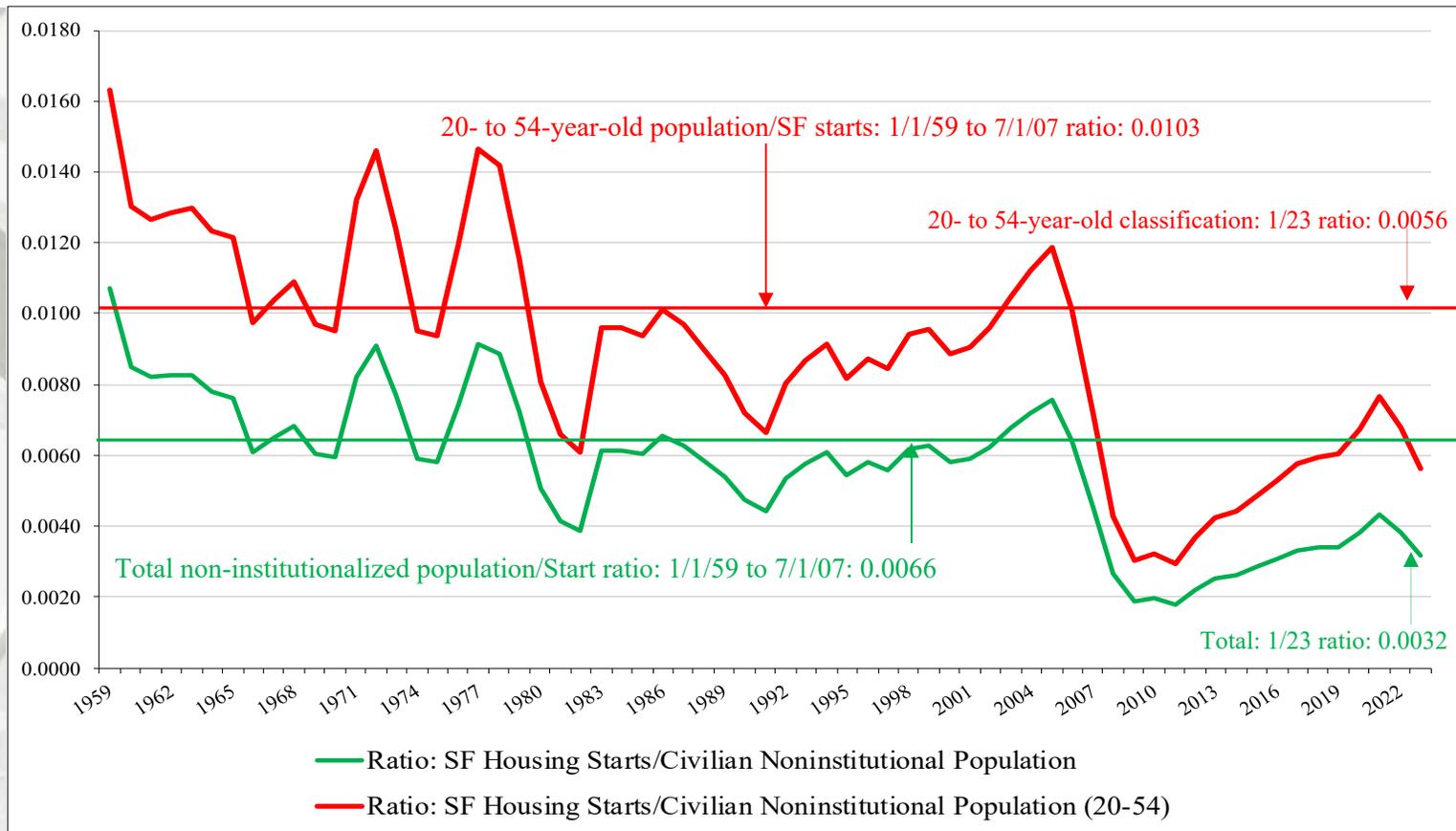
SF Housing Starts: Six-Month Moving Average



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



New SF Starts

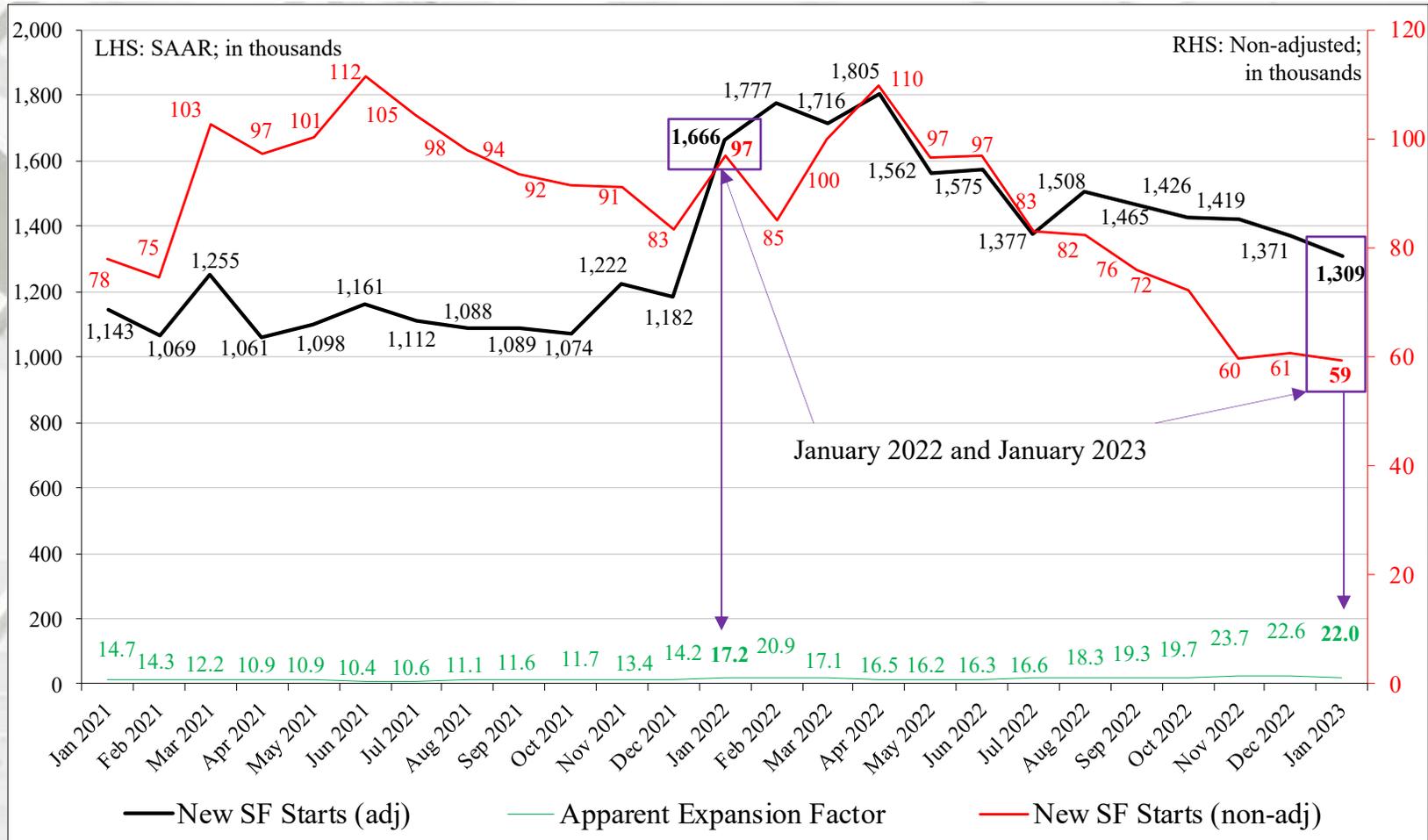


New SF starts adjusted for the US population

From January 1959 to January 2007, the long-term ratio of new SF starts to the total US non-institutionalized population to is 0.0066. In January 2022 it was 0.0032 – a decrease from December. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in January 2023 it was 0.0056 – also a decline from December (0.0068). 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**
January	119,000	59,000	60,000
December	206,000	122,000	84,000
2022	105,000	48,000	57,000
M/M change	-42.2%	-51.6%	-28.6%
Y/Y change	13.3%	22.9%	5.3%
	MW Total	MW SF	MW MF
January	123,000	99,000	24,000
December	166,000	92,000	74,000
2022	196,000	142,000	54,000
M/M change	-25.9%	7.6%	-67.6%
Y/Y change	-37.2%	-30.3%	-55.6%

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).

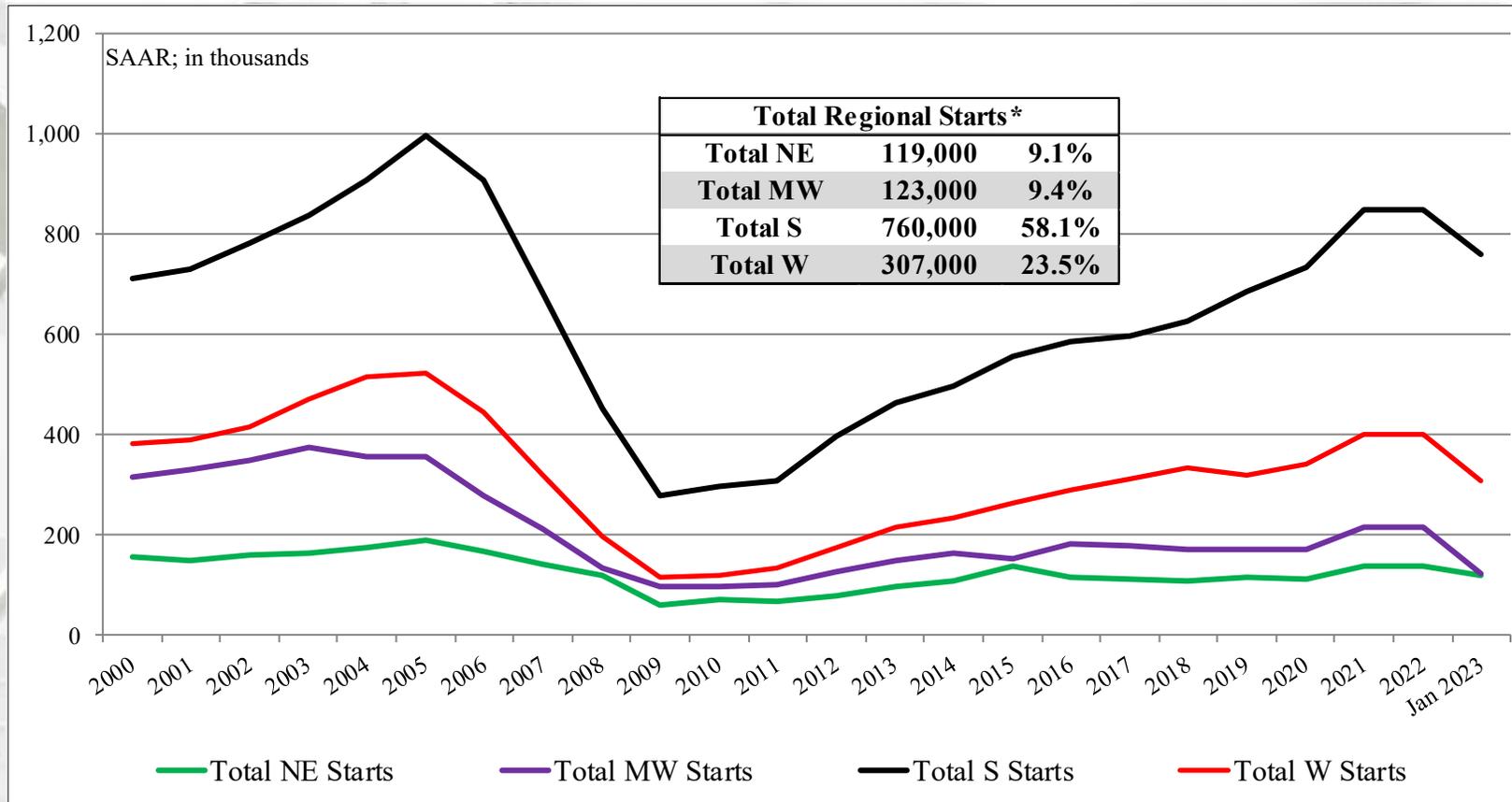
New Housing Starts by Region

	S Total	S SF	S MF**
January	760,000	549,000	211,000
December	708,000	492,000	216,000
2022	919,000	661,000	258,000
M/M change	7.3%	11.6%	-2.3%
Y/Y change	-17.3%	-16.9%	-18.2%
	W Total	W SF	W MF
January	307,000	134,000	173,000
December	291,000	173,000	118,000
2022	446,000	306,000	140,000
M/M change	5.5%	-22.5%	46.6%
Y/Y change	-31.2%	-56.2%	23.6%

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

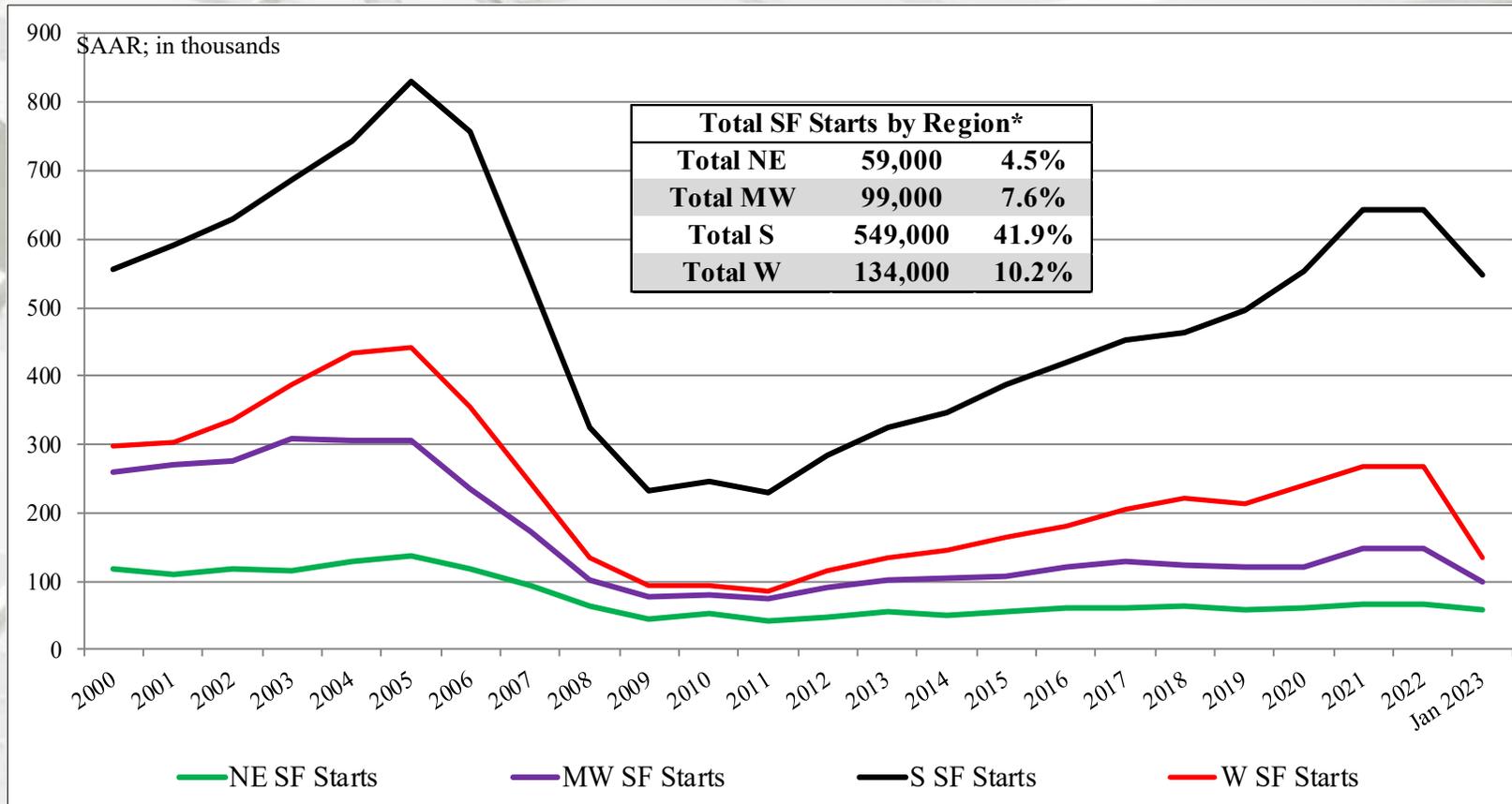


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

Total SF Housing Starts by Region

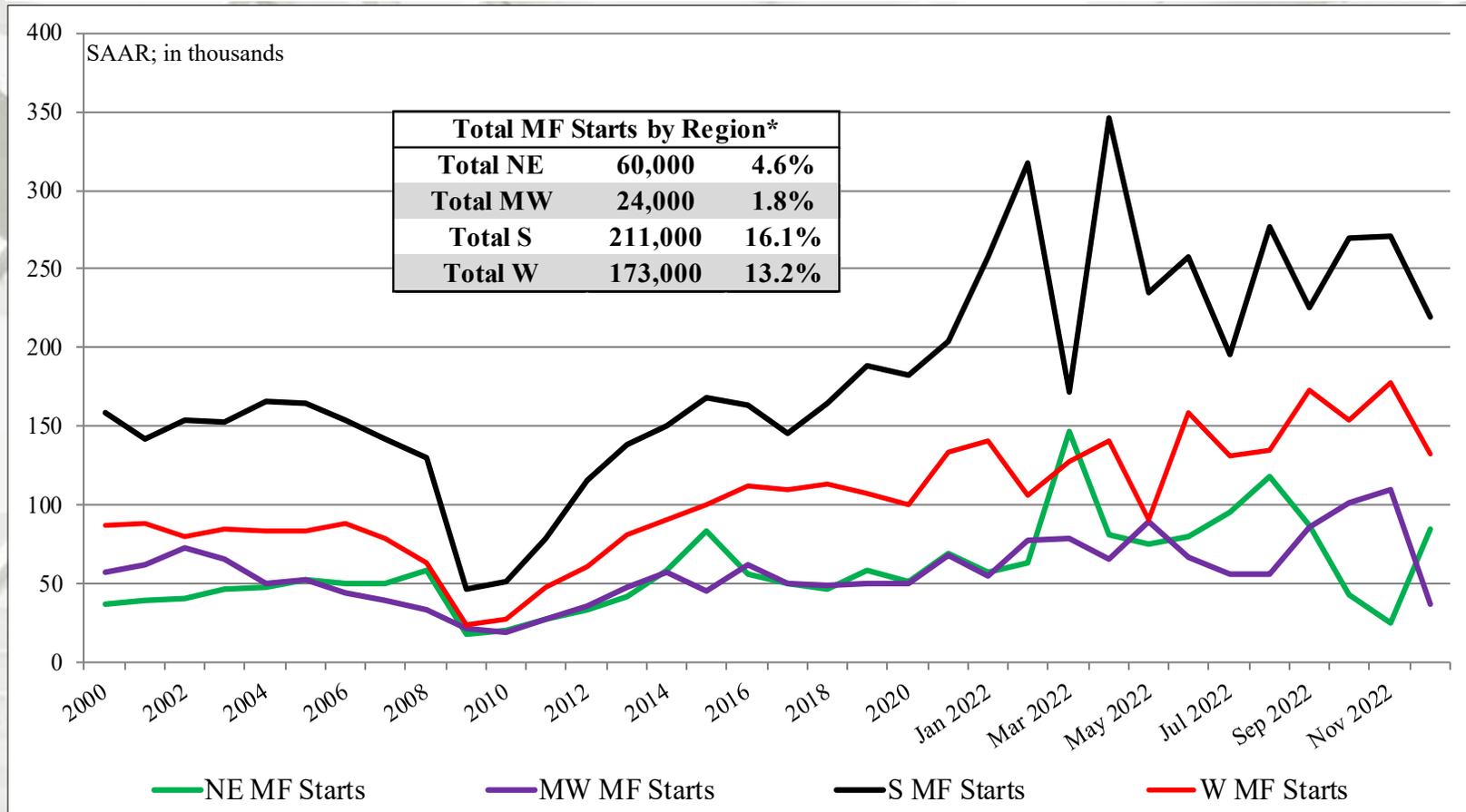


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

MF Housing Starts by Region

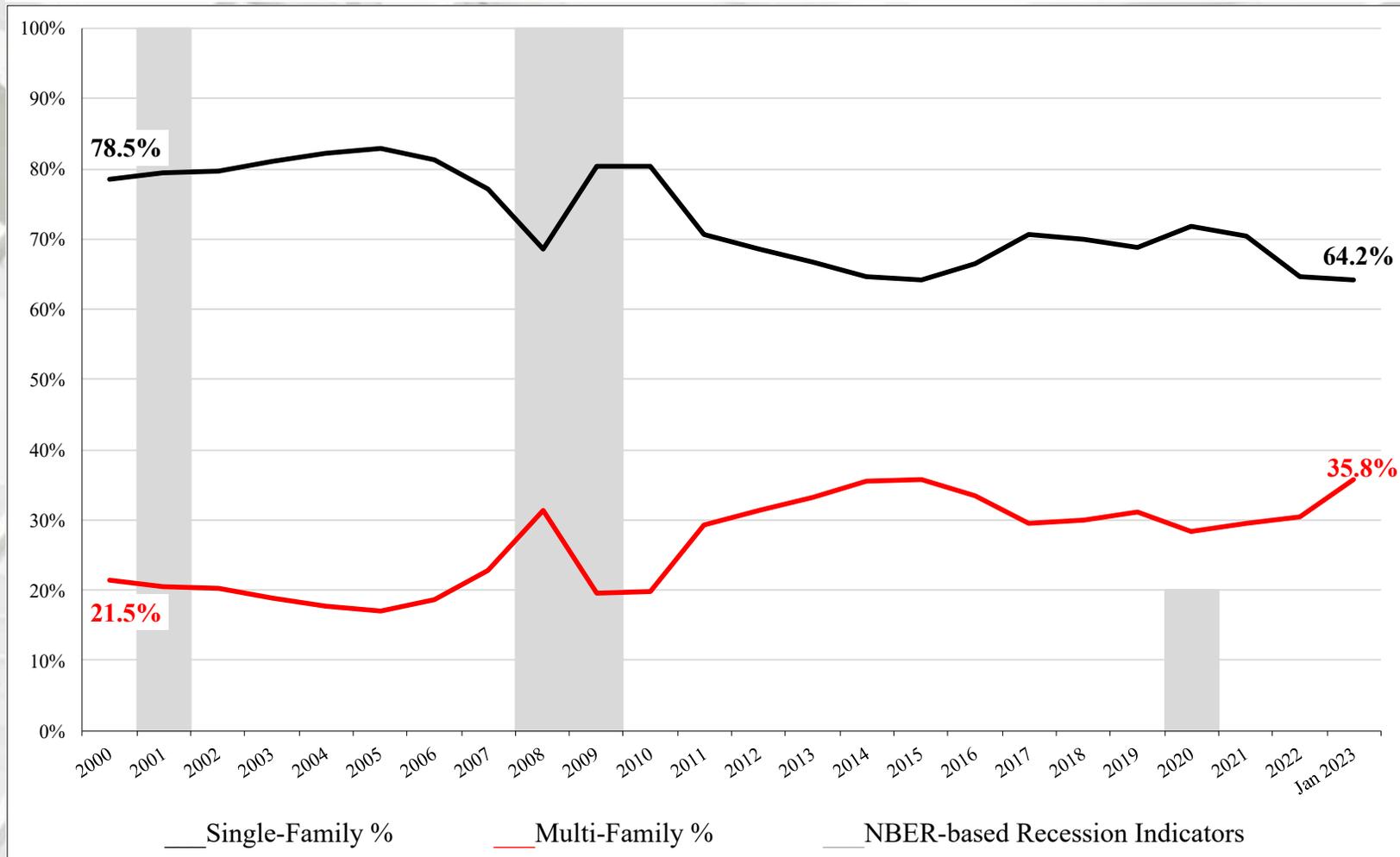


NE = Northeast, MW = Midwest, S = South, W = West

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

* Percentage of total starts.

SF vs. MF Housing Starts (%)



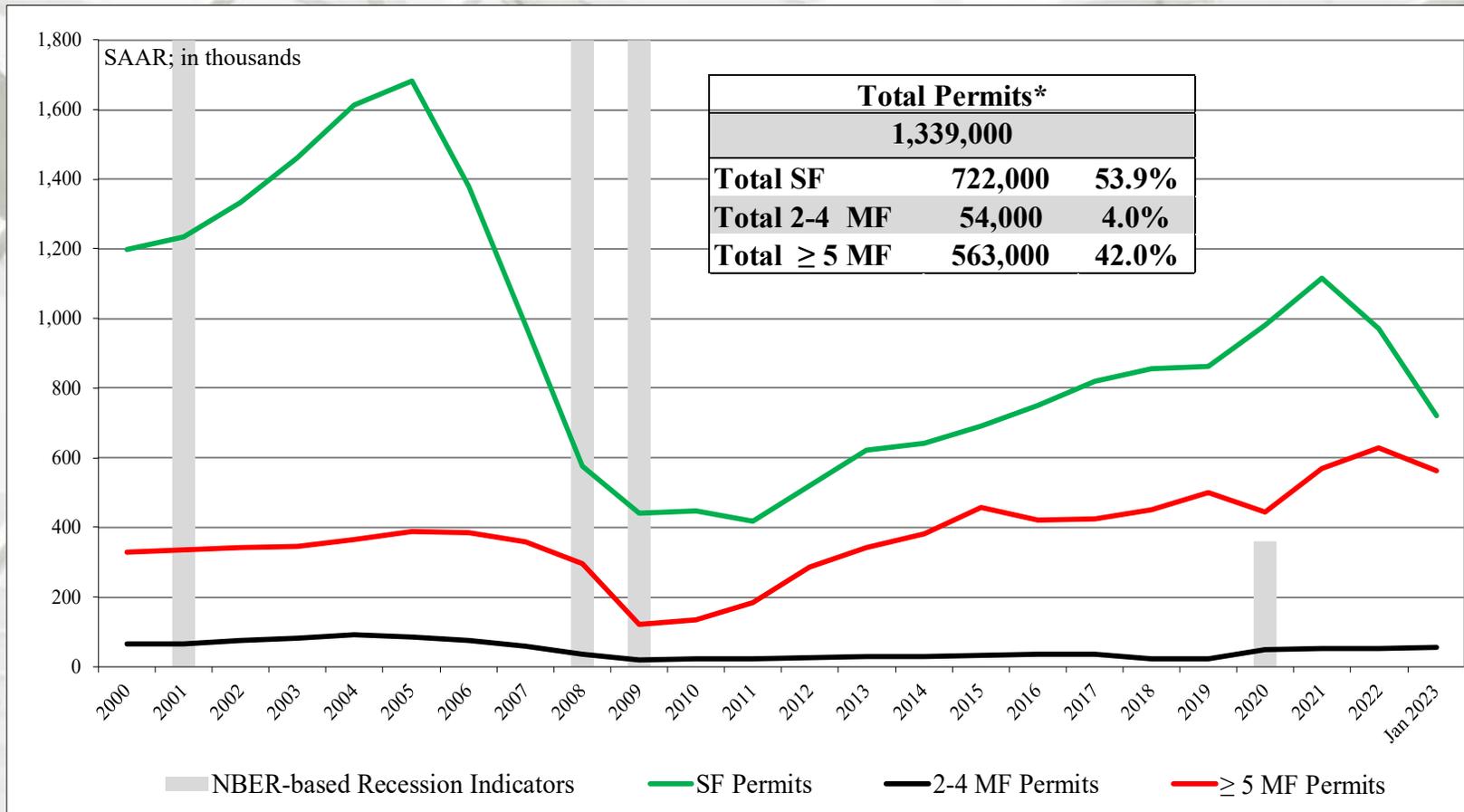
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
January	1,339,000	722,000	54,000	563,000
December	1,337,000	731,000	46,000	560,000
2022	1,841,000	1,197,000	57,000	587,000
M/M change	0.1%	-1.2%	17.4%	0.5%
Y/Y change	-27.3%	-39.7%	-5.3%	-4.1%

* 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**
January	106,000	55,000	51,000
December	115,000	55,000	60,000
2022	151,000	71,000	80,000
M/M change	-7.8%	0.0%	-15.0%
Y/Y change	-29.8%	-22.5%	-36.3%
	MW Total*	MW SF	MW MF**
January	178,000	92,000	86,000
December	175,000	94,000	81,000
2022	270,000	158,000	112,000
M/M change	1.7%	-2.1%	6.2%
Y/Y change	-34.1%	-41.8%	-23.2%

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

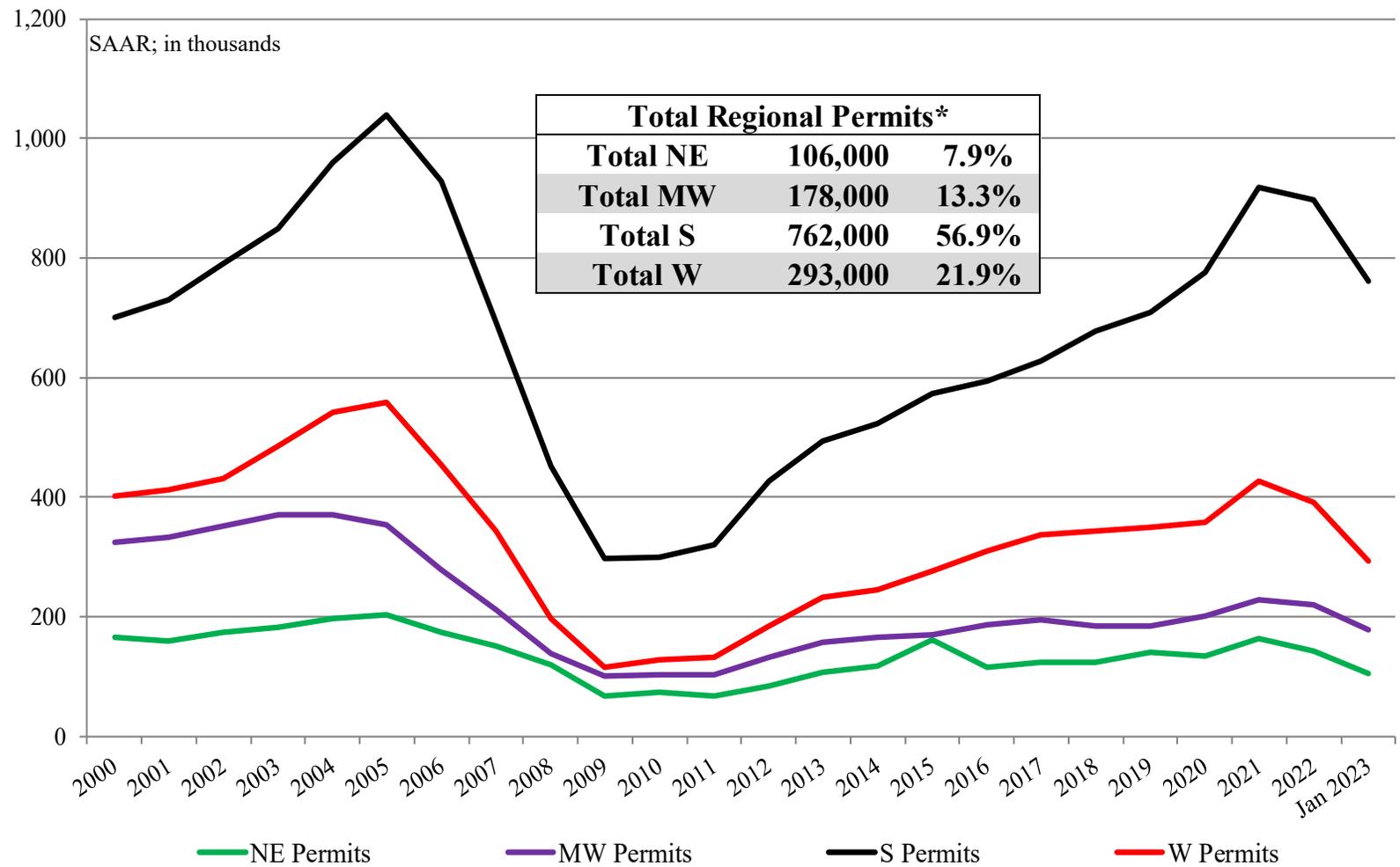
	S Total*	S SF	S MF**
January	762,000	430,000	332,000
December	740,000	440,000	300,000
2022	958,000	679,000	279,000
M/M change	3.0%	-2.3%	10.7%
Y/Y change	-20.5%	-36.7%	19.0%
	W Total*	W SF	W MF**
January	293,000	145,000	148,000
December	307,000	142,000	165,000
2022	462,000	289,000	173,000
M/M change	-4.6%	2.1%	-10.3%
Y/Y change	-36.6%	-49.8%	-14.5%

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).

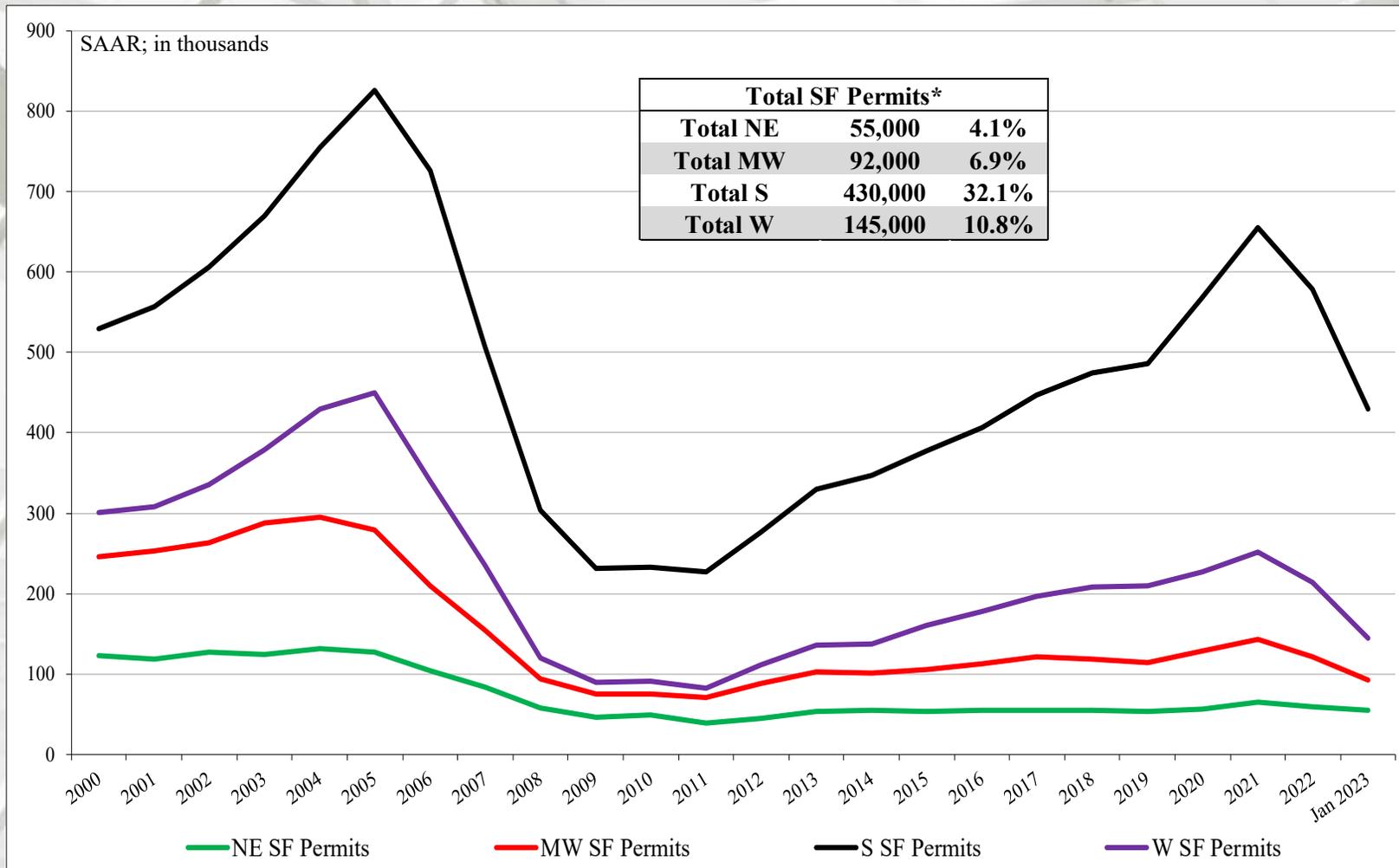
Total Housing Permits by Region



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

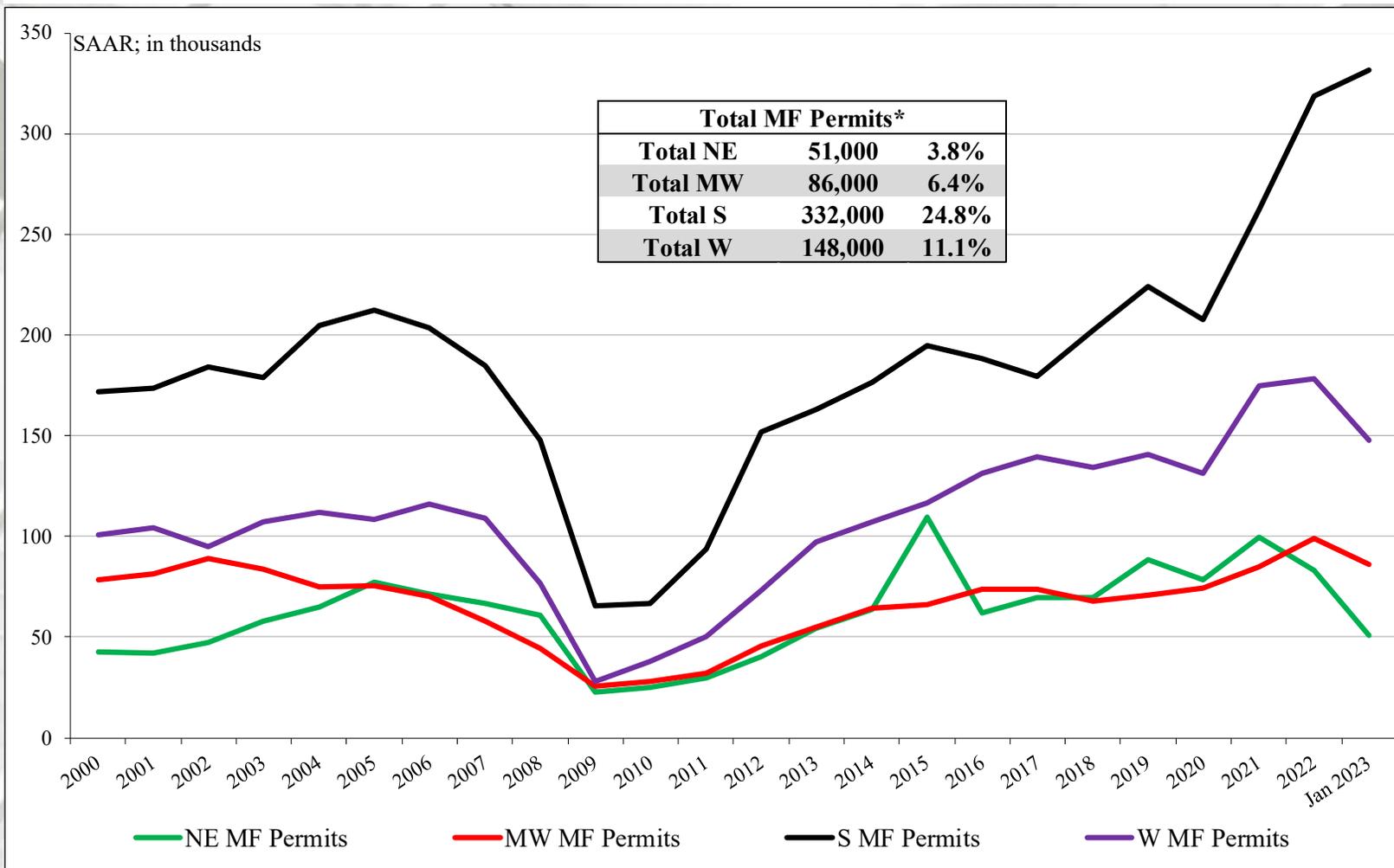
* Percentage of total permits.

SF Housing Permits by Region



* Percentage of total permits.

MF Housing Permits by Region



* Percentage of total permits.

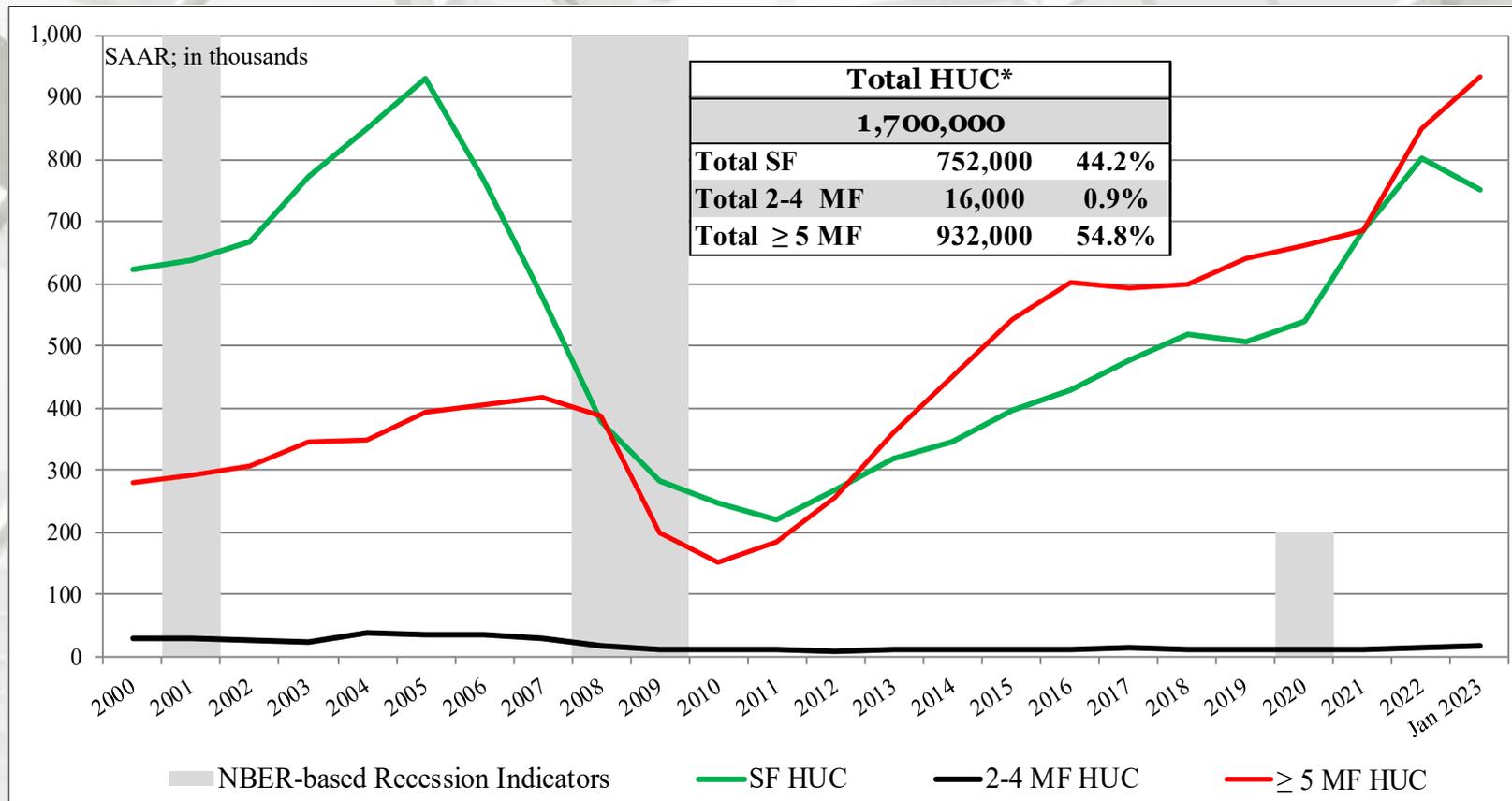
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
December	1,700,000	752,000	16,000	932,000
November	1,702,000	760,000	16,000	926,000
2021	1,553,000	790,000	13,000	750,000
M/M change	-0.1%	-1.1%	0.0%	0.6%
Y/Y change	9.5%	-4.8%	23.1%	24.3%

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

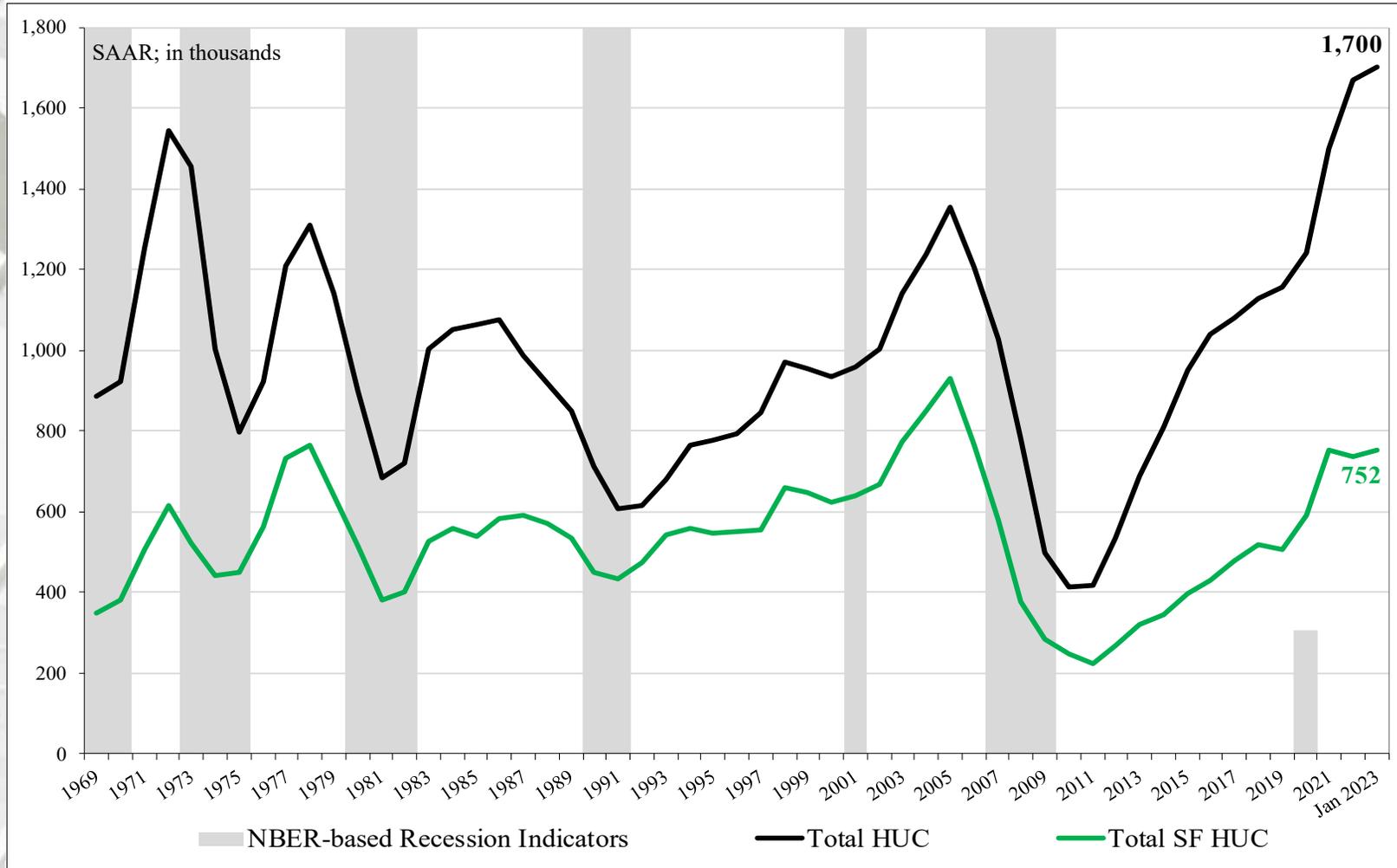


US DOC does not report 2 to 4 multi-family under construction directly, this is an estimation (Total under constructions – (SF + 5-unit MF HUC)).

* 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).

Total Housing Under Construction



In January total housing units under construction (HUC) were 1,700,000 units, greater than January 1973 total of 1,628,000 units. January's SF HUC reading, 752,000 units, which was substantially less than reported for January 2006 (929,000 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**
January	218,000	67,000	151,000
December	217,000	66,000	151,000
2022	199,000	61,000	138,000
M/M change	0.5%	1.5%	0.0%
Y/Y change	9.5%	9.8%	9.4%
	MW Total	MW SF	MW MF
January	218,000	100,000	118,000
December	220,000	100,000	120,000
2022	202,000	109,000	93,000
M/M change	-0.9%	0.0%	-1.7%
Y/Y change	7.9%	-8.3%	26.9%

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).

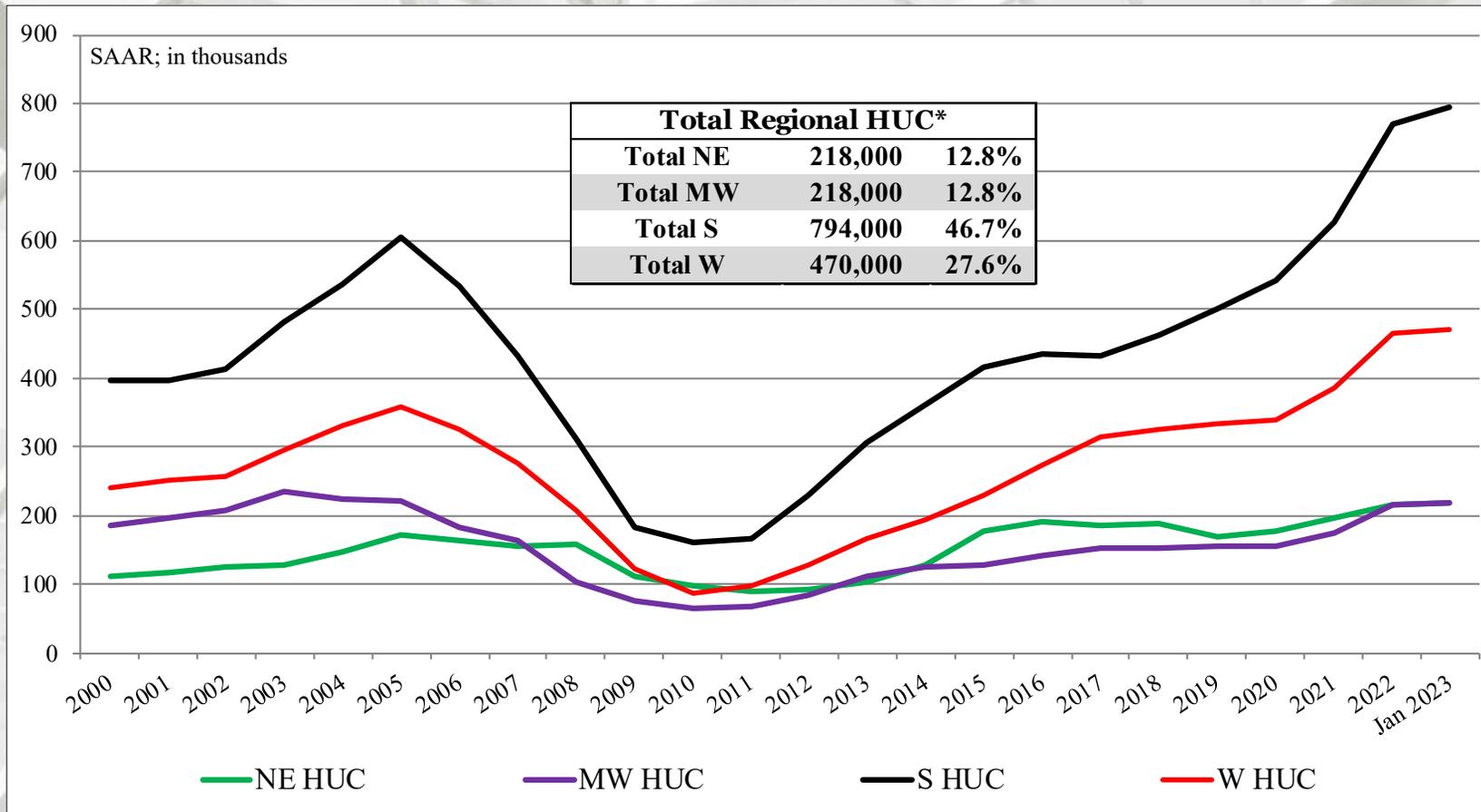
New Housing Under Construction by Region

	S Total	S SF	S MF**
January	794,000	400,000	394,000
December	793,000	403,000	390,000
2022	713,000	416,000	297,000
M/M change	0.1%	-0.7%	1.0%
Y/Y change	11.4%	-3.8%	32.7%
	W Total	W SF	W MF
January	470,000	185,000	285,000
December	472,000	191,000	281,000
2022	439,000	204,000	235,000
M/M change	-0.4%	-3.1%	1.4%
Y/Y change	7.1%	-9.3%	21.3%

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

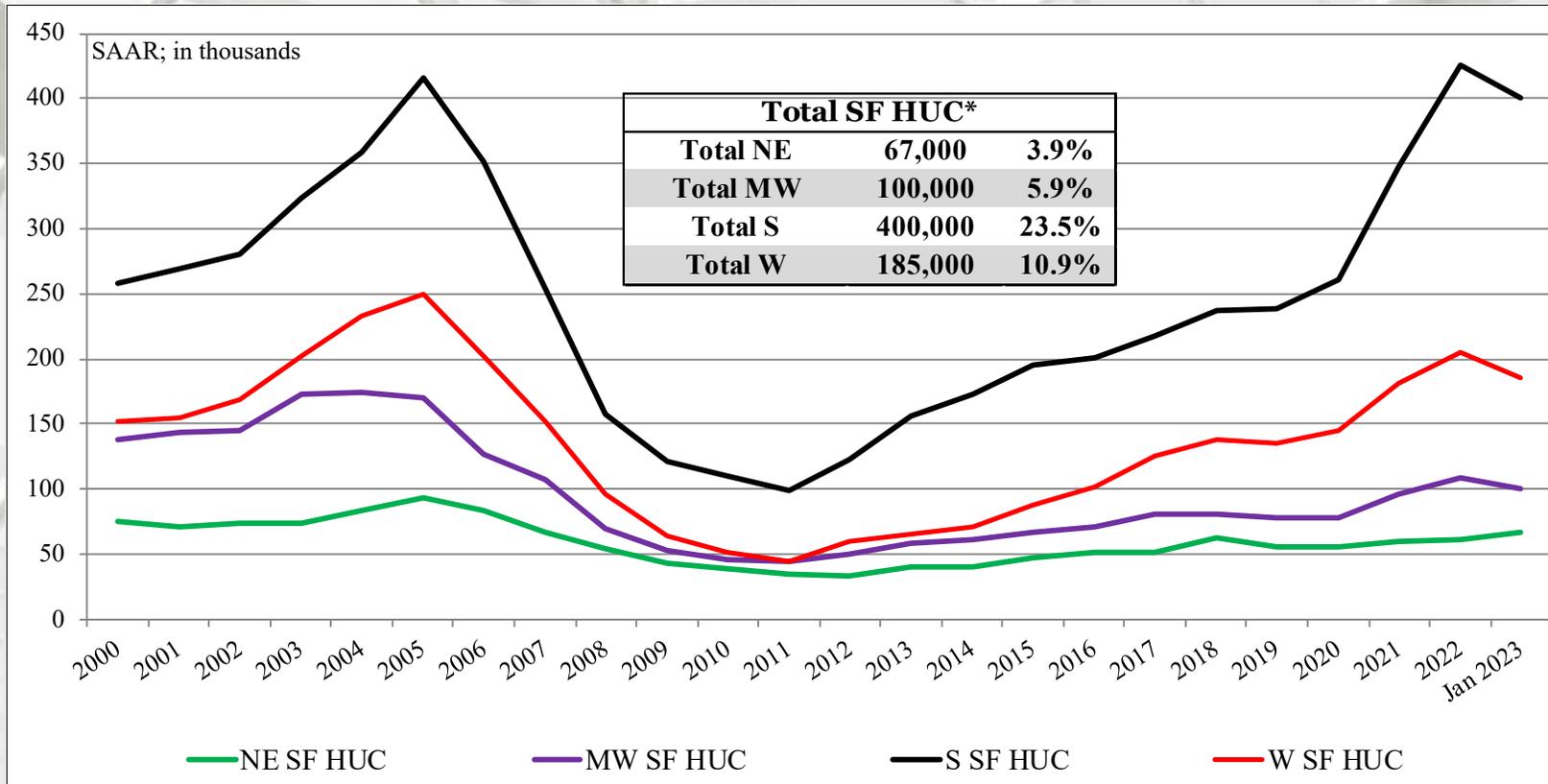


NE = Northeast, MW = Midwest, S = South, W = West

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

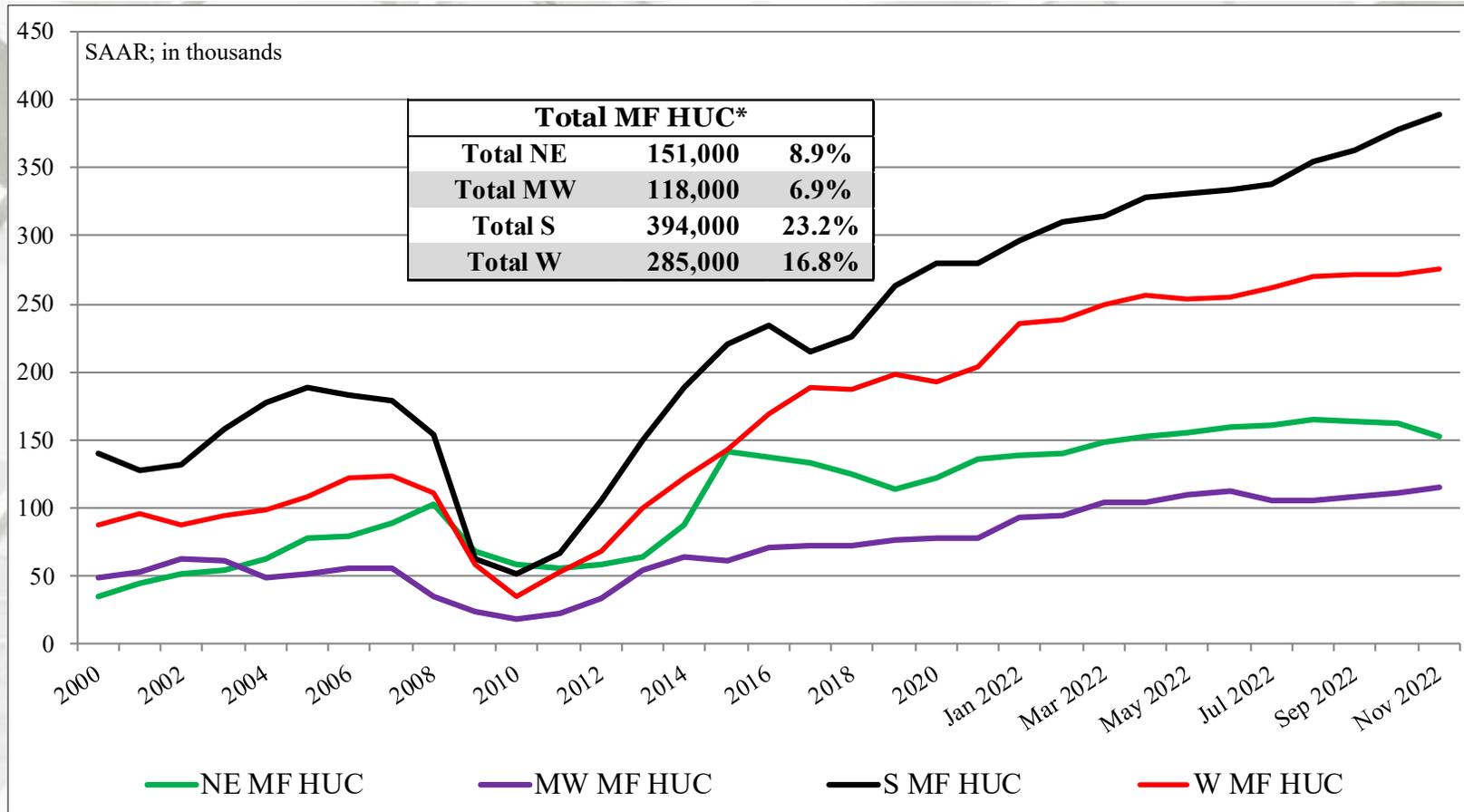


NE = Northeast, MW = Midwest, S = South, W = West.

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.

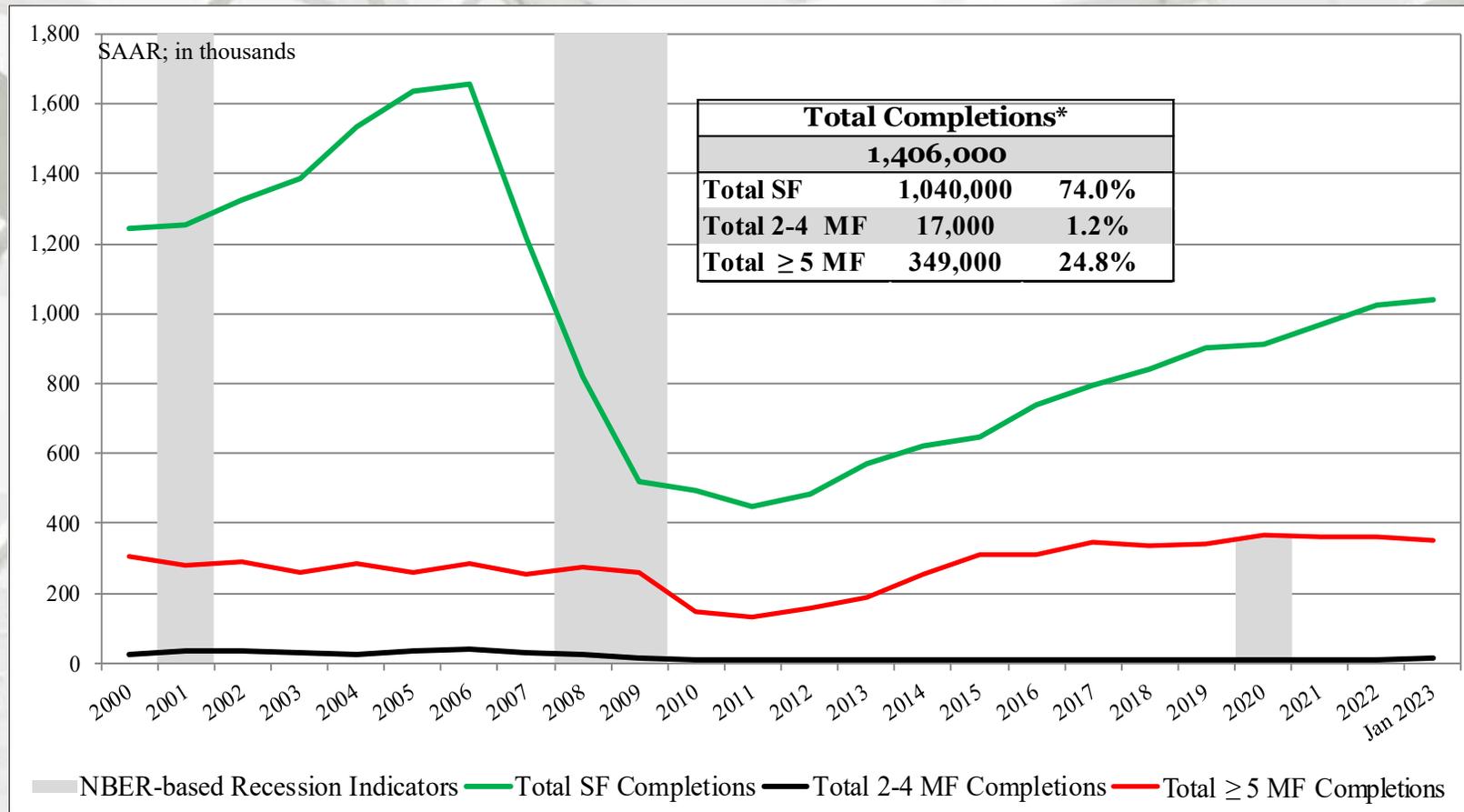
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
January	1,406,000	1,040,000	17,000	349,000
December	1,392,000	996,000	14,000	382,000
2022	1,247,000	929,000	13,000	305,000
M/M change	1.0%	4.4%	21.4%	-8.6%
Y/Y change	12.8%	11.9%	30.8%	14.4%

* 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**
January	110,000	60,000	50,000
December	115,000	60,000	55,000
2022	84,000	51,000	33,000
M/M change	-4.3%	0.0%	-9.1%
Y/Y change	31.0%	17.6%	51.5%
	MW Total	MW SF	MW MF
January	178,000	141,000	37,000
December	192,000	134,000	58,000
2022	139,000	125,000	14,000
M/M change	-7.3%	5.2%	-36.2%
Y/Y change	28.1%	12.8%	164.3%

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

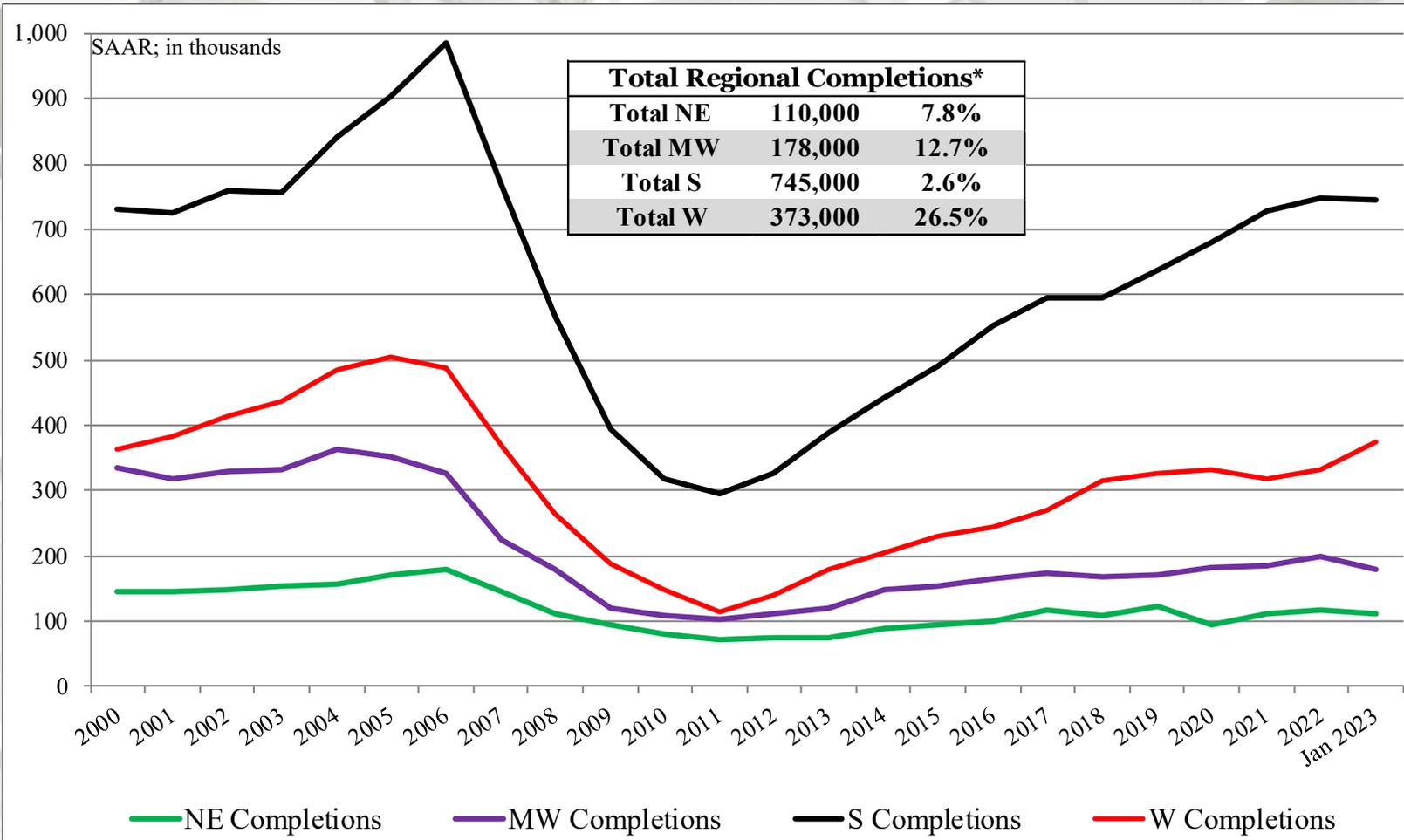
	S Total	S SF	S MF**
January	745,000	585,000	160,000
December	762,000	588,000	174,000
2022	670,000	517,000	153,000
M/M change	-2.2%	-0.5%	-8.0%
Y/Y change	11.2%	13.2%	4.6%
	W Total	W SF	W MF
January	373,000	254,000	119,000
December	323,000	214,000	109,000
2022	354,000	236,000	118,000
M/M change	15.5%	18.7%	9.2%
Y/Y change	5.4%	7.6%	0.8%

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

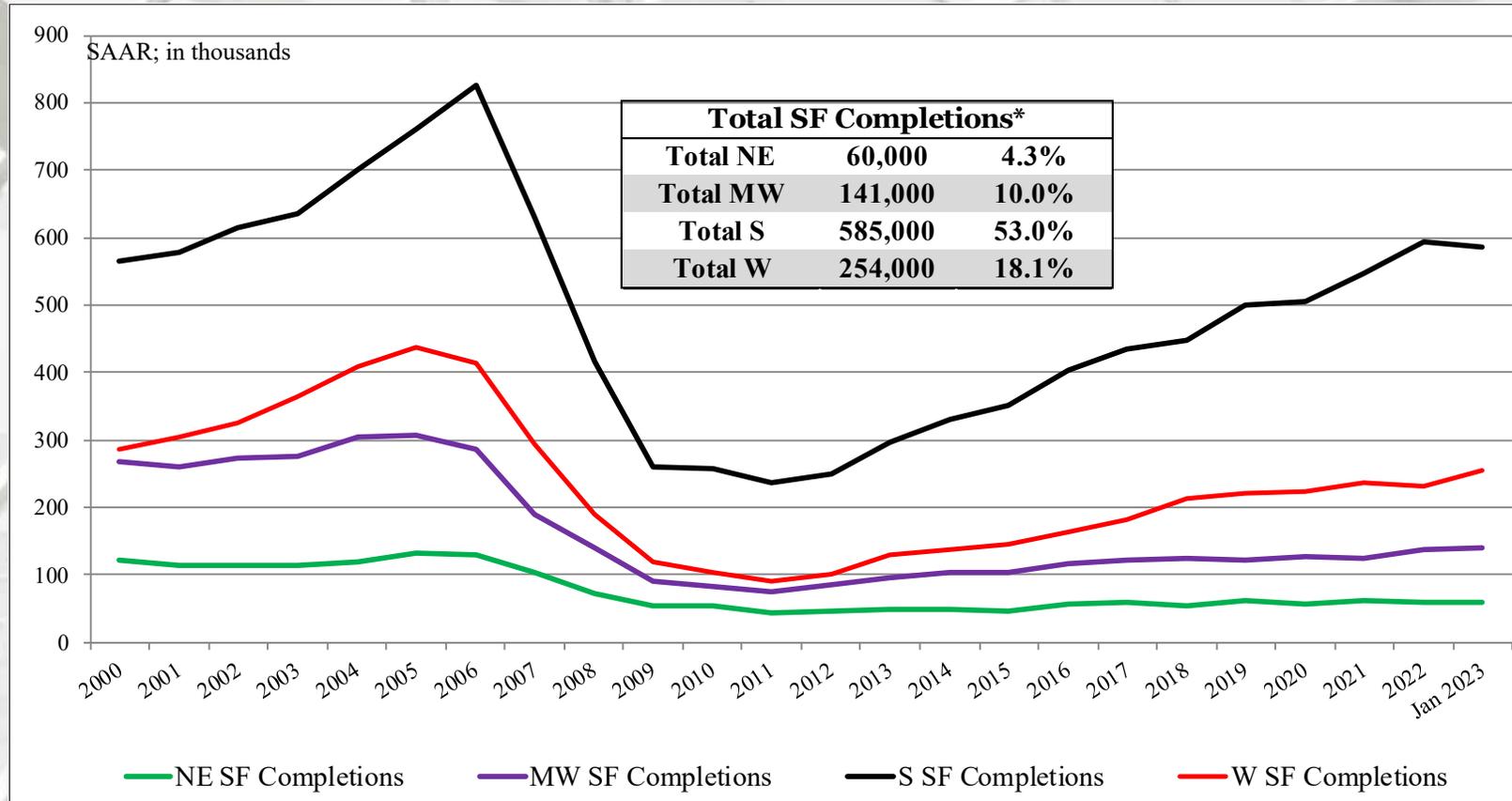
Total Housing Completions by Region



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

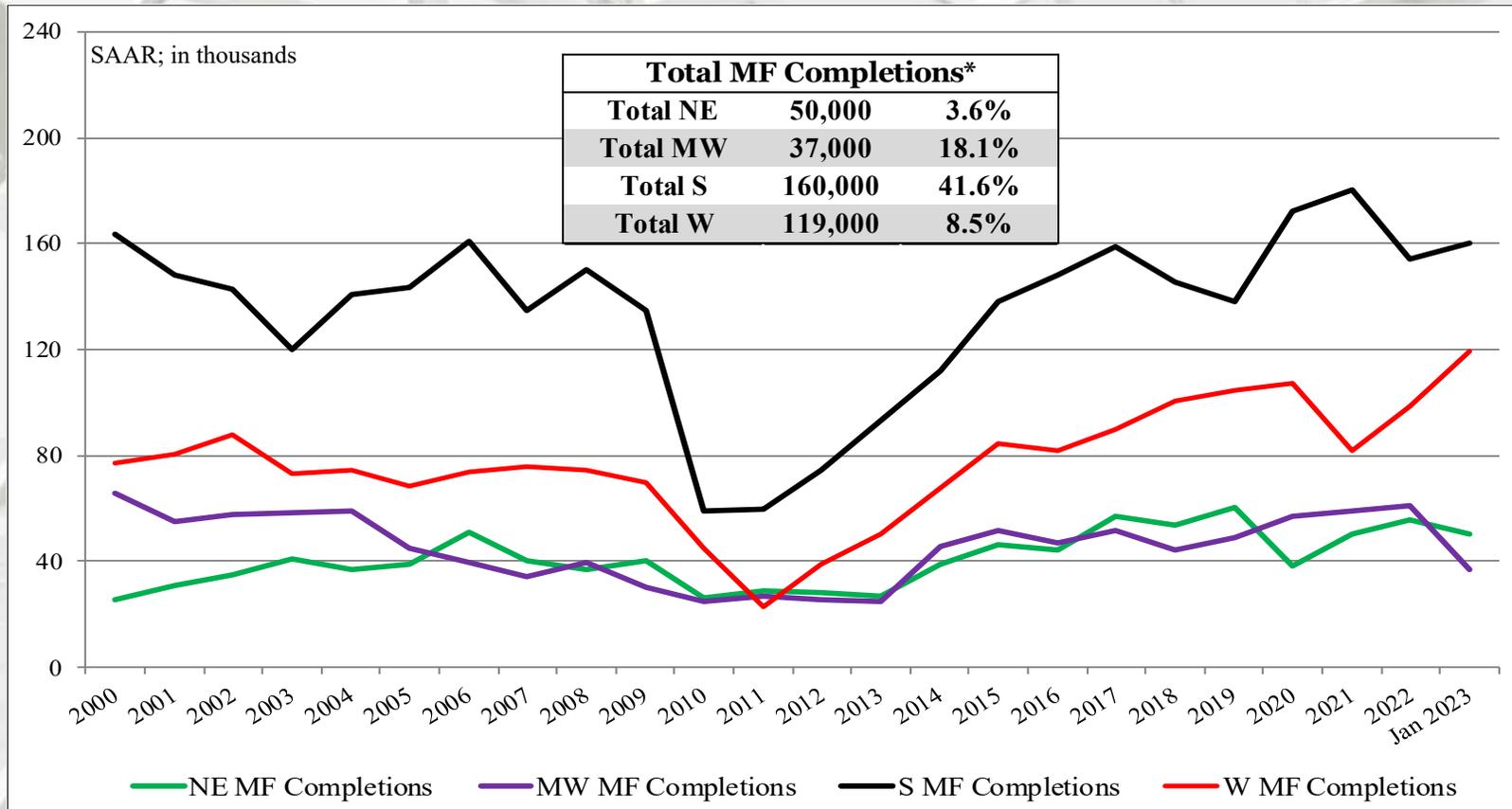


NE = Northeast, MW = Midwest, S = South, W = West

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

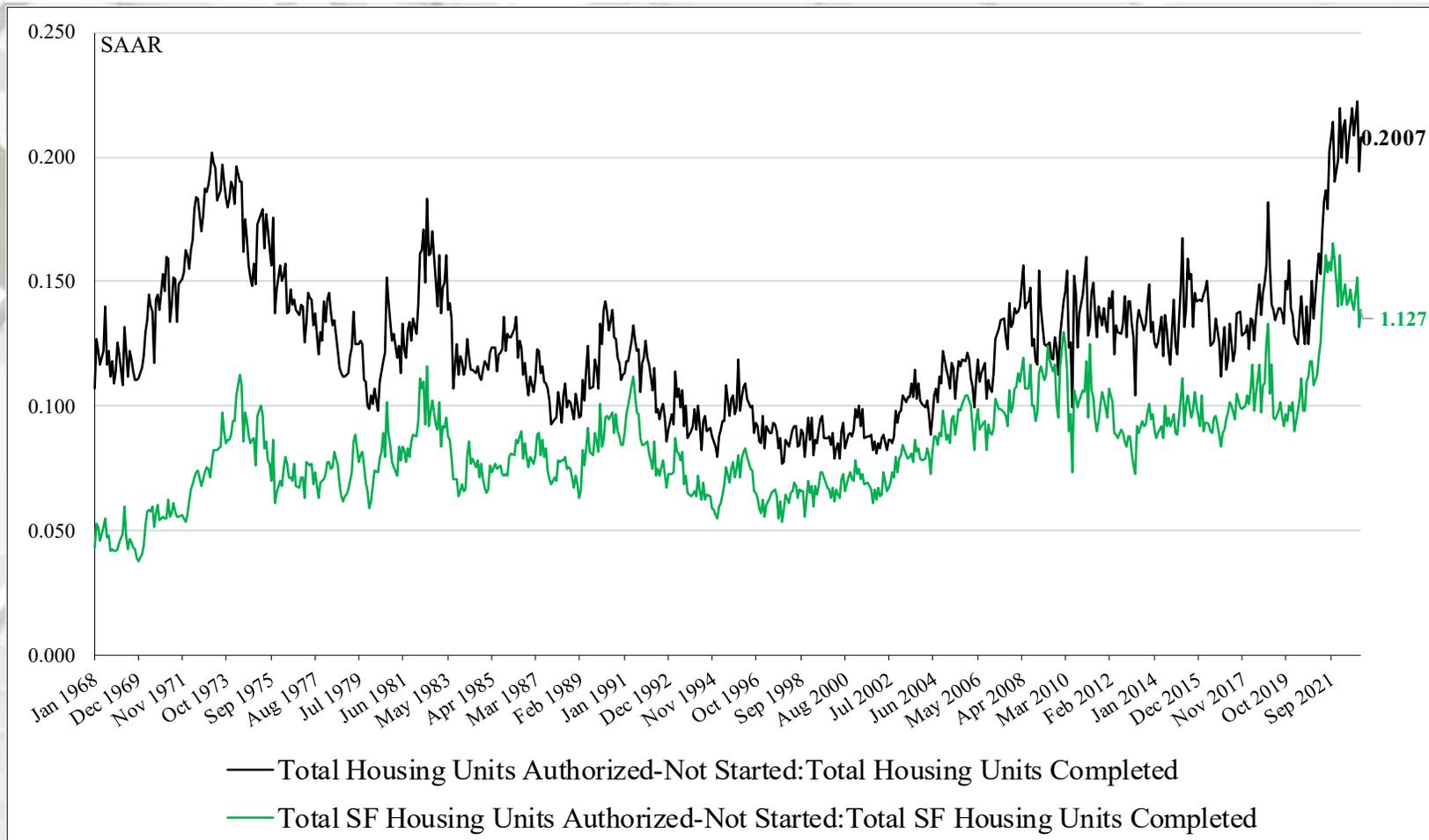


NE = Northeast, MW = Midwest, S = South, W = West

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

Ratio of Housing Units Authorized & Not Started to Housing Units Completed: M/M

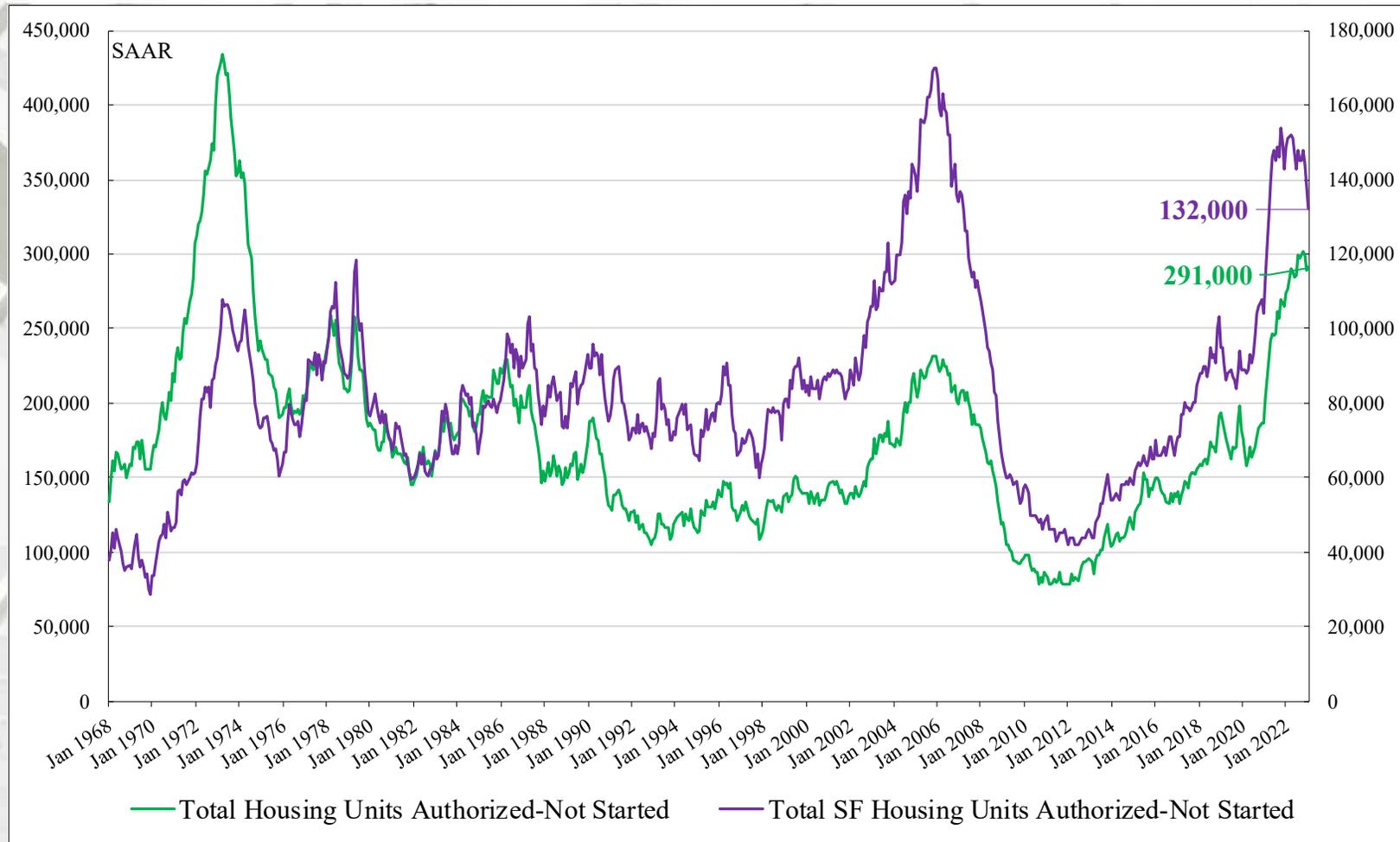


Authorized, Not Started vs. Housing Completions

Total authorized units “not” started decreased to 291,000 in January and SF authorized units “not” started decreased to 132,000 in January.

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

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



Authorized, Not Started vs. Housing Completions

Total authorized units “not” started decreased to 132,000 in January and SF authorized units “not” started decreased to 132,000 in January.

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

New Single-Family House Sales

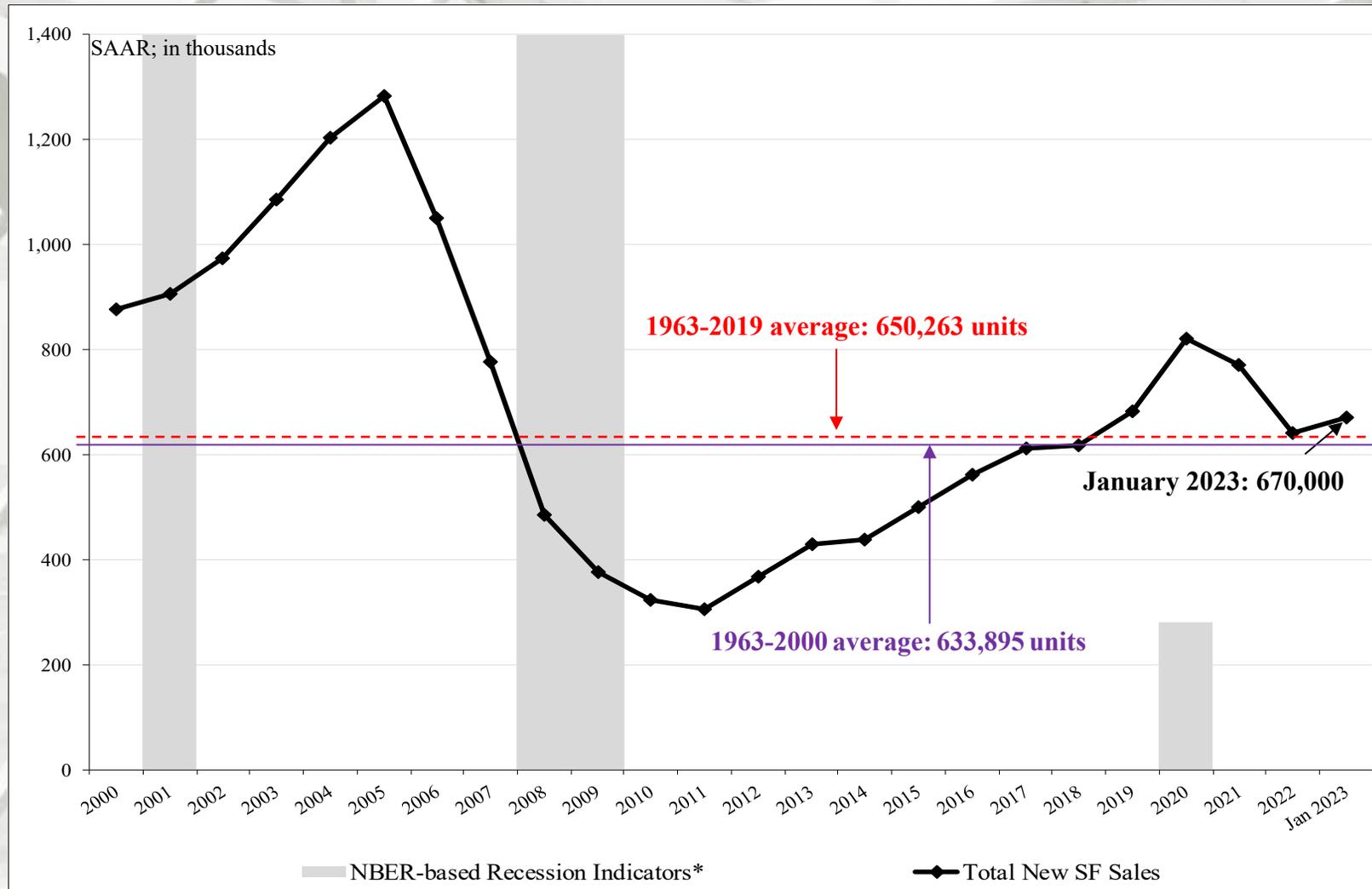
	New SF Sales*	Median Price	Mean Price	Month's Supply
January	670,000	\$427,500	\$474,400	7.9
December	625,000	\$465,600	\$544,200	8.7
2022	831,000	\$430,500	\$501,200	5.7
M/M change	7.2%	-8.2%	-12.8%	-9.2%
Y/Y change	-19.4%	-0.7%	-5.3%	38.6%

* 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 greater than the consensus forecast³ of 617 m (range: 610 m to 625 m). The past three month's new SF sales data also were revised:

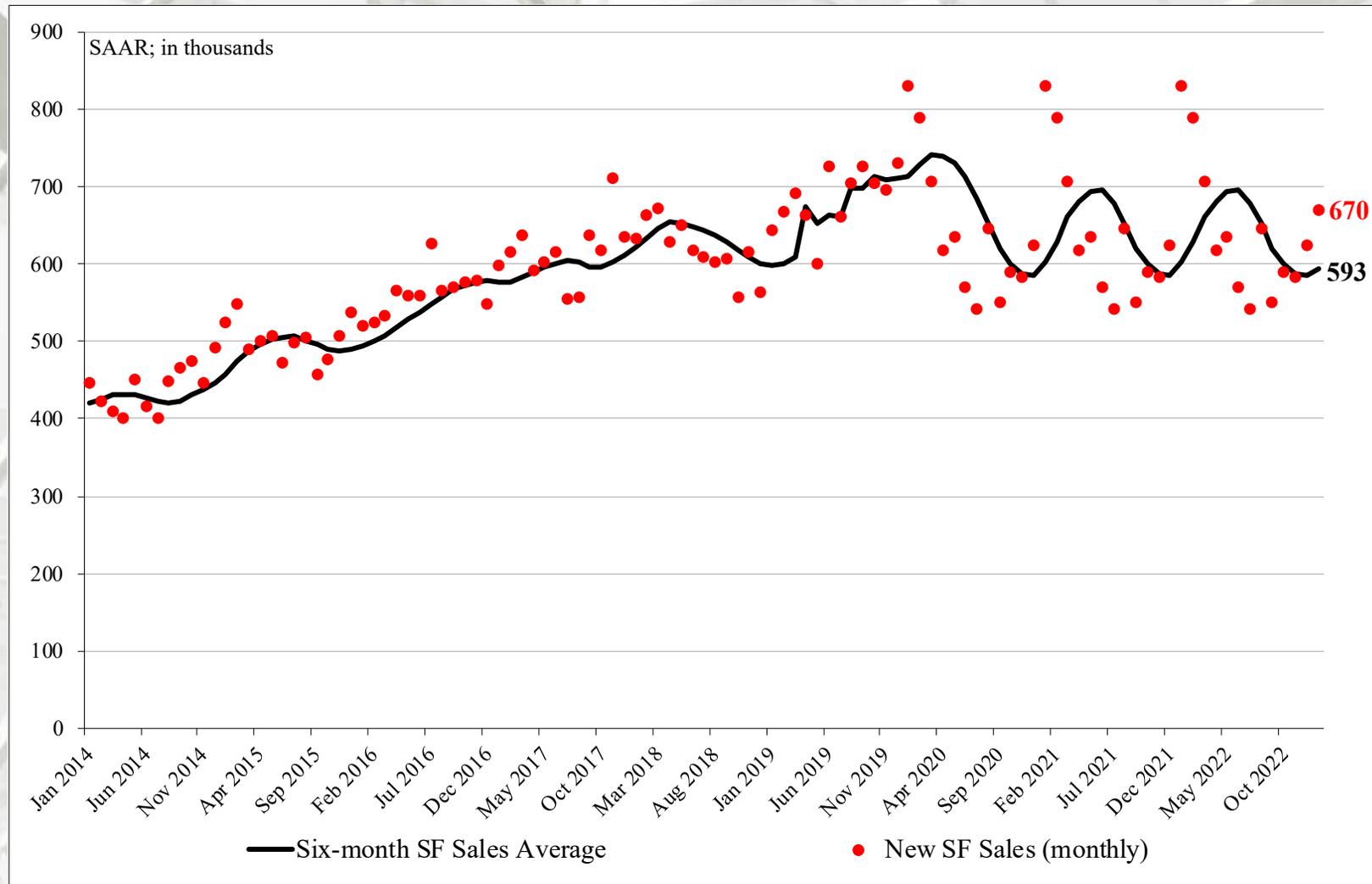
October initial: 632 m, revised to 589 m.
 November initial: 640 m, revised to 583 m.
 December initial: 616 m, revised to 625 m.

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			
January	25,000	67,000	451,000	127,000			
December	31,000	72,000	385,000	137,000			
2022	29,000	102,000	461,000	239,000			
M/M change	-19.4%	-6.9%	17.1%	-7.3%			
Y/Y change	-13.8%	-34.3%	-2.2%	-46.9%			
	≤ \$150m	\$150 - \$199.9m	\$200 - 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m
January ^{1,2,3,4}	500	1,000	8,000	19,000	13,000	13,000	6,000
December	500	500	4,000	14,000	8,000	14,000	7,000
2022	500	500	7,000	21,000	14,000	19,000	7,000
M/M change	0.0%	100.0%	100.0%	35.7%	62.5%	-7.1%	-14.3%
Y/Y change	0.0%	100.0%	14.3%	-9.5%	-7.1%	-31.6%	-14.3%
% of New SF sales	0.8%	1.7%	13.6%	32.2%	22.0%	22.0%	10.2%

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 January not add to total because of rounding.

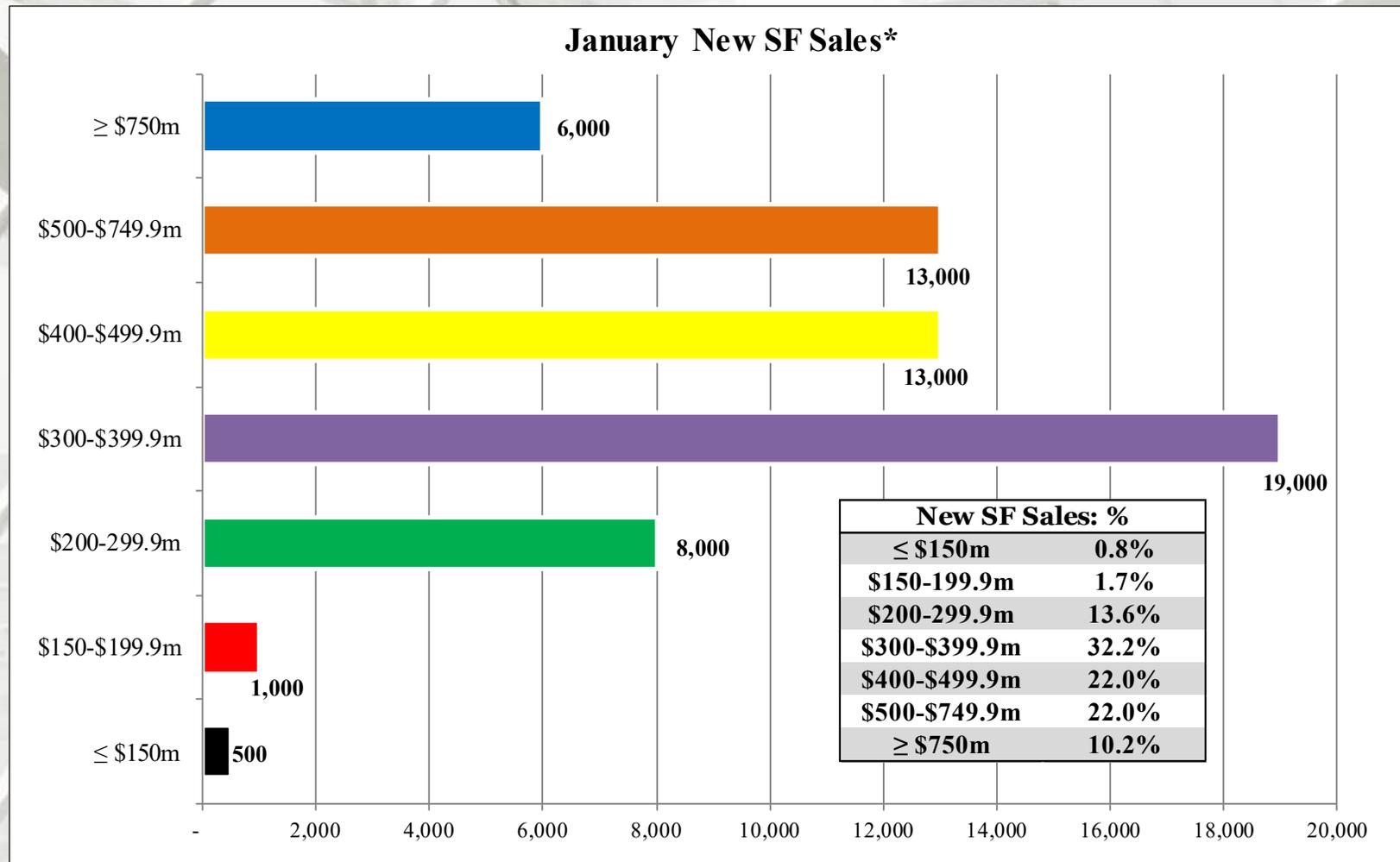
⁴ Housing prices are adjusted at irregular intervals.

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

Sources: ^{1,2,3} <https://www.census.gov/construction/nrs/index.html>; 2/24/23;

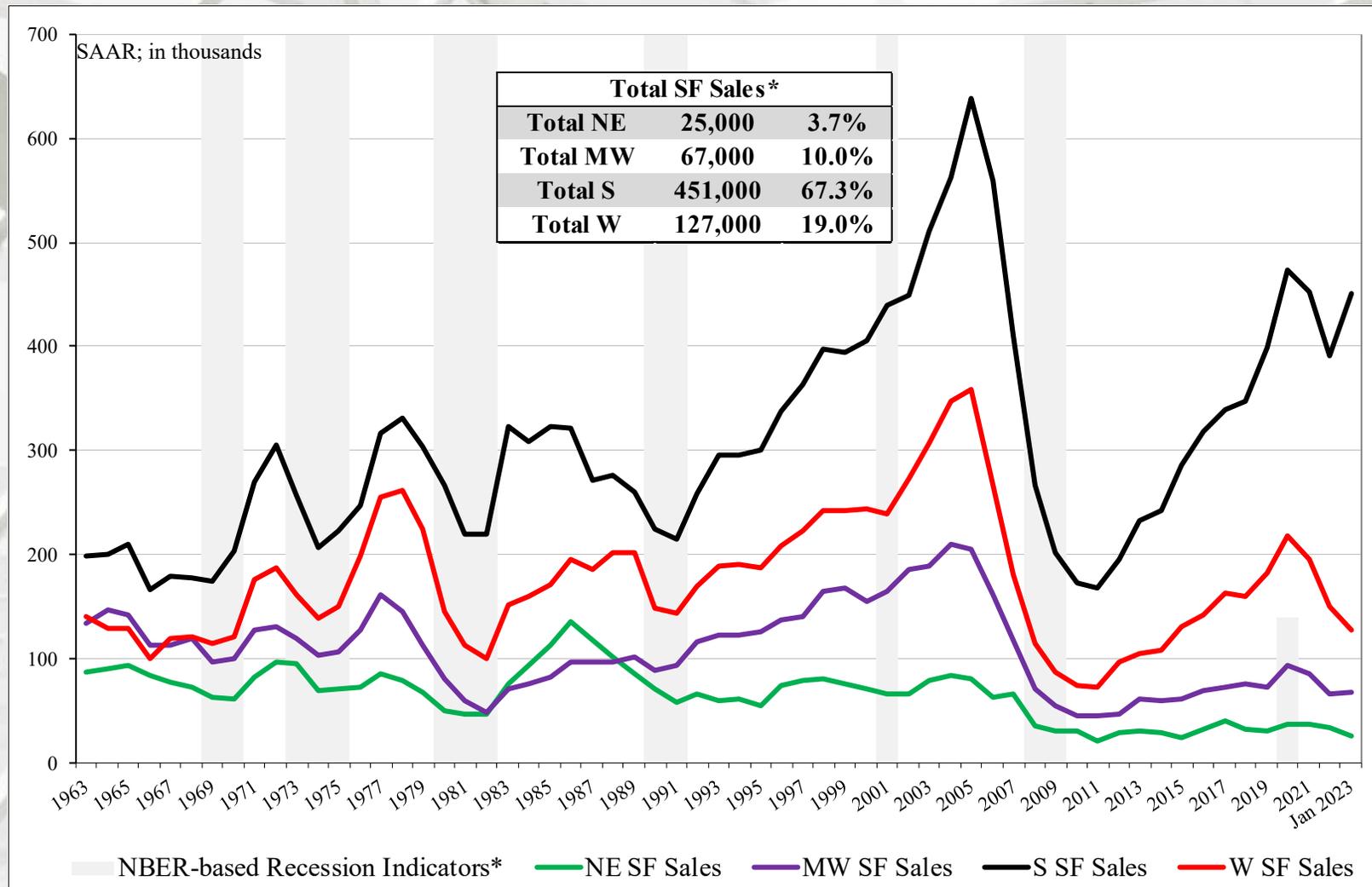
⁴ https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

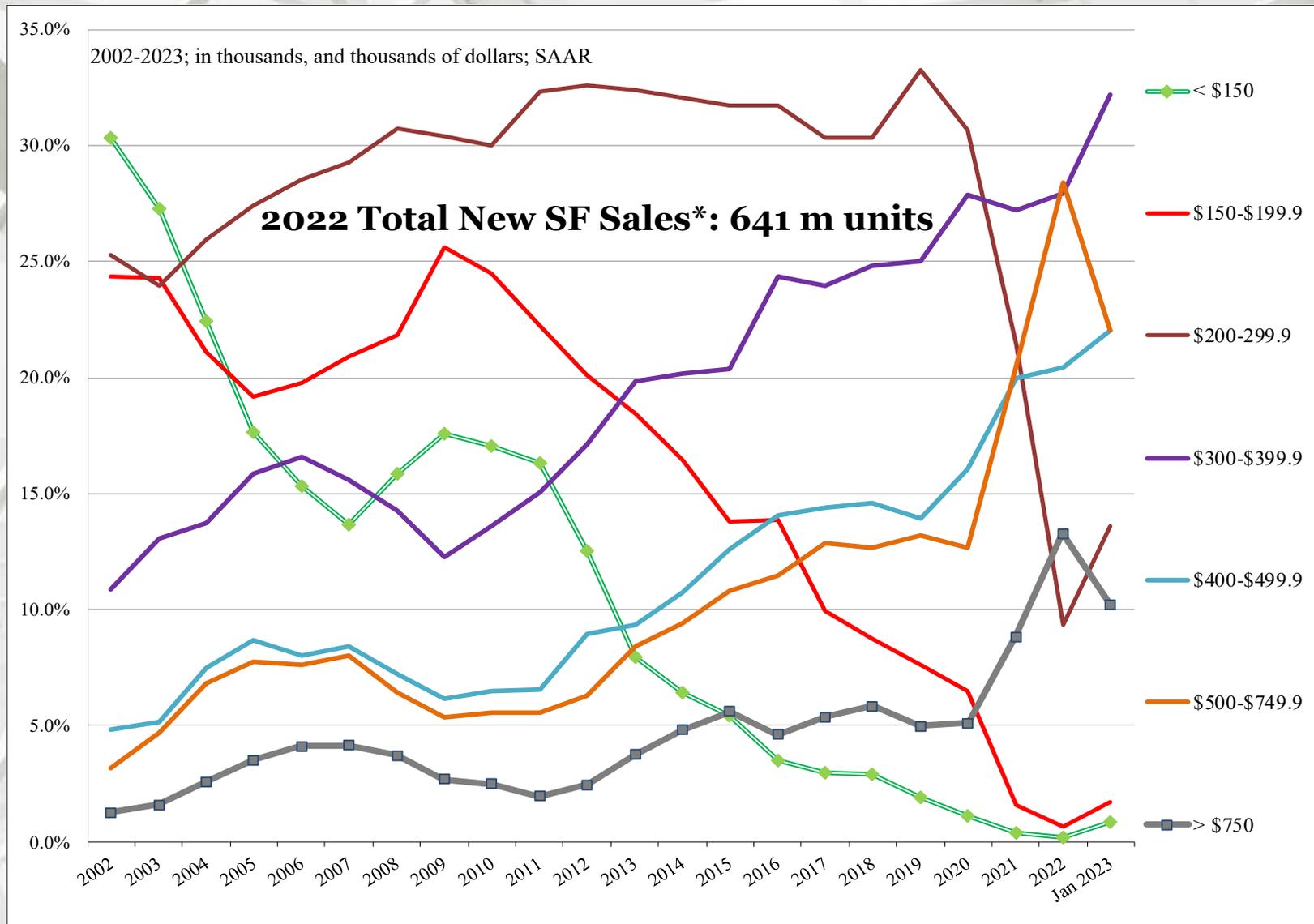


NE = Northeast; MW = Midwest; S = South; W = West

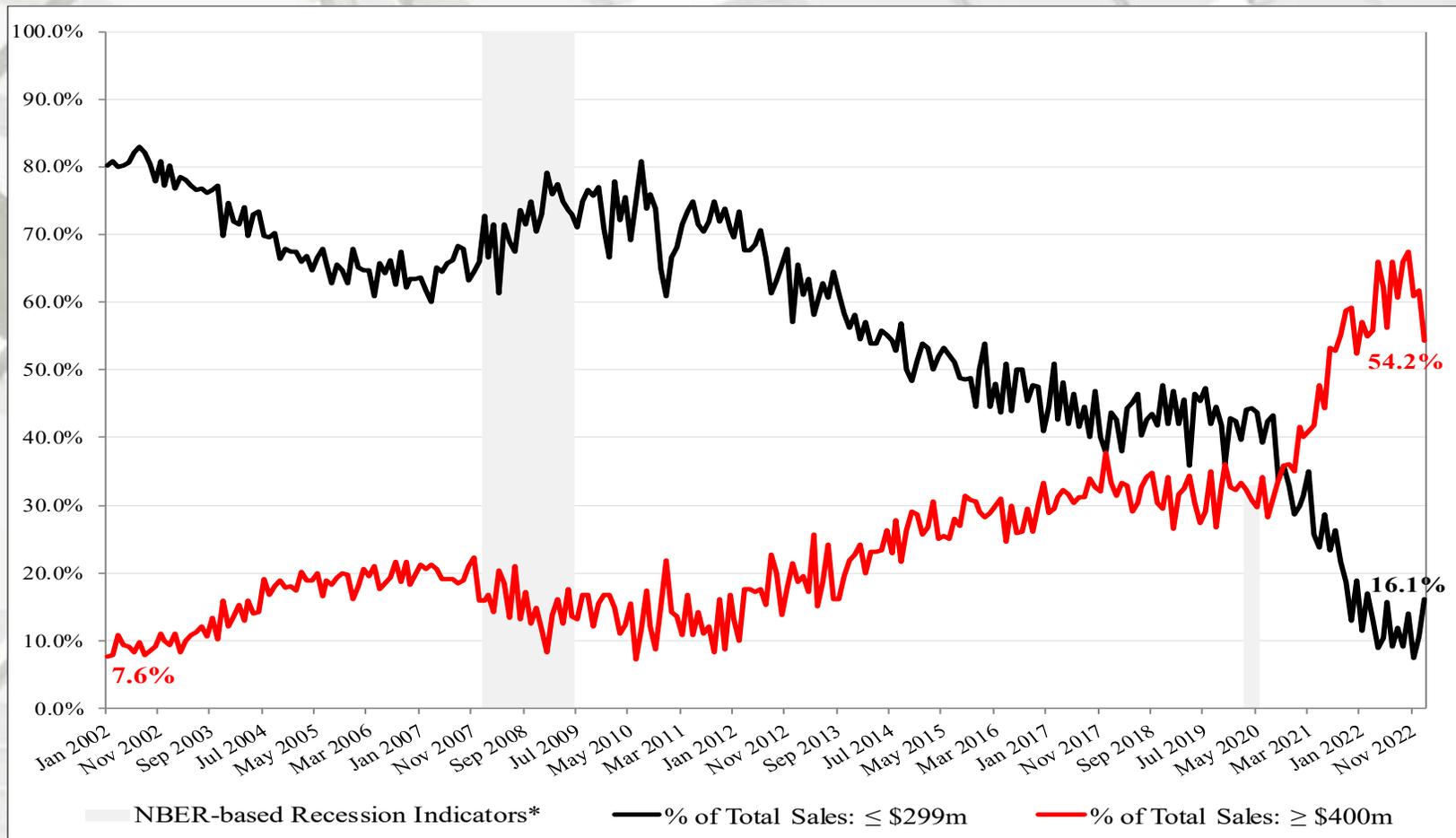
* Percentage of total new sales.

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

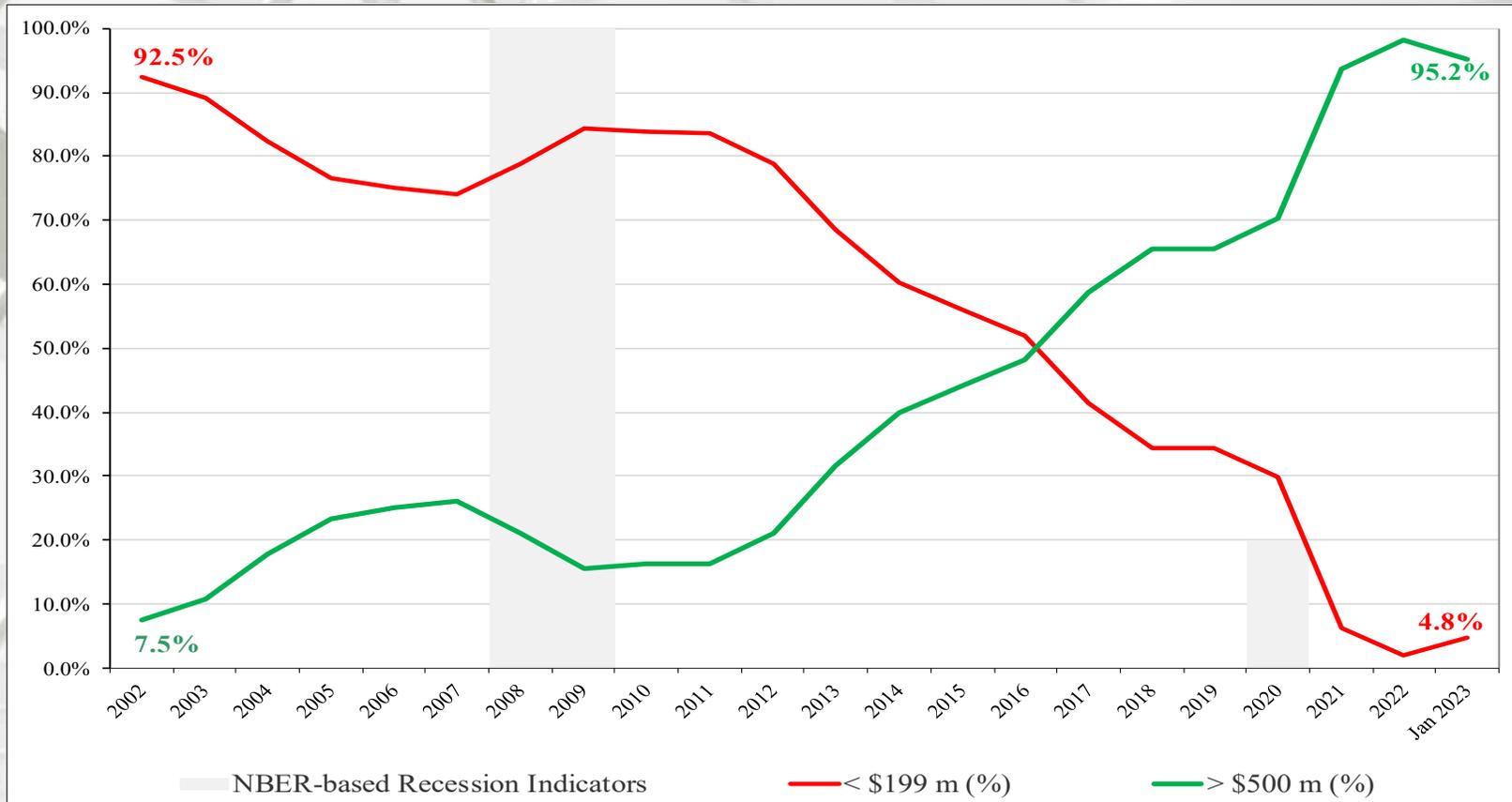


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

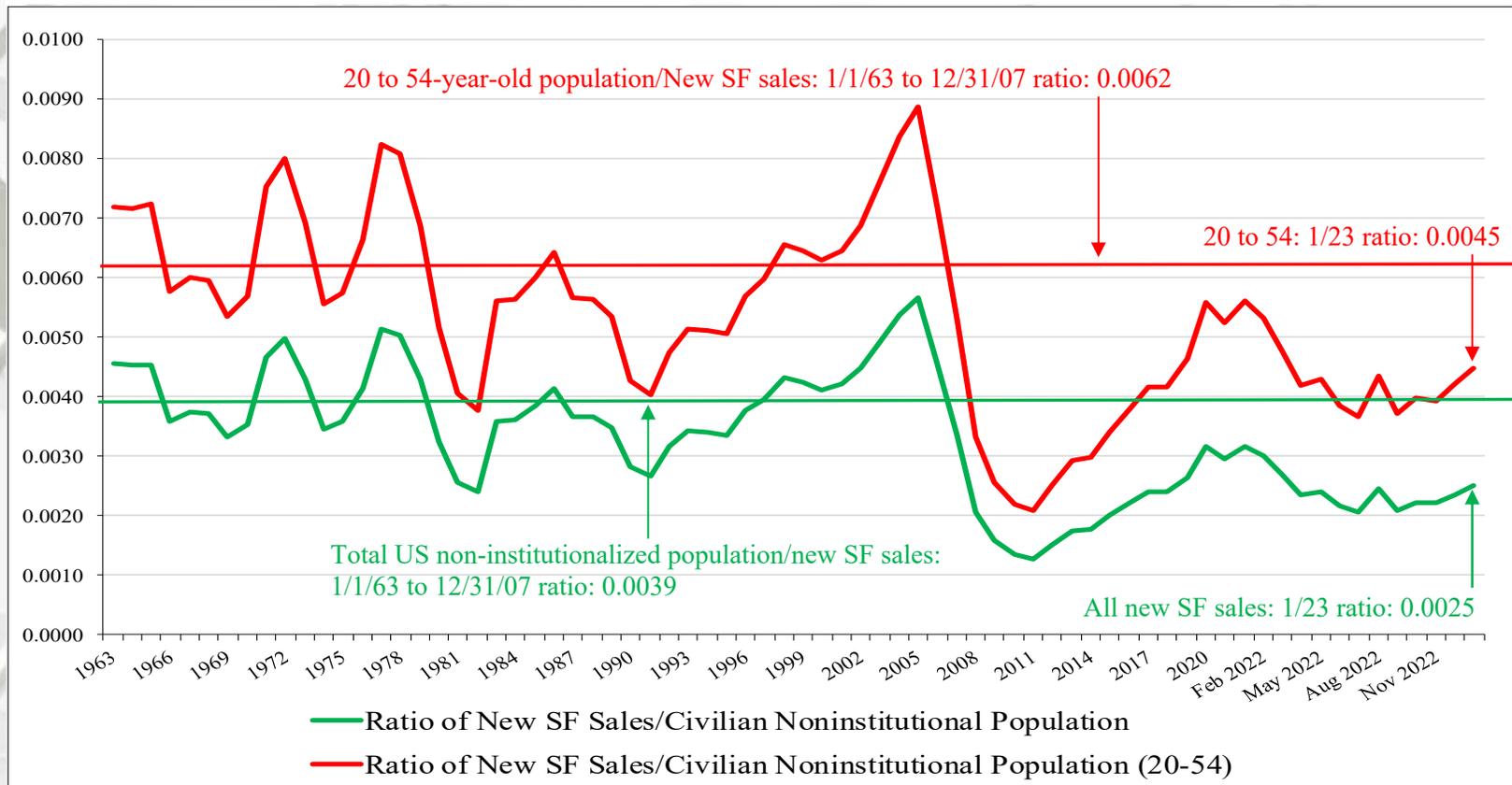


New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to January 2022

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

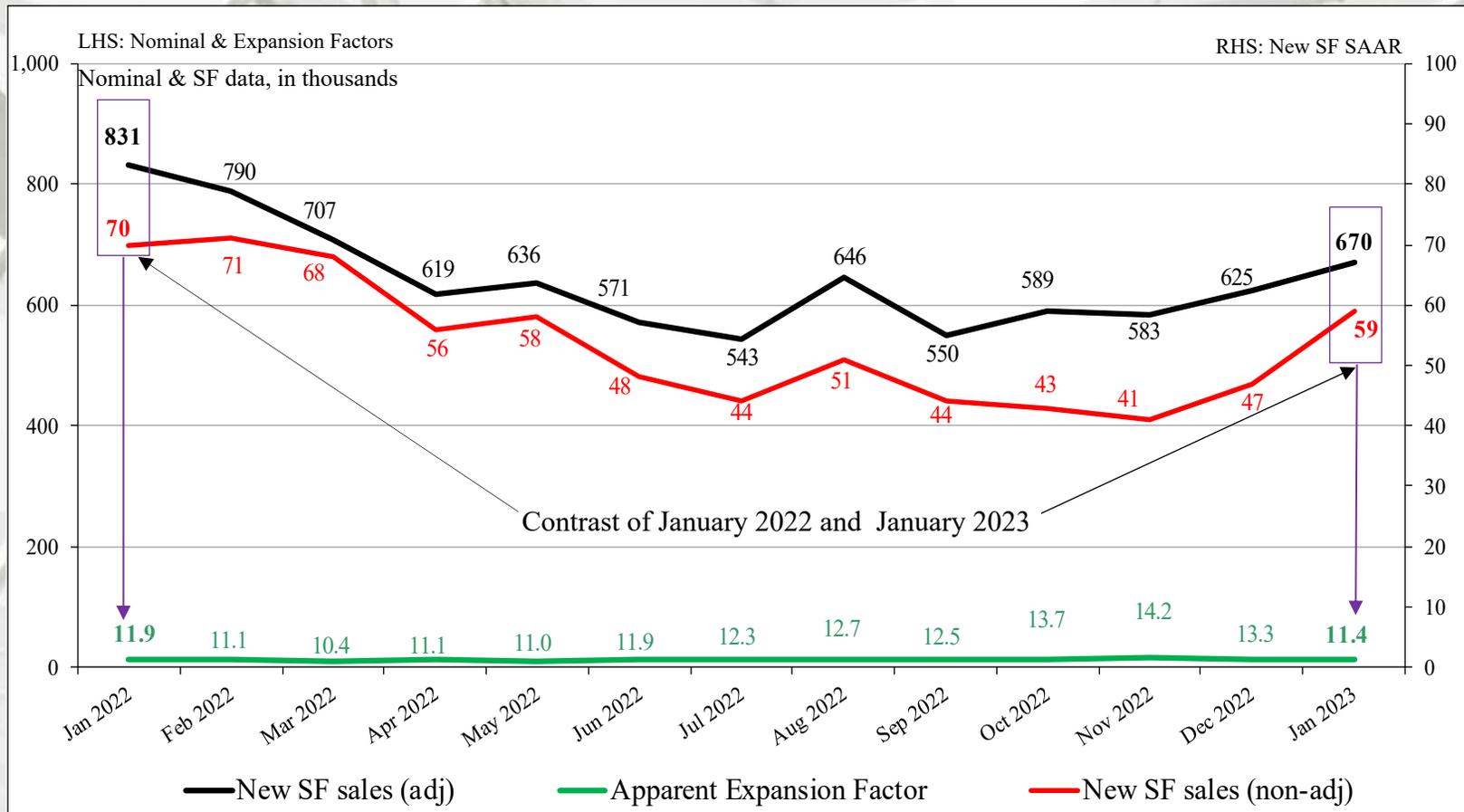


New SF sales adjusted for the US population

From January 1963 to January 2007, the long-term ratio of new house sales to the total US non-institutionalized population was 0.0039; in January 2023 it was 0.0025 – an increase from December (0.0024). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in January 2023 it was 0.0045 – an improvement from November (0.0042). 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

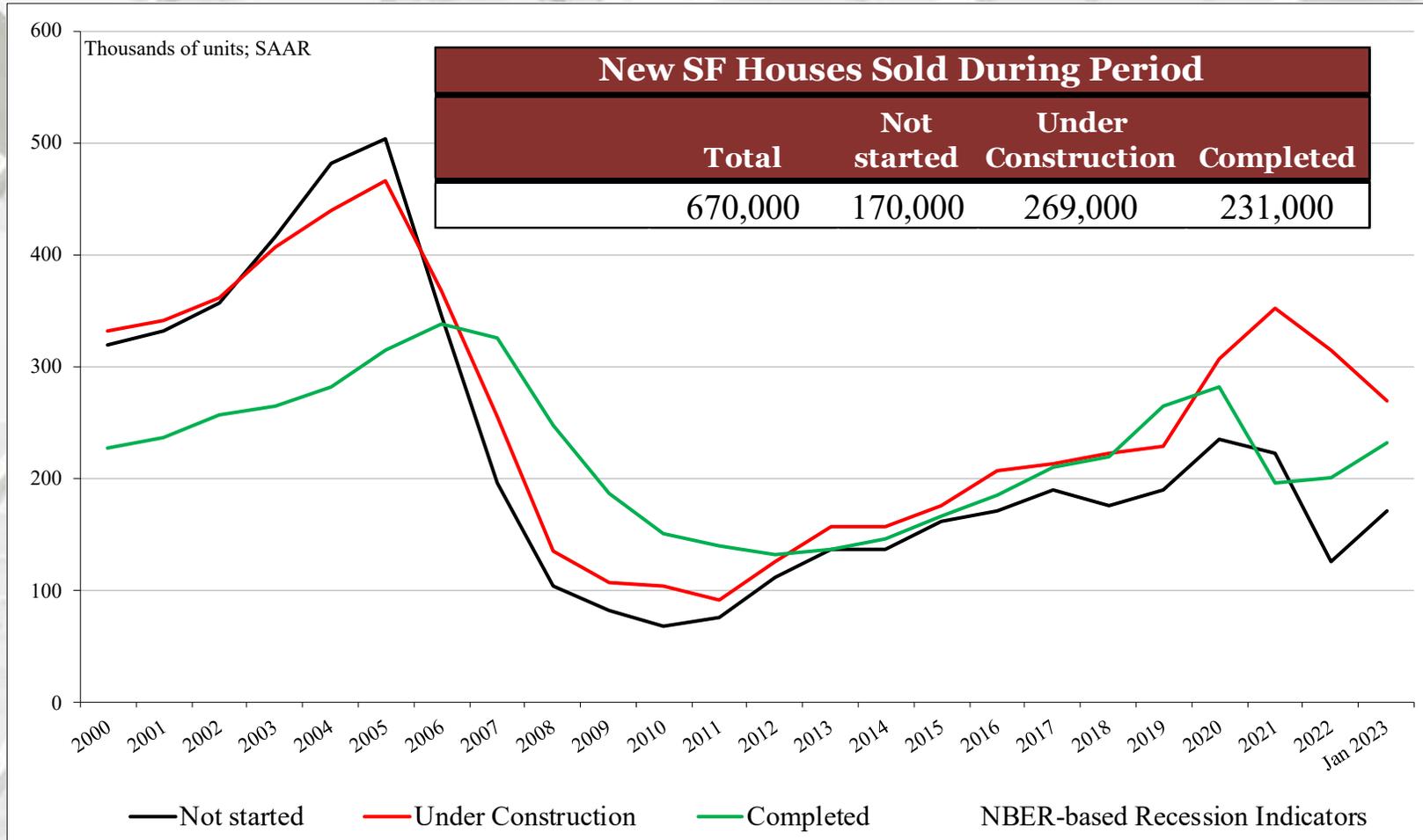
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
January	670,000	170,000	269,000	231,000
December	456,000	34,000	45,000	269,000
2022	389,000	28,000	41,000	230,000
M/M change	46.9%	400.0%	497.8%	-14.1%
Y/Y change	72.2%	507.1%	556.1%	0.4%
Total percentage		25.4%	40.1%	34.5%

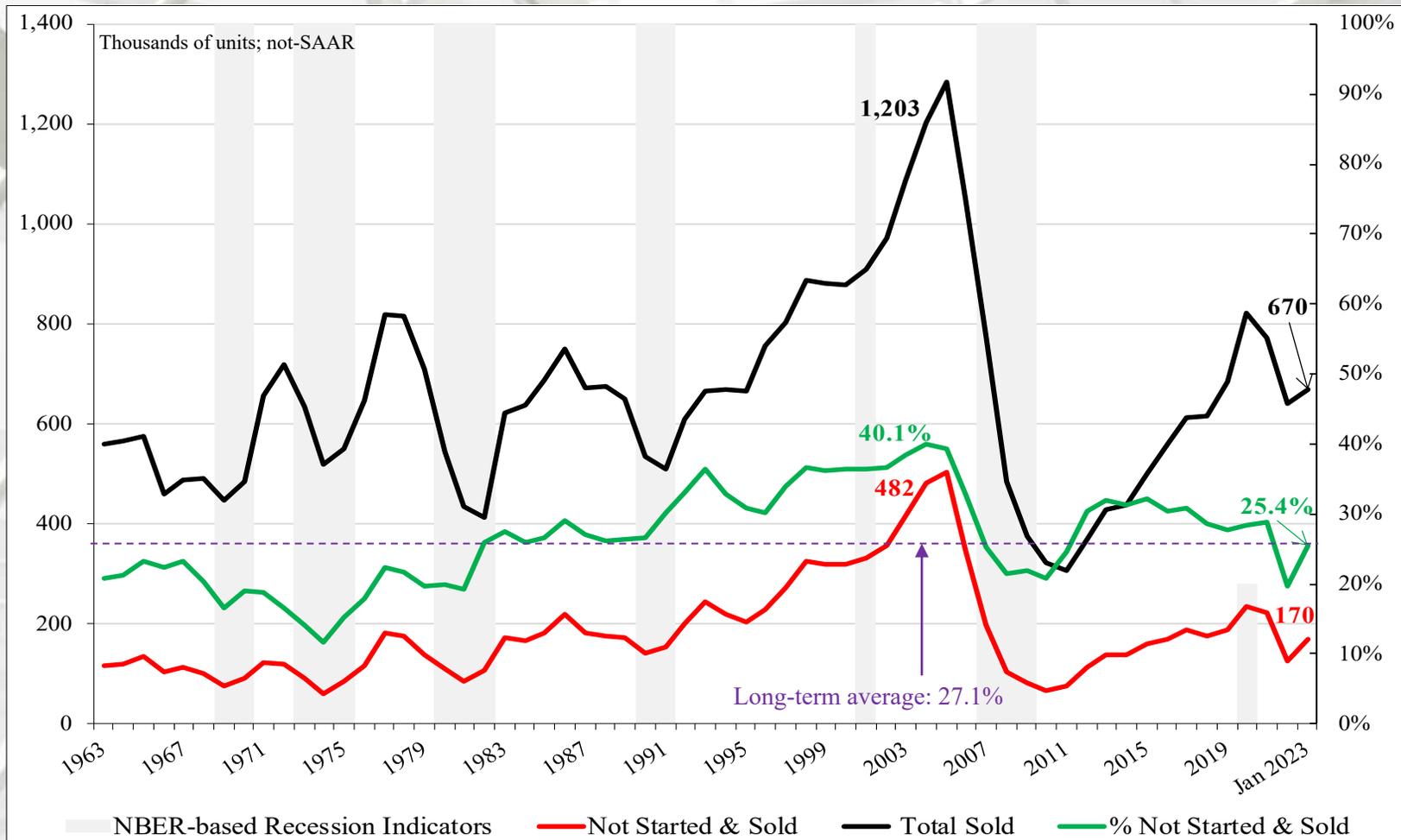
All data is SAAR

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 January (670 m), 25.4% (170 m) had not been started. 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 at End of Period

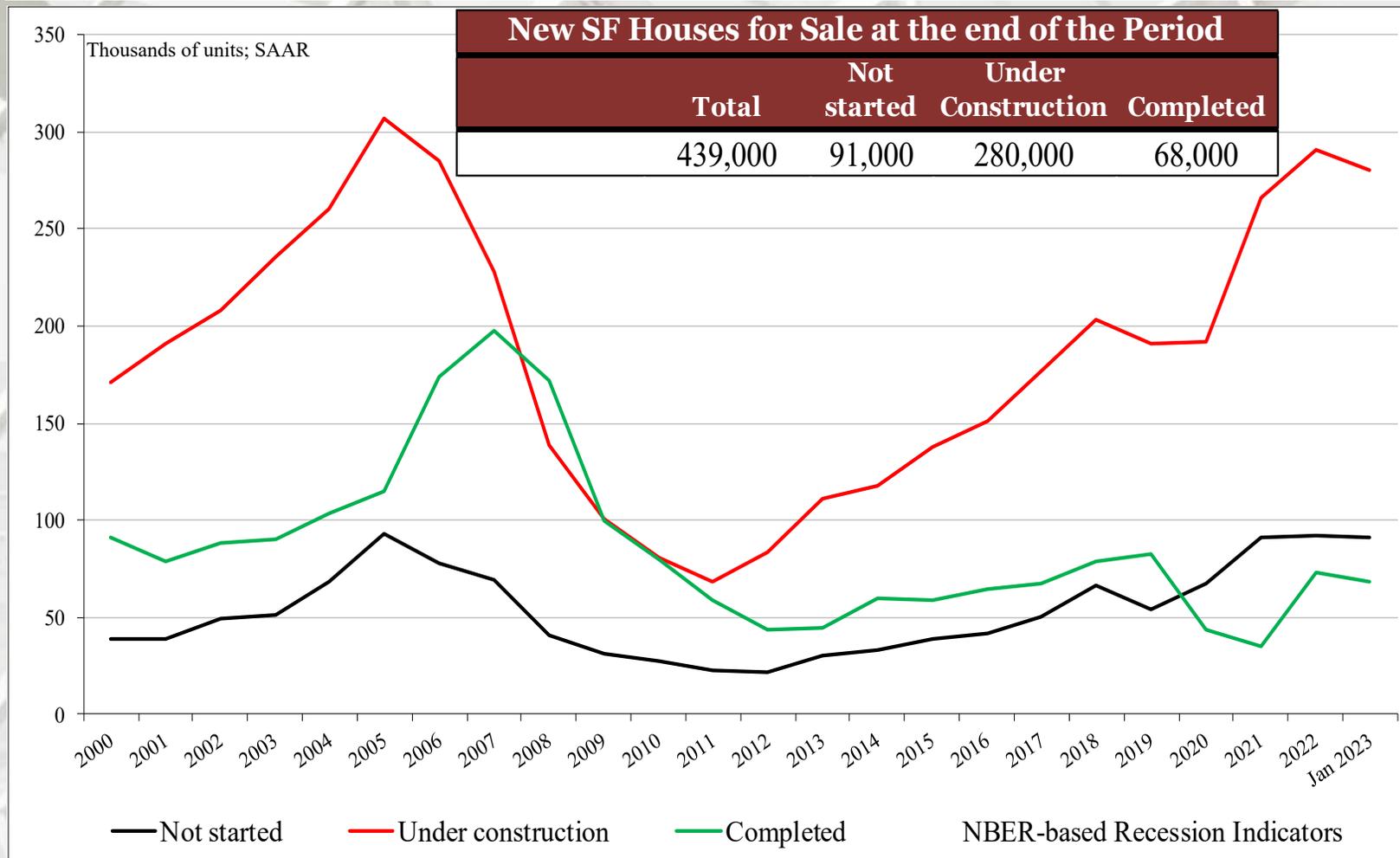
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
January	439,000	91,000	280,000	68,000
December	389,000	91,000	265,000	33,000
2022	394,000	394,000	394,000	394,000
M/M change	12.9%	0.0%	5.7%	106.1%
Y/Y change	11.4%	-4.2%	4.9%	112.5%
Total percentage		20.7%	63.8%	15.5%

Not SAAR

Of houses listed for sale (461 m) in January, 13.8% (64 m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 107 m (23.2%) 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).

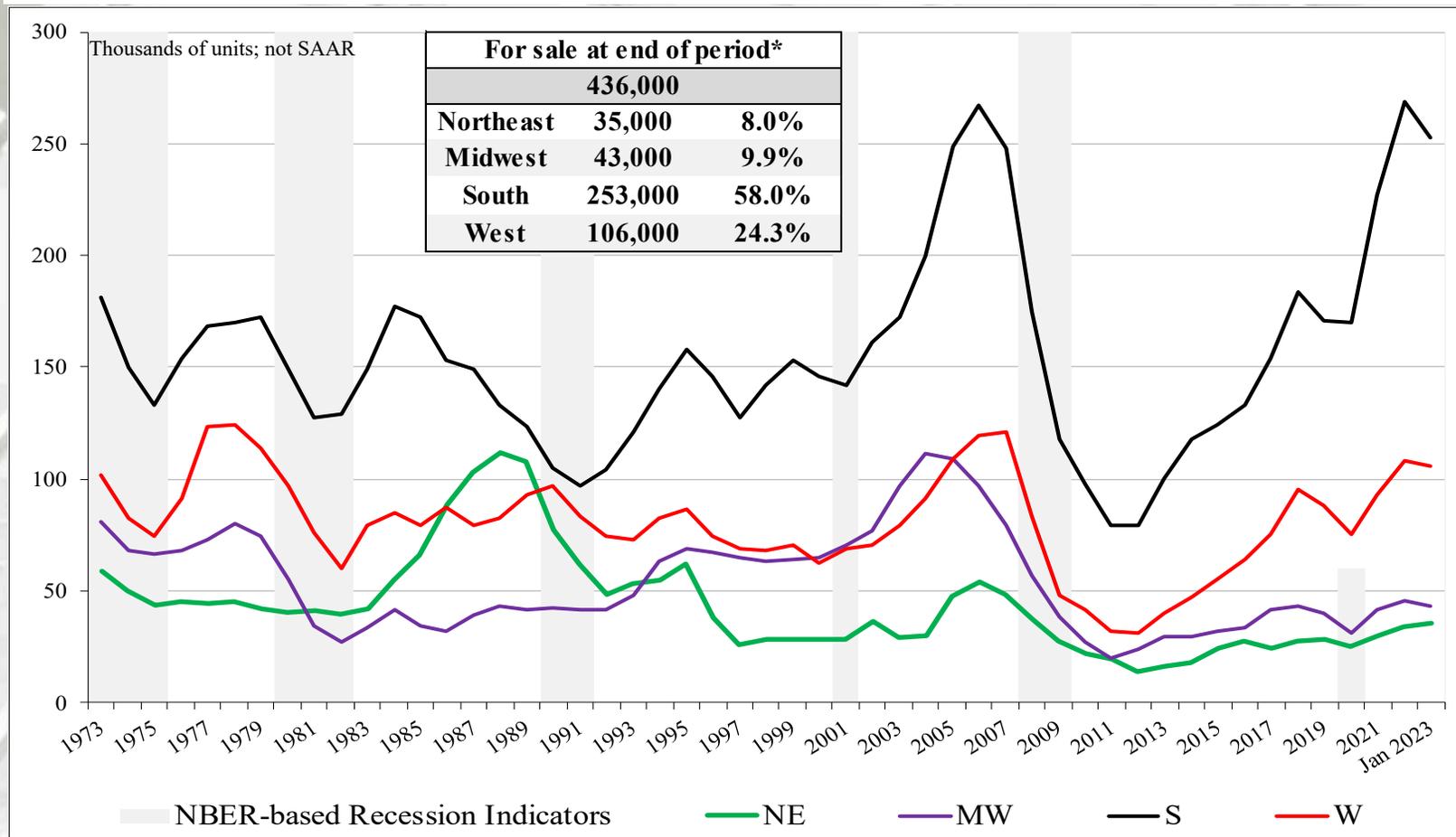
New SF House Sales

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

	Total	NE	MW	S	W
January	436,000	35,000	43,000	253,000	106,000
December	456,000	34,000	45,000	269,000	108,000
2022	389,000	28,000	41,000	230,000	90,000
M/M change	-4.4%	2.9%	-4.4%	-5.9%	-1.9%
Y/Y change	12.1%	25.0%	4.9%	10.0%	17.8%

* Not SAAR

New SF Houses for Sale at End of Period by Region

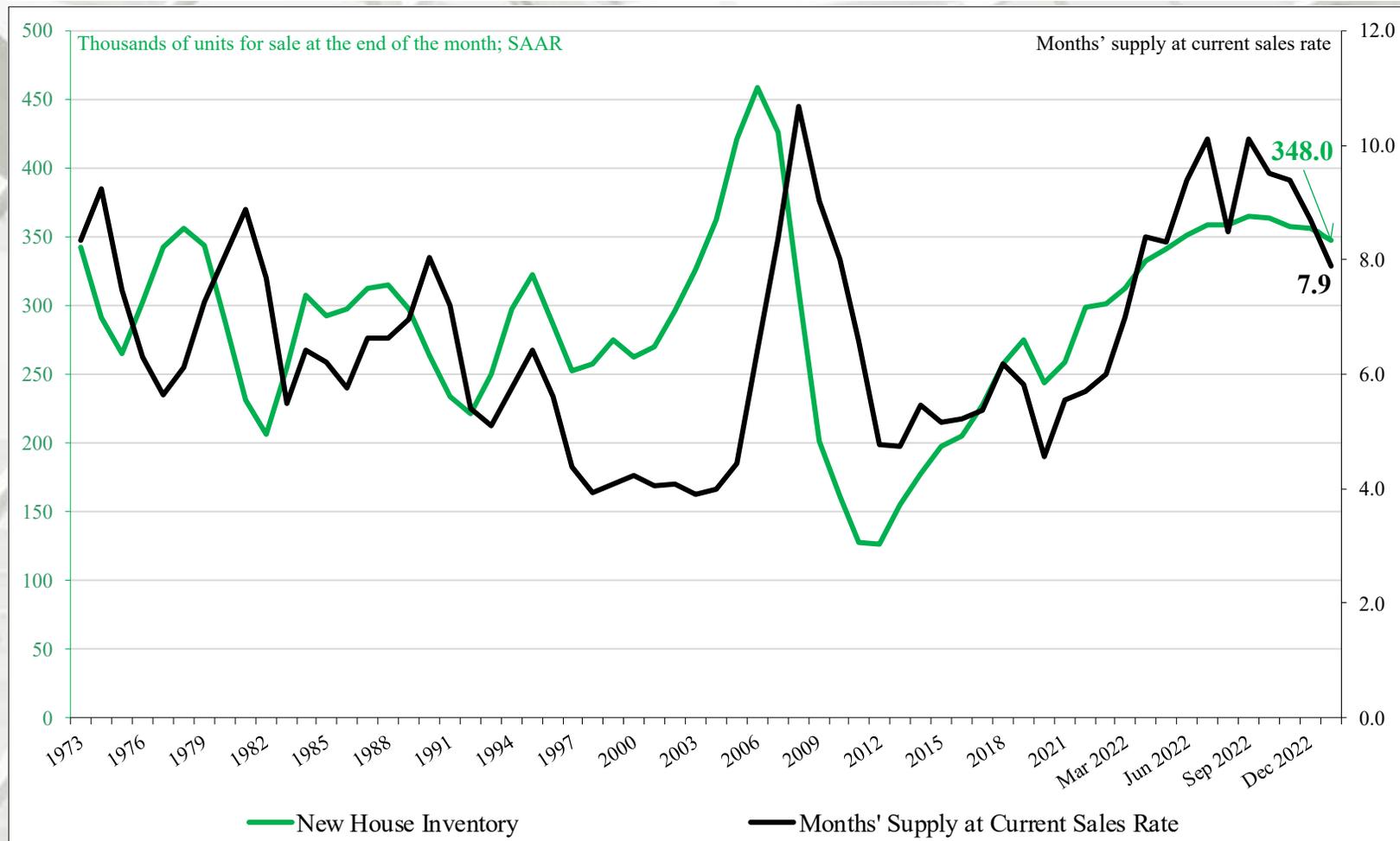


NE = Northeast; MW = Midwest; S = South; W = West

* 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).

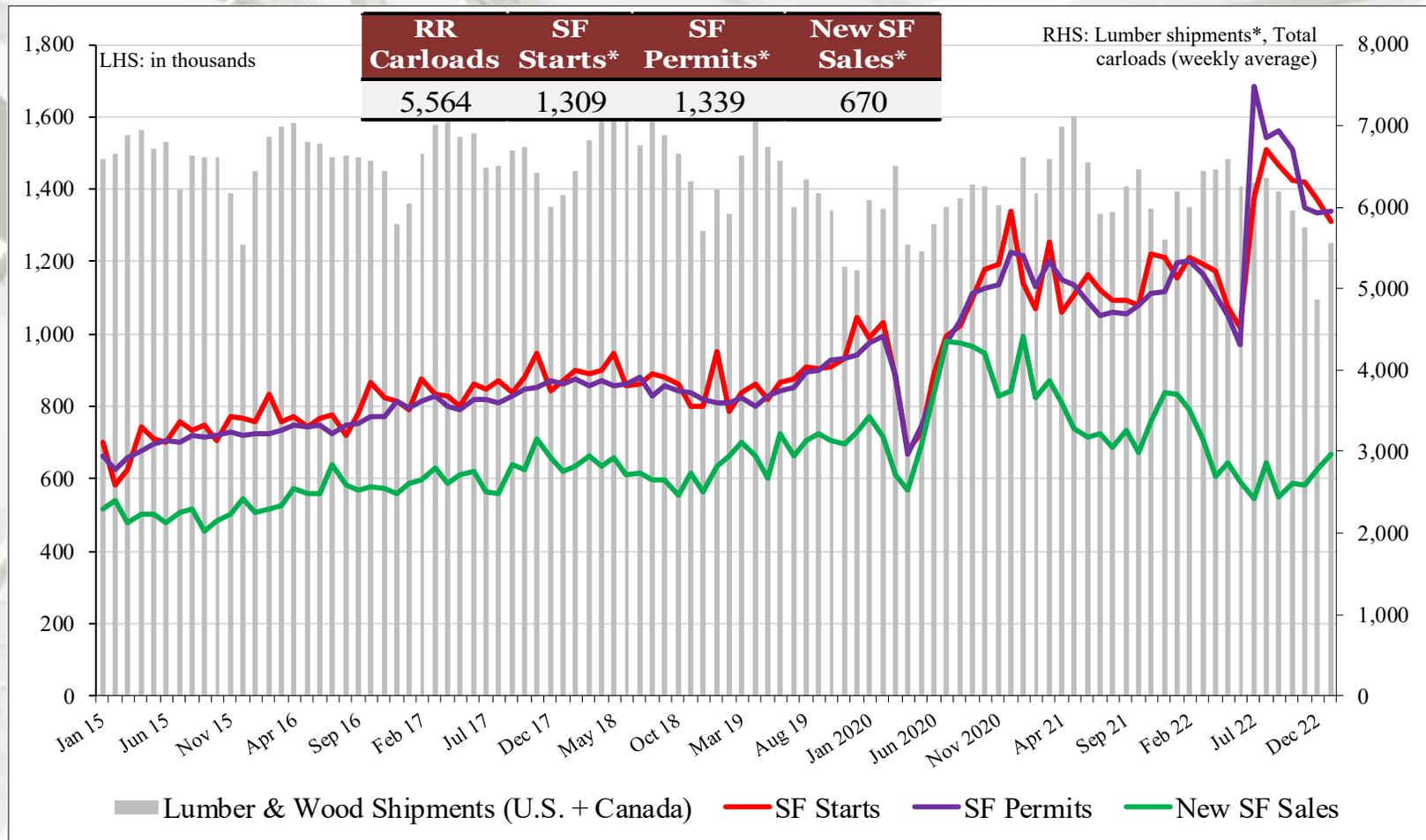
Months' Supply and New House Inventory^a



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

The months' supply of new houses for sale was 8.9 at the end of January 2022 (SAAR).

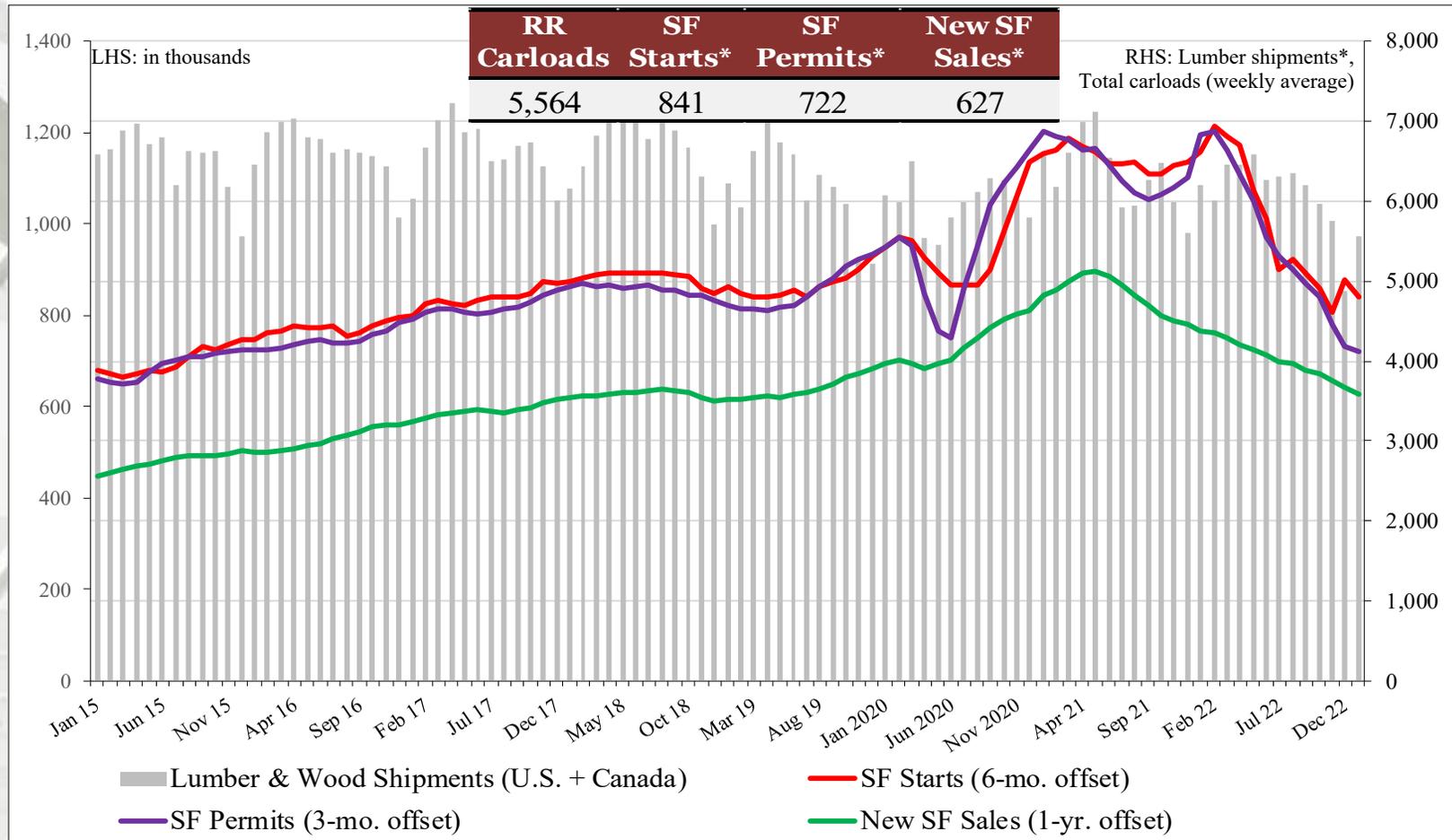
U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



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

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.

January 2022 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
January	\$847,353	\$374,431	\$120,522	\$352,400
December	\$852,135	\$380,734	\$120,050	\$351,351
2022	\$881,907	\$458,644	\$99,917	\$323,346
M/M change	-0.6%	-1.7%	0.4%	0.3%
Y/Y change	-3.9%	-18.4%	20.6%	9.0%

* 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\$.

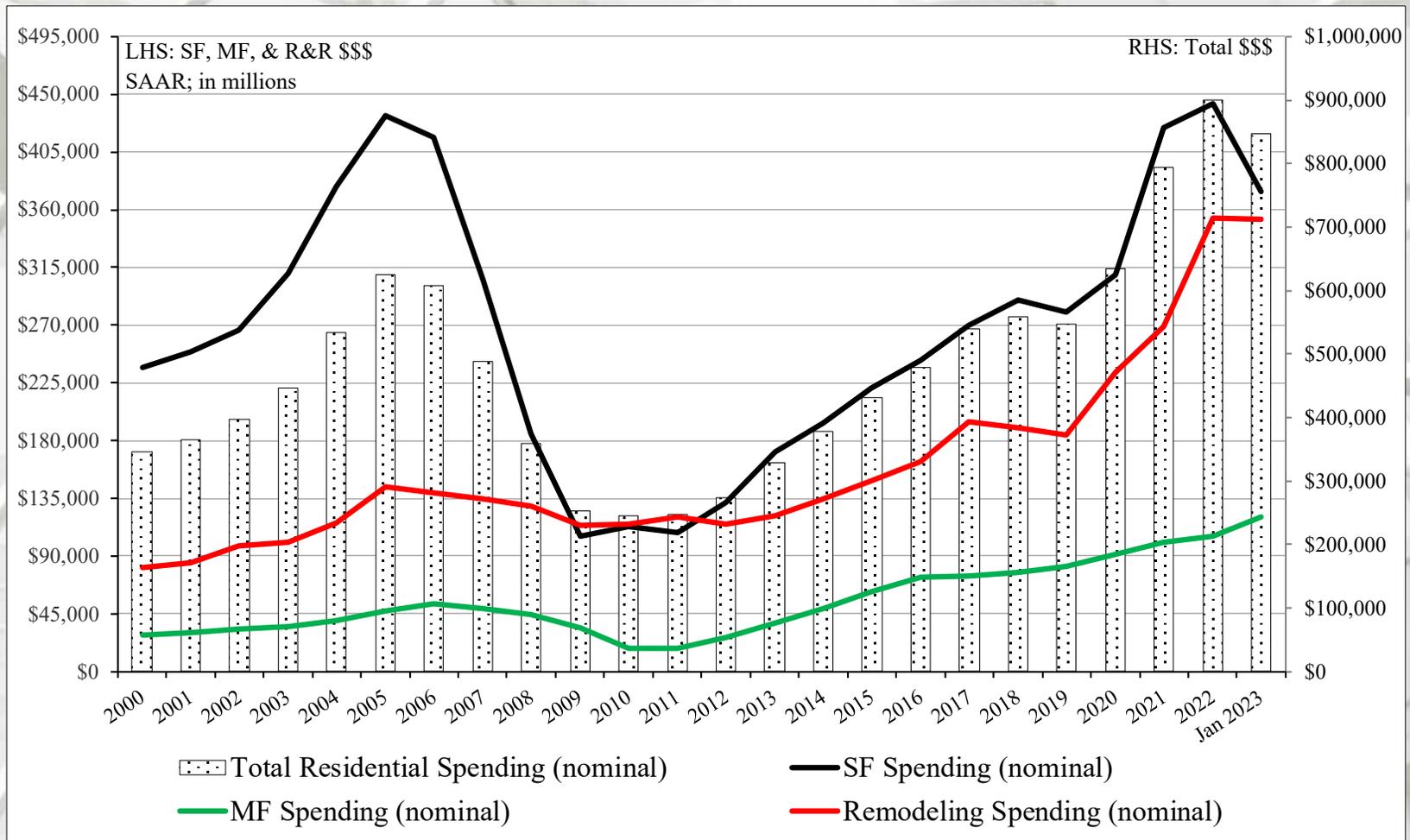
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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.

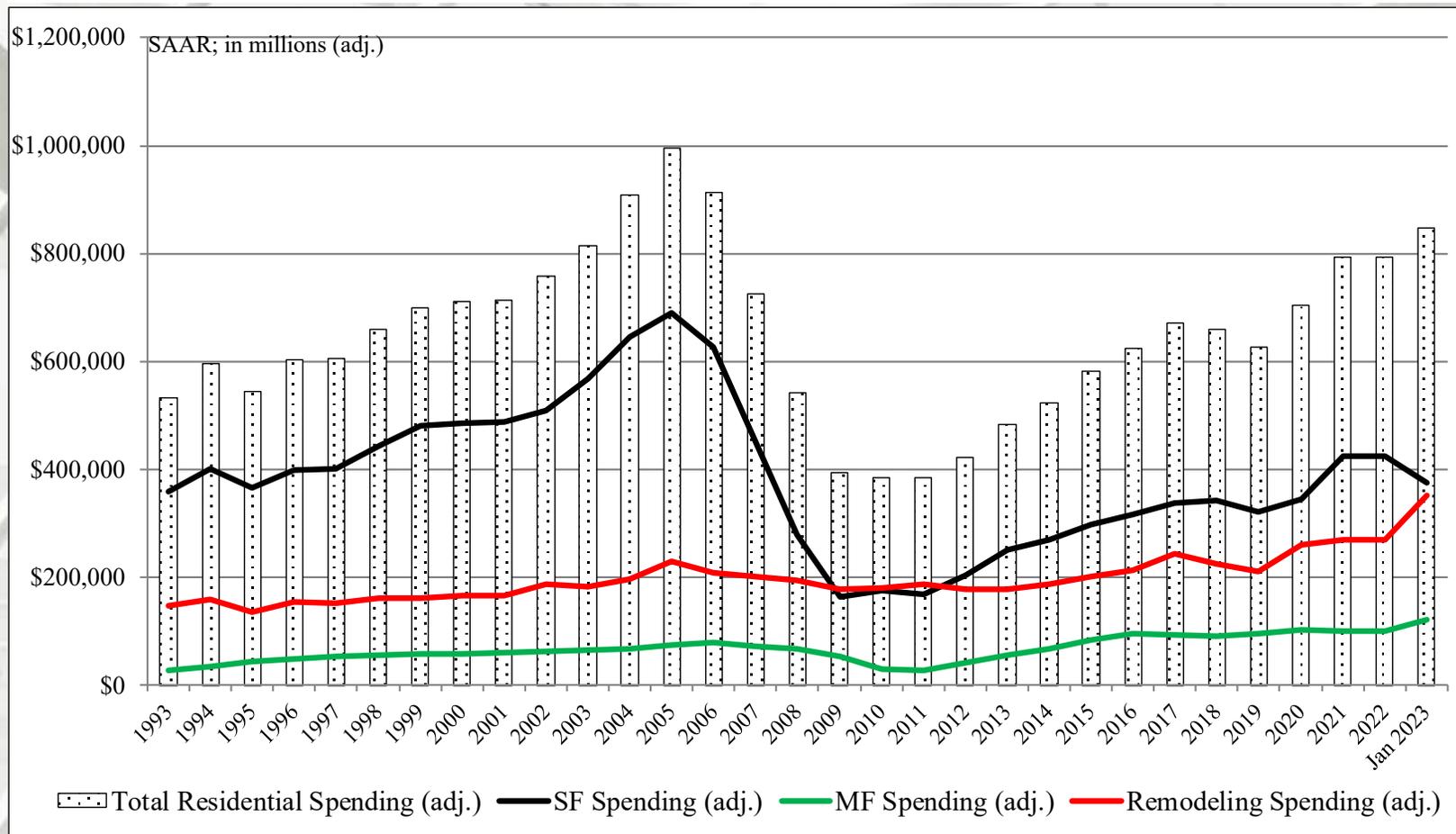
Total Construction Spending (nominal): 2000 – January 2023



Reported in nominal US\$.

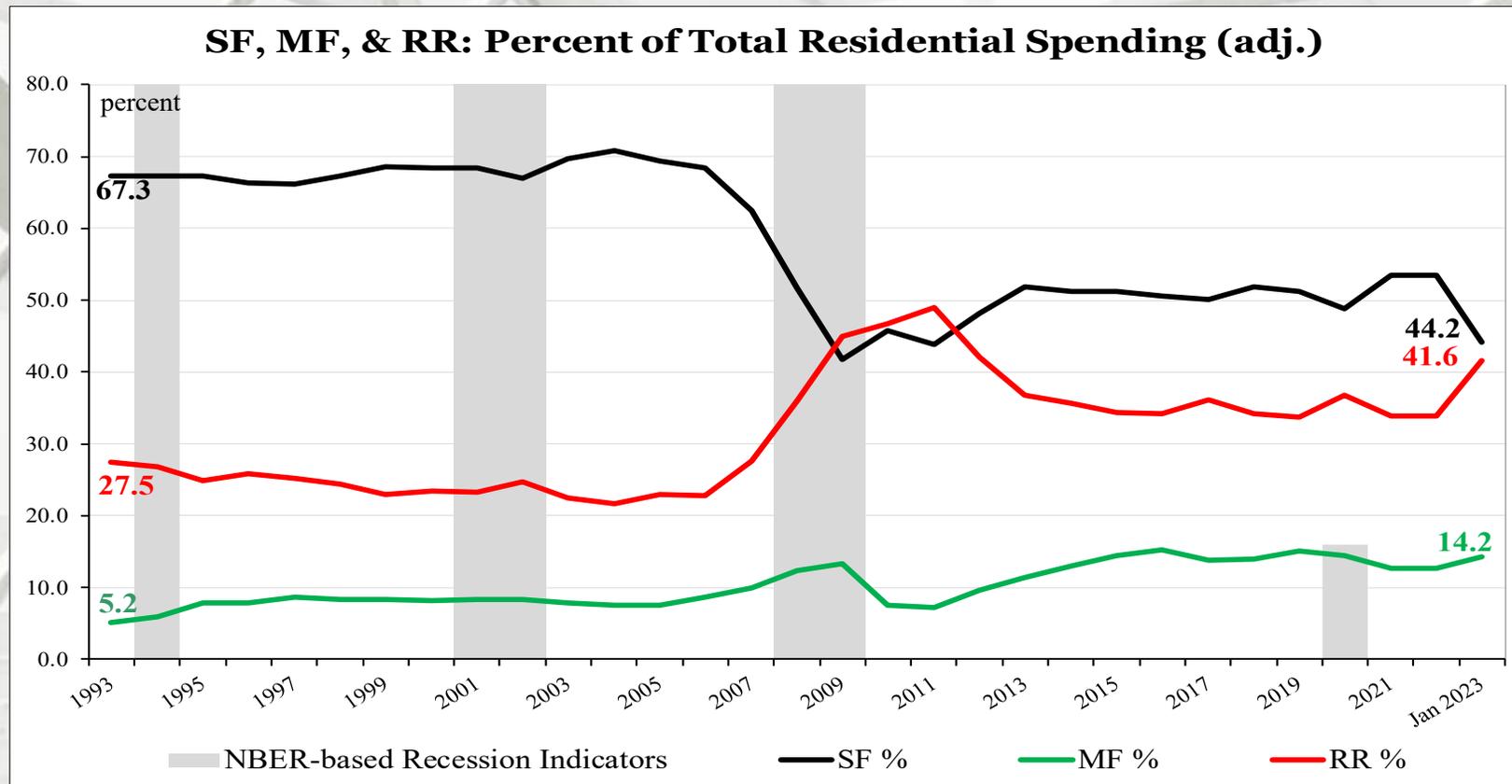
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – January 2023



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

Construction Spending Shares: 1993 – January 2023



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

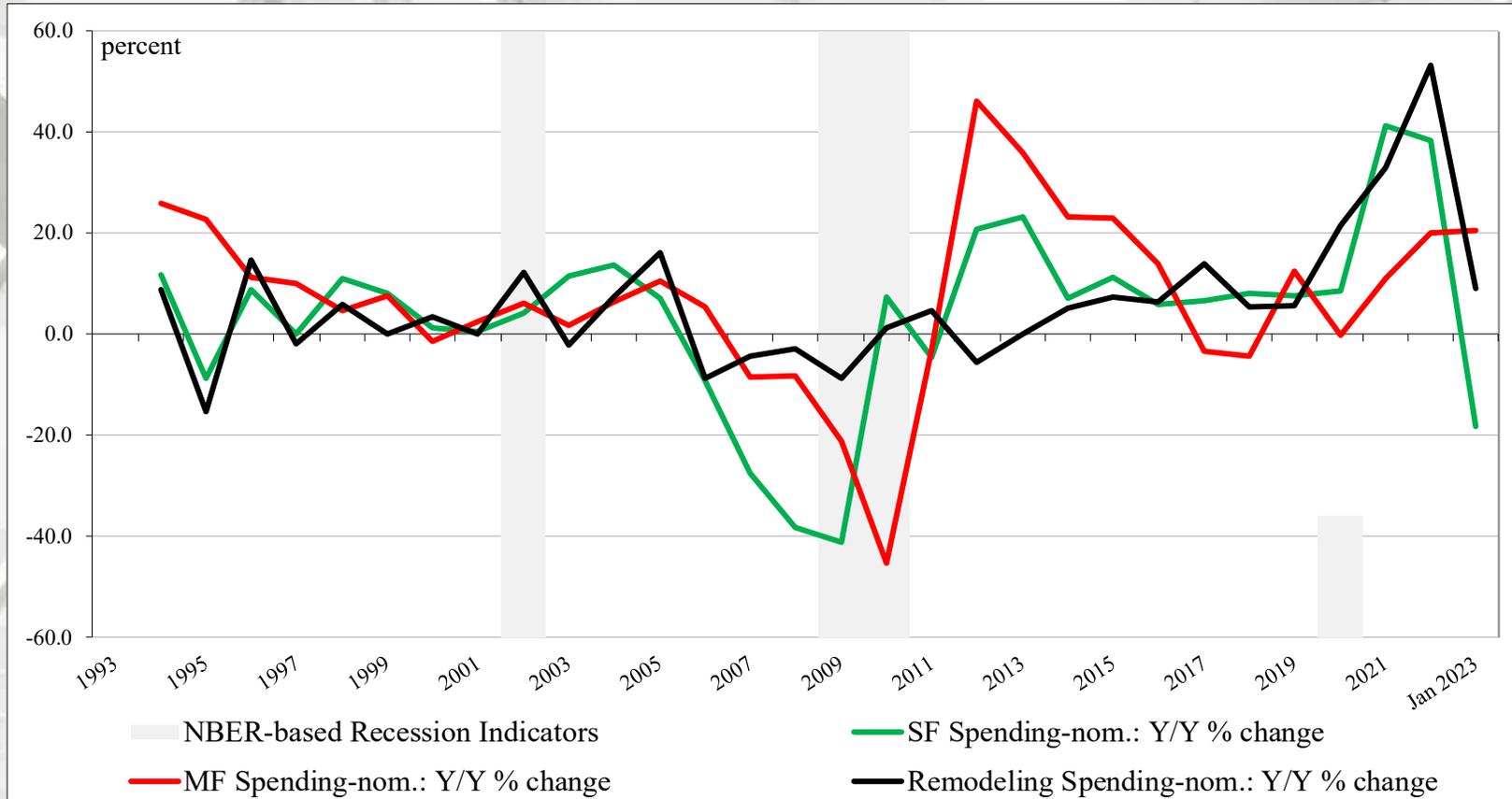
Residential remodeling (RR) spending average: 23.3% (SAAR).

Note: 1993 to 2021 (adjusted for inflation, BEA Table 1.1.9); January 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).

Sources: * <https://fred.stlouisfed.org/series/USREC>, 7/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 3/1/23 and <http://www.bea.gov/iTable/iTable.cfm>; 9/30/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – January 2023



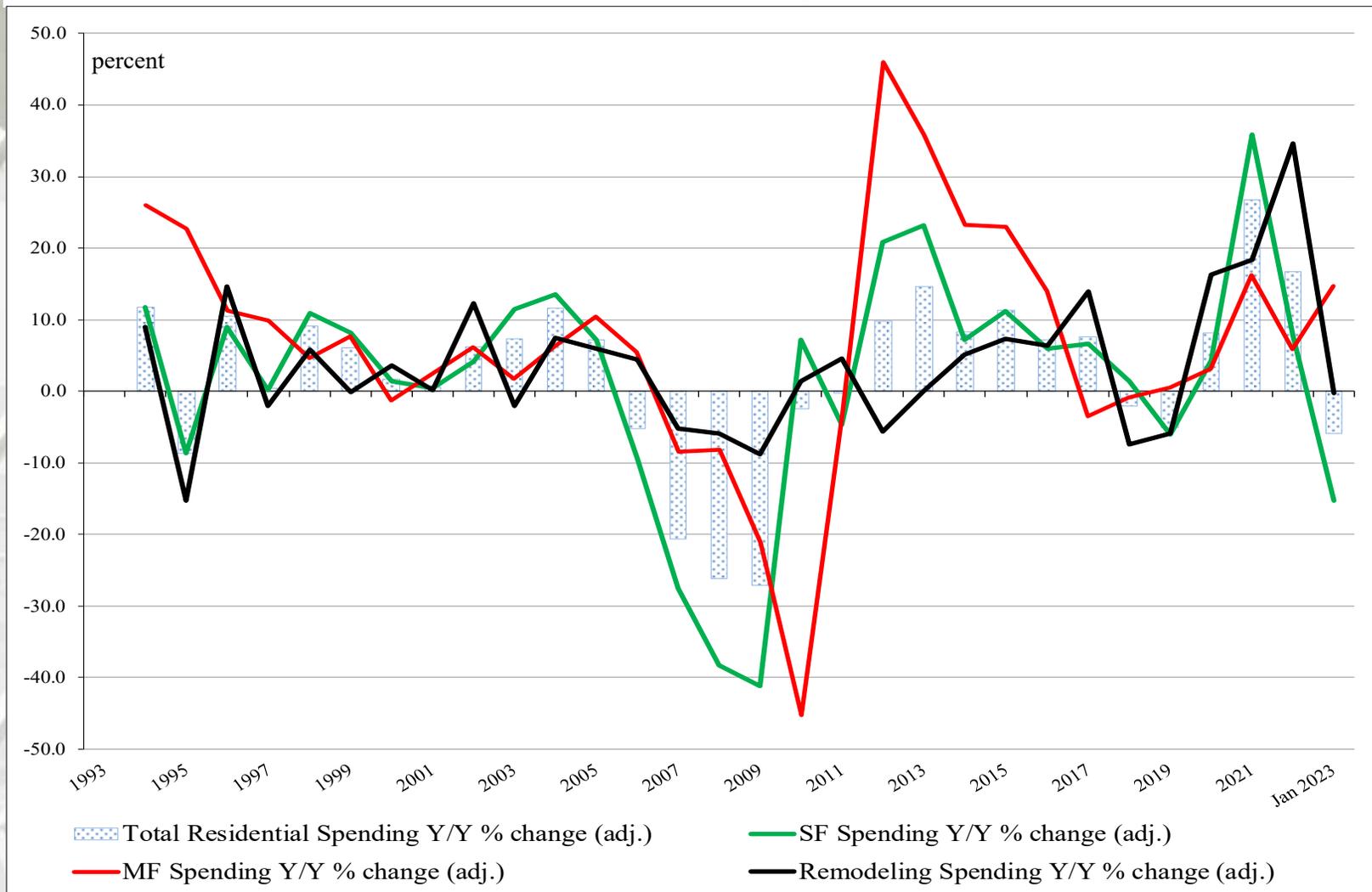
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to January 2021

Presented above is the percentage change of inflation adjusted Y/Y construction spending. MF and RR expenditures were positive on a percentage basis, year-over-year (January 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).

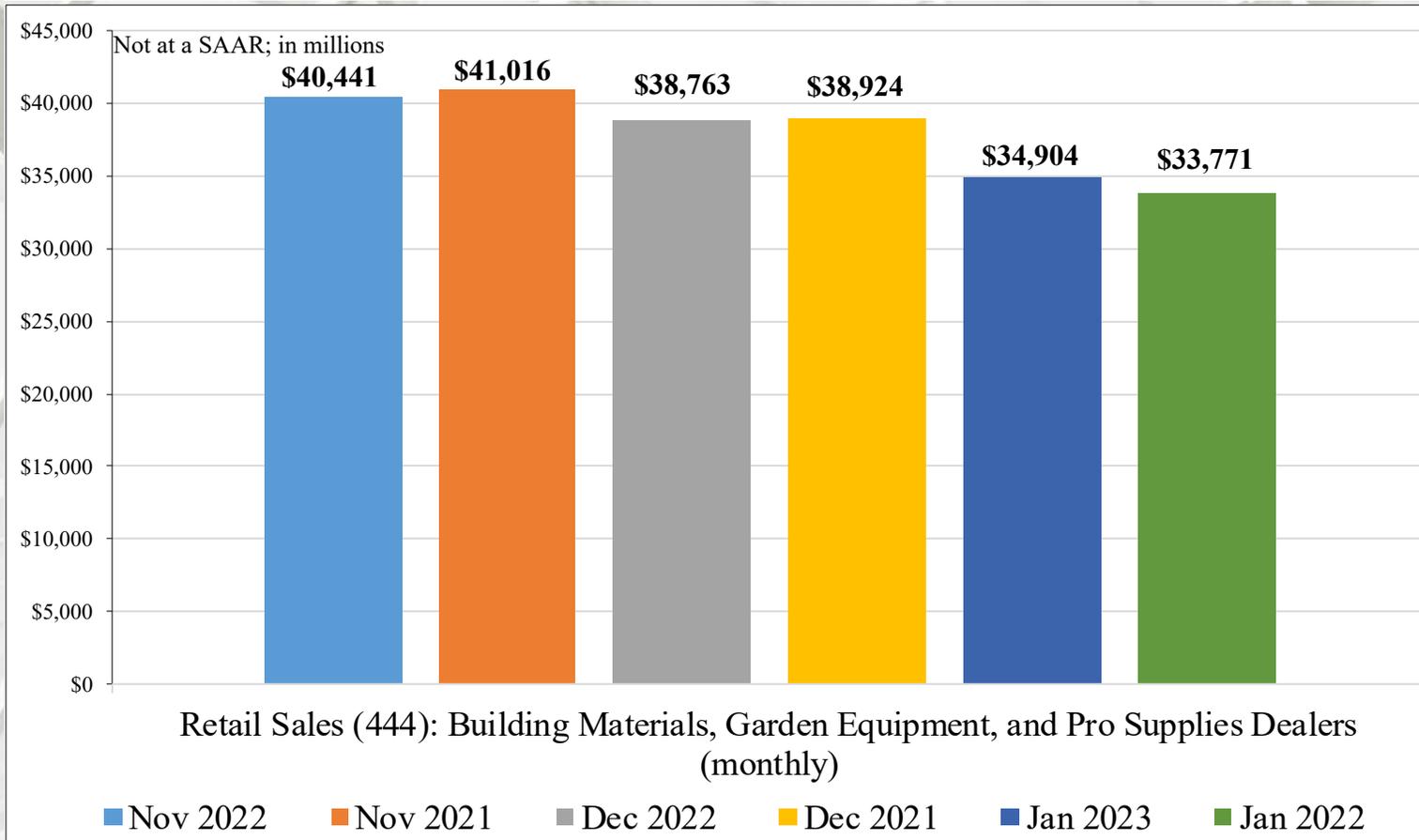
Sources: * <https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 2/1/23 and <http://www.bea.gov/iTable/iTable.cfm>; 9/30/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – January 2023



Remodeling

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



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

NAICS 444 sales decreased 10.0% in January 2023 from January 2022 and increased 3.4% Y/Y (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores



Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 5.7% in December 2022 from November 2022 and improved 9.8% in December 2022 from December 2021 (on a non-adjusted basis).

Remodeling

Harvard Joint Center for Housing Studies

Leading Indicator of Remodeling Activity (LIRA)

“After several years of double-digit gains, expenditures for improvements and repairs to the owner-occupied housing stock are expected to grow only modestly in 2023, according to our [Leading Indicator of Remodeling Activity \(LIRA\)](#). The LIRA projects a steep deceleration in annual gains of home renovation and maintenance spending from 16.3 percent at the close of 2022 to just 2.6 percent by year-end 2023.

Slowdowns in existing home sales, house price appreciation, and mortgage refinancing activity coupled with growing concerns for a broader economic recession will cool home remodeling activity this year. Homeowners are likely to pull back on high-end discretionary projects and instead focus their spending on necessary replacements and smaller projects in the immediate future.

Yet, the release of new benchmark data from the American Housing Survey recalibrates the overall market size. The massive pandemic-induced changes in housing and lifestyle decisions fueled remodeling and repair spending in 2020 and 2021, growing 23.8 percent over these two years compared with the 12.5 percent originally estimated. While the pace of expenditures is expected to slow substantially this year, we’ve raised our projection for the remodeling market size in 2023 by about \$45 billion, or 10.2 percent, to \$485 billion.”

Remodeling

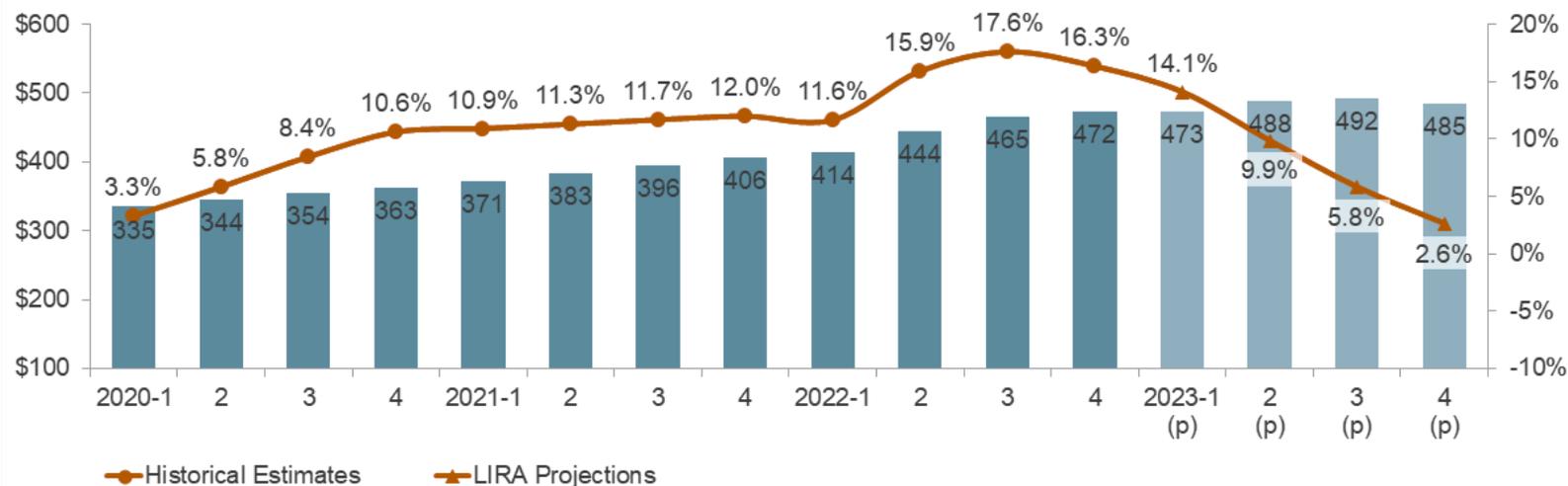
Harvard Joint Center for Housing Studies

Leading Indicator of Remodeling Activity (LIRA)

Leading Indicator of Remodeling Activity – Fourth Quarter 2022

Homeowner Improvements & Repairs
Four-Quarter Moving Totals
Billions

Four-Quarter Moving
Rate of Change



Notes: Improvements include remodels, replacements, additions, and structural alterations that increase the value of homes. Routine maintenance and repairs preserve the current quality of homes. Historical estimates since 2021 are produced using the LIRA model until American Housing Survey benchmark data become available.

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Joint Center for Housing Studies of Harvard University **JCHS**

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
January	4,000,000	\$359,000	2.9
December	4,030,000	\$366,500	2.9
2022	6,340,000	\$354,300	1.6
M/M change	-0.7%	-2.0%	0.0%
Y/Y change	-36.9%	1.3%	81.3%

All sales data: SAAR

Existing House Sales

	NE	MW	S	W
January	500,000	960,000	1,820,000	720,000
December	520,000	1,010,000	1,800,000	700,000
2022	780,000	1,440,000	2,870,000	1,250,000
M/M change	-3.8%	-5.0%	1.1%	2.9%
Y/Y change	-35.9%	-33.3%	-36.6%	-42.4%

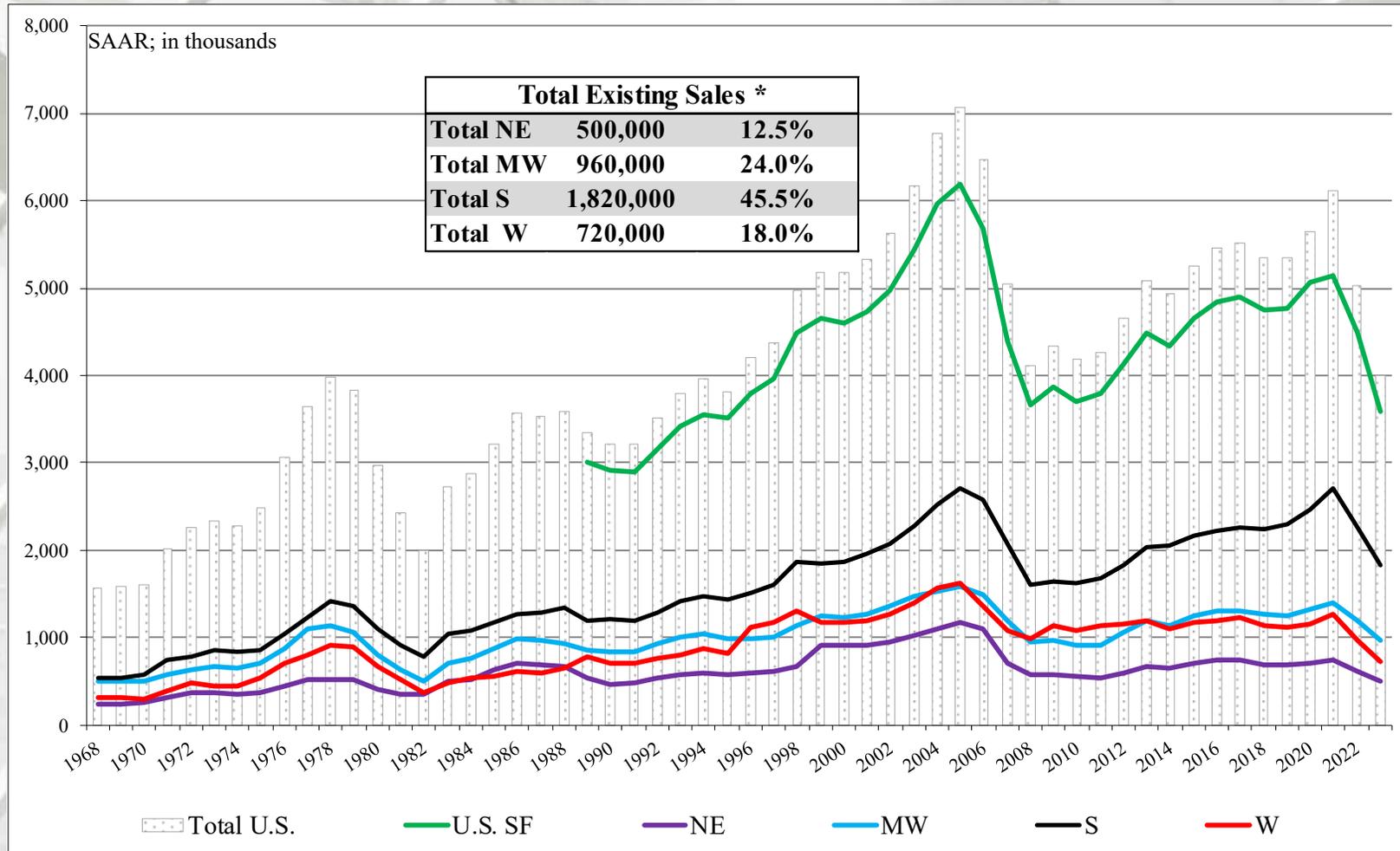
	Existing SF Sales	SF Median Price
January	3,590,000	\$0
December	3,620,000	\$372,700
2022	5,620,000	\$360,700
M/M change	-0.8%	-2.0%
Y/Y change	-36.1%	-100.0%

All sales data: SAAR.

Source: <https://fred.stlouisfed.org/series/EXHOSLUSM495S>; 2/21/23

Return TOC

Existing House Sales



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

* Percentage of total existing sales.

U.S. Housing Prices

Federal Housing Finance Agency

U.S. House Price Index

U.S. House Prices Rise 8.4 Percent over the Last Year; Up 0.3 Percent from the Third Quarter

Significant Findings

“U.S. house prices rose **8.4 percent** between the fourth quarters of 2021 and 2022, according to the Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI®). House prices were up **0.3 percent** compared to the third quarter of 2022. FHFA’s seasonally adjusted monthly index for December was down 0.1 percent from November.

For the nine census divisions, seasonally adjusted monthly house price changes from October to November 2022 ranged from **-1.1 percent** in the Pacific division to **+0.5 percent** in the West North Central division. The 12-month changes were all positive, ranging from **+2.4 percent** in the Pacific division to **+12.0 percent** in the South Atlantic division.” – Raffi Williams and Adam Russell, FHFA

“House price appreciation continued to wane in the fourth quarter. House prices grew at a much slower pace in recent quarters amid higher mortgage rates and a decline in mortgage applications. These negative pressures were partially offset by historically low inventory.” – Nataliya Polkovnichenko, Ph.D., Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices

Federal Housing Finance Agency

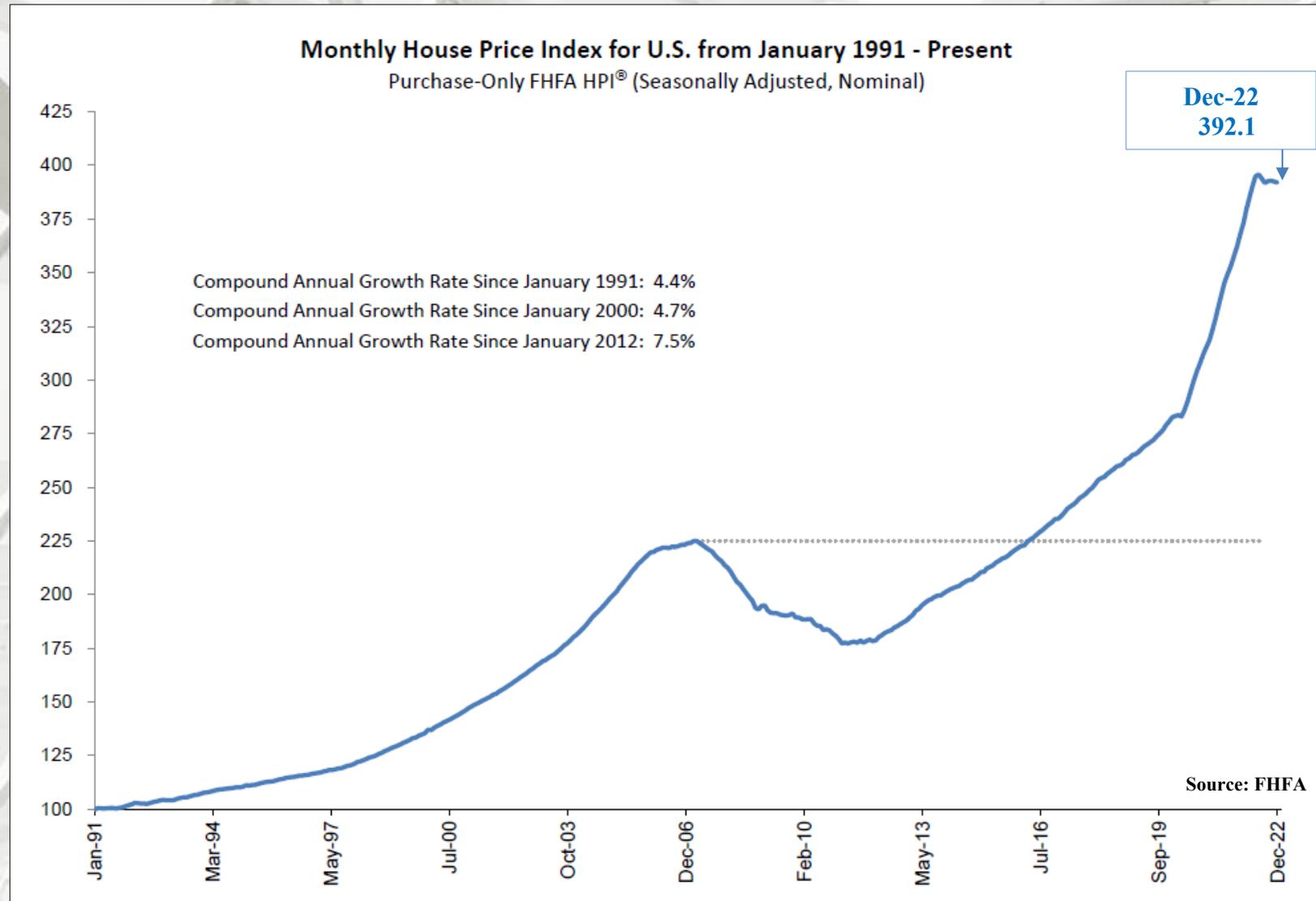
U.S. House Price Index

U.S. House Prices Rise 8.4 Percent over the Last Year; Up 0.3 Percent from the Third Quarter

Significant Findings

- “Nationally, the U.S. housing market has experienced positive annual appreciation each quarter since the start of 2012.
- House prices rose in all 50 states, while prices declined in the District of Columbia between the fourth quarters of 2021 and 2022. The five areas with the highest annual appreciation were 1) Florida, 15.2 percent; 2) North Carolina, 13.4 percent; 3) South Carolina, 12.9 percent; 4) Hawaii, 12.8 percent; and 5) Maine, 12.2 percent. The areas showing the lowest annual appreciation were 1) District of Columbia, -0.8 percent; 2) California, 2.3 percent; 3) Idaho, 3.1 percent; 4) Oregon, 3.6 percent; and 5) Washington, 3.7 percent.
- House prices rose in all but six of the top 100 largest metropolitan areas over the last four quarters. The annual price increase was greatest in North Port-Sarasota-Bradenton, FL at 20.1 percent. The metropolitan area that experienced the greatest price decline was Oakland-Berkeley-Livermore, CA (MSAD) at -4.3 percent.
- Of the nine census divisions, the South Atlantic division recorded the strongest four-quarter appreciation, posting a 12.4 percent increase between the fourth quarters of 2021 and 2022. Appreciation was weakest in the Pacific division, where prices rose by 2.9 percent.
- 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



U.S. Housing Prices

Shiller Index Decline Continued in December

“... Data released today for December 2022 show that home price gains continued to drop across the United States with declining prices reported in the San Francisco and Seattle markets. More than 27 years of history are available for these data series, and can be accessed in full by going to www.spdji.com.

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 5.8% annual gain in December, down from 7.6% in the previous month. The 10-City Composite annual increase came in at 4.4%, down from 6.3% in the previous month. The 20-City Composite posted a 4.6% year-over-year gain, down from 6.8% in the previous month.

Miami, Tampa, and Atlanta reported the highest year-over-year gains among the 20 cities in December. Miami led the way with a 15.9% year-over-year price increase, followed by Tampa in second with a 13.9% increase, and Atlanta in third with a 10.4% increase. All 20 cities reported lower prices in the year ending December 2022 versus the year ending November 2022.

Month-Over-Month

Before seasonal adjustment, the U.S. National Index posted a -0.8% month-over-month decrease in December, while the 10-City and 20-City Composites posted decreases of -0.8% and -0.9%, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month decrease of -0.3%, and the 10-City and 20-City Composites posted decreases of -0.4% and -0.5%, respectively.

In December, all 20 cities reported declines both before and after seasonal adjustments.” – 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

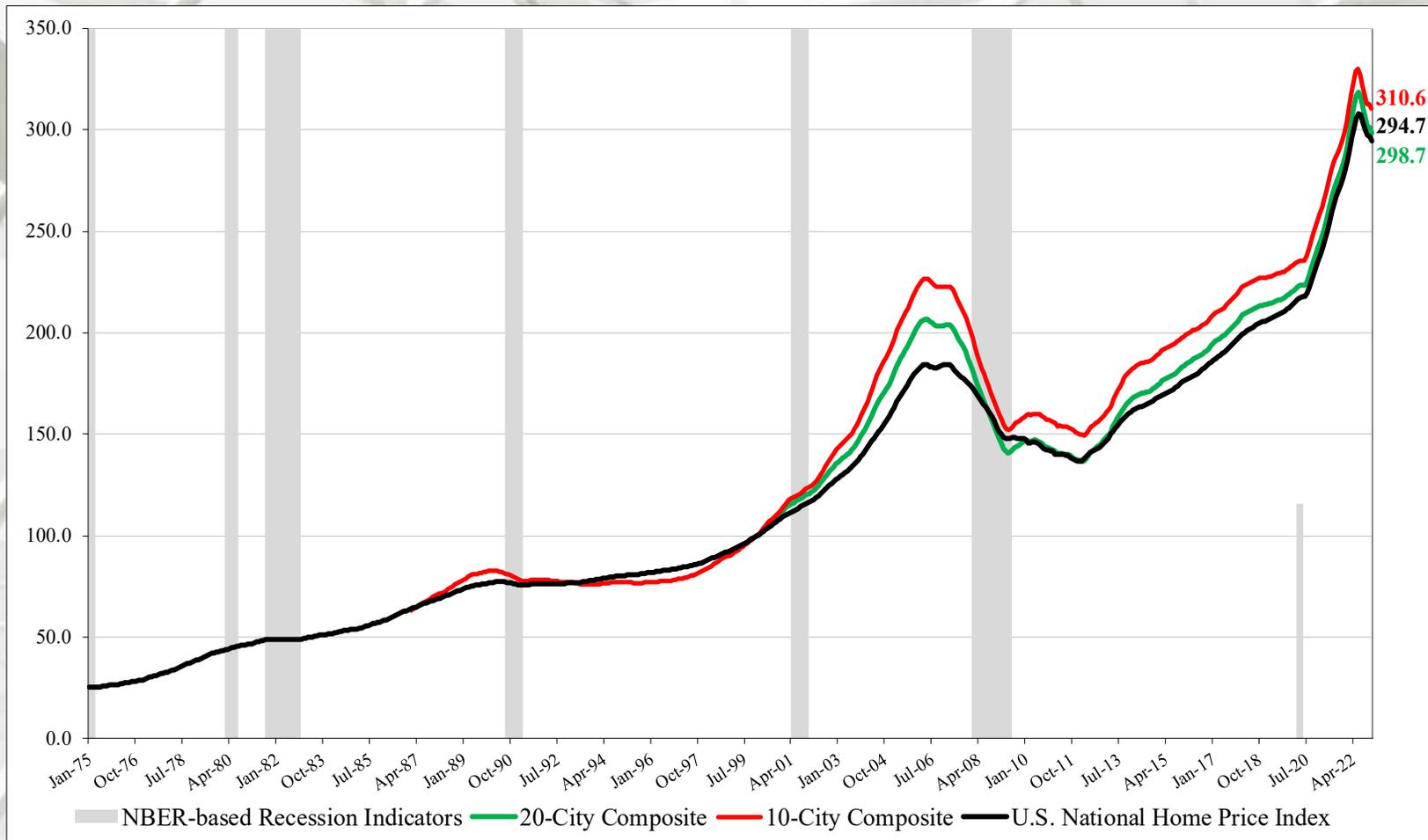
“The cooling in home prices that began in June 2022 continued through year end, as December marked the sixth consecutive month of declines for our National Composite Index. The National Composite declined by -0.8% in December, and now stands 4.4% below its June peak. For 2022 as a whole, the National Composite rose by 5.8%, the 15th best performance in our 35-year history, although obviously well below 2021’s record-setting 18.9% gain. We could record similar observations in the 10- and 20-City Composites.

“Prices fell in all 20 cities in December, with a median decline of -1.1%. Moreover, for all 20 cities, year-over-year gains in December (median 4.4%) were lower than those of November (median 6.4%). We noted last month that home prices in San Francisco had fallen on a year-over-year basis. San Francisco’s decline worsened in December (-4.2% year-over-year); its west coast neighbors Seattle (-1.8%) and Portland (+1.1%) once again form the bottom of the league table.

“As was the case last month, December’s best performers were all in the Southeast, with Miami (+15.9%) in the lead for the fifth straight month. Tampa (+13.9%) and Atlanta (+10.4%) continued in second and third place, with Charlotte (+9.9%) not far behind. Unsurprisingly, the Southeast (+12.5%) and South (+11.6%) were the strongest regions, and the West (+1.2%) continuing as the weakest.

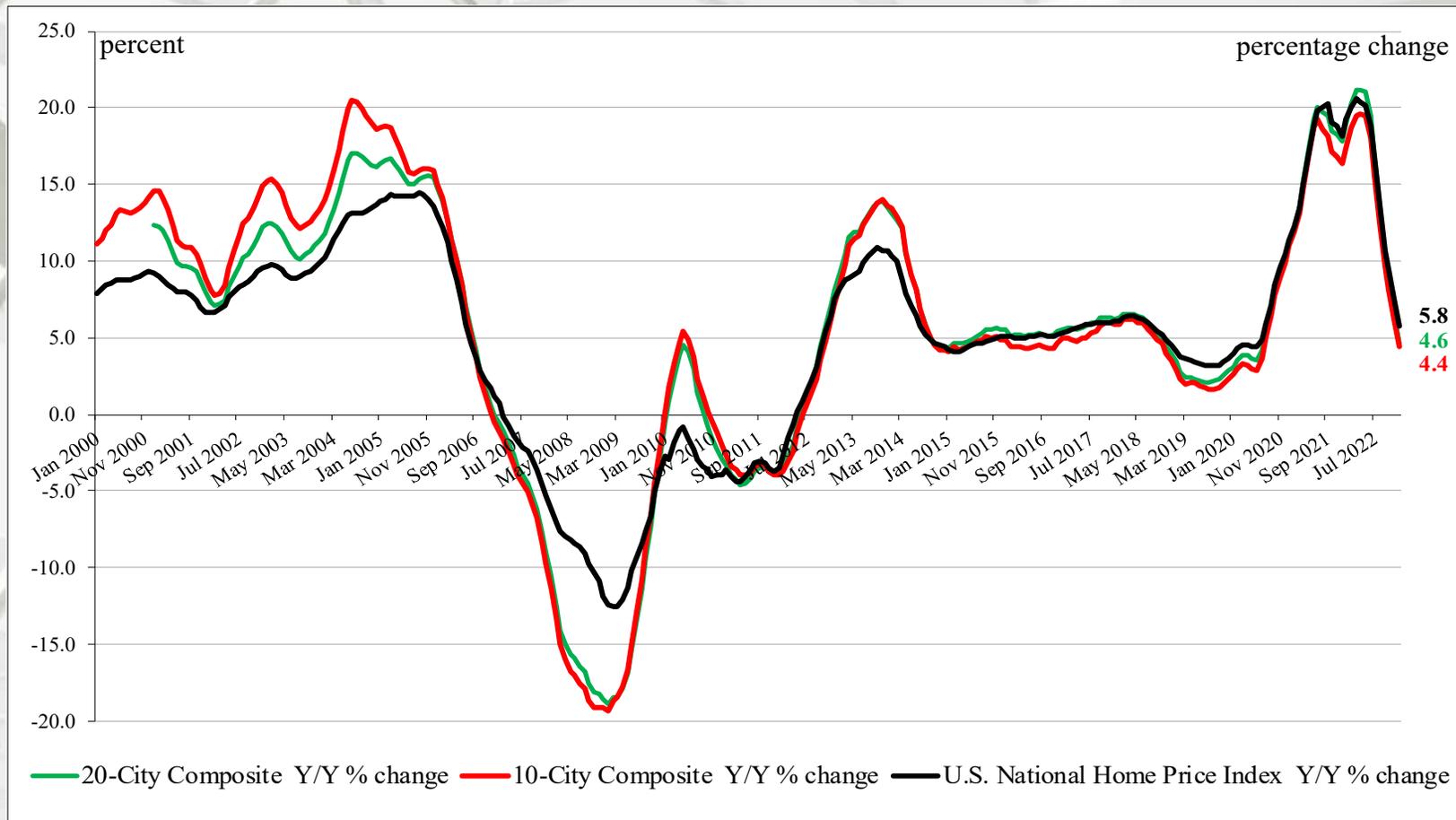
“The prospect of stable, or higher, interest rates means that mortgage financing remains a headwind for home prices, while economic weakness, including the possibility of a recession, may also constrain potential buyers. Given these prospects for a challenging macroeconomic environment, home prices may well continue to weaken.” – 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

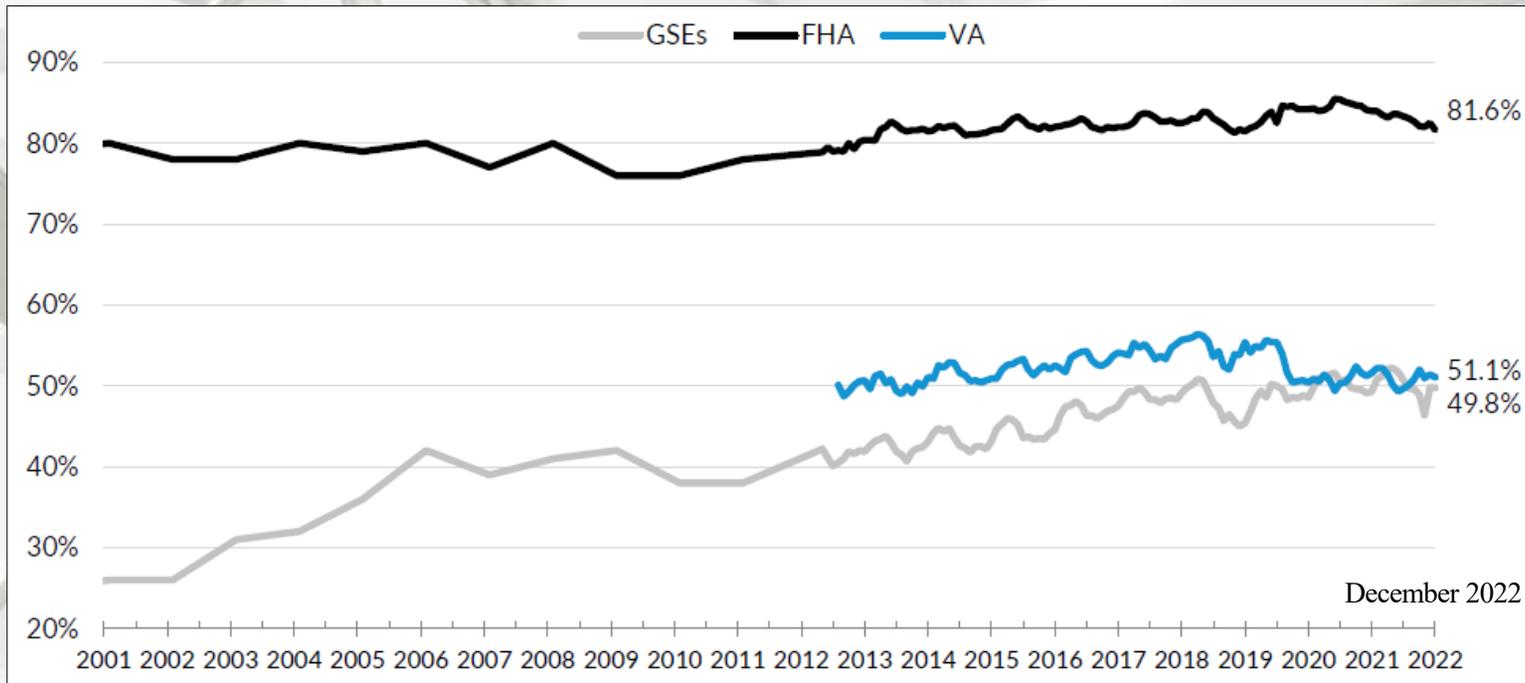


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Y/Y Price Change

From December 2021 to December 2022, the National Index decreased 5.8%; the Ten-City by 4.4%, and the Twenty-City by 4.6%.

U.S. Housing Affordability



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

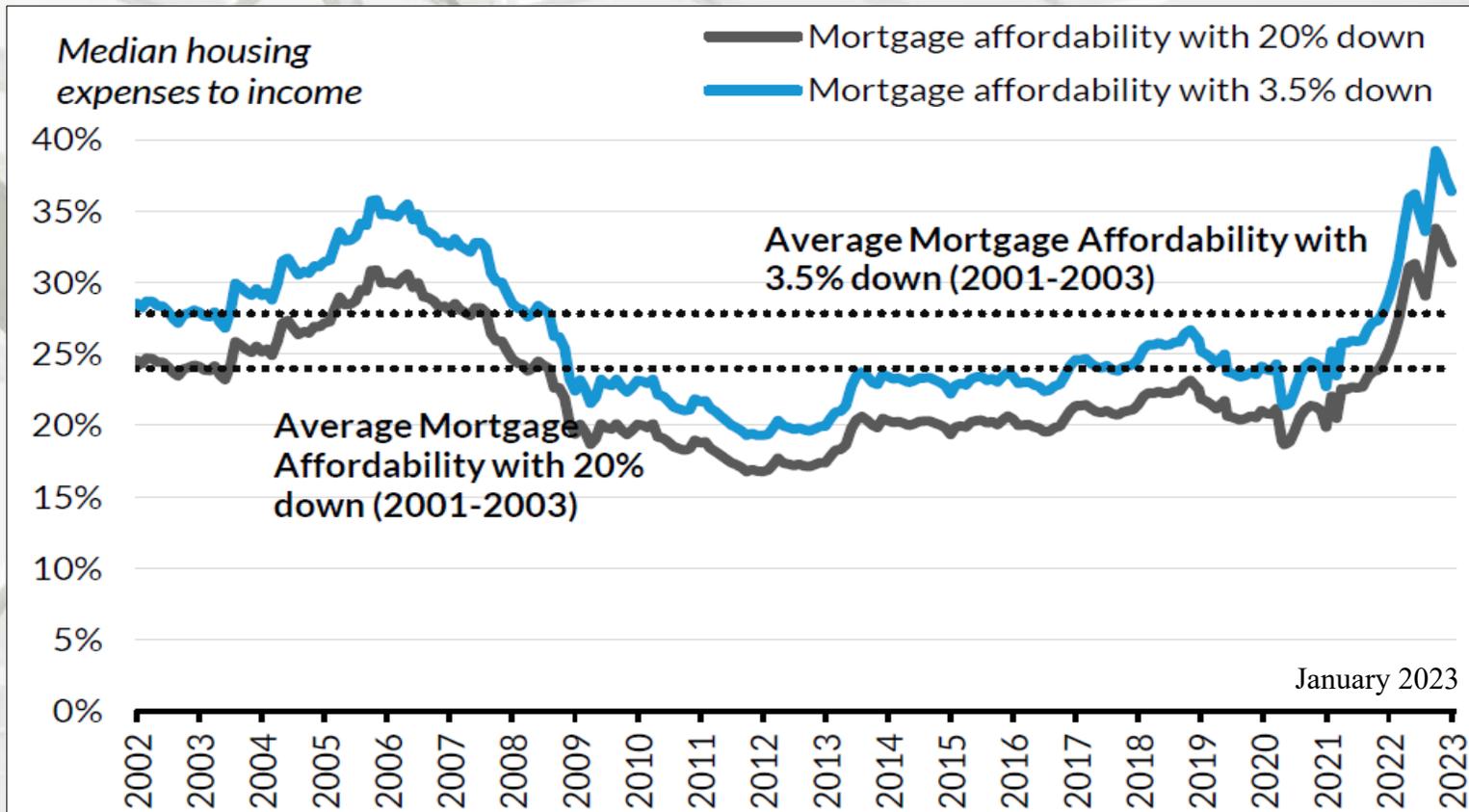
Note: All series measure the first-time home buyer share of purchase loans for principal residences.

Urban Institute

First-time Home Buyers

“In December 2022, the FTHB share for FHA, which has always been more focused on first time home buyers, was 81.6 percent. The FTHB share of GSE lending in November was 49.8 percent; the VA share was 51.1 percent. The bottom table shows that based on mortgages originated in December 2022, 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. Across FHA loans, higher FICO for the average first time homebuyer may have been offset by both a higher LTV and smaller loans, resulting in a higher mortgage rate. ... ” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability

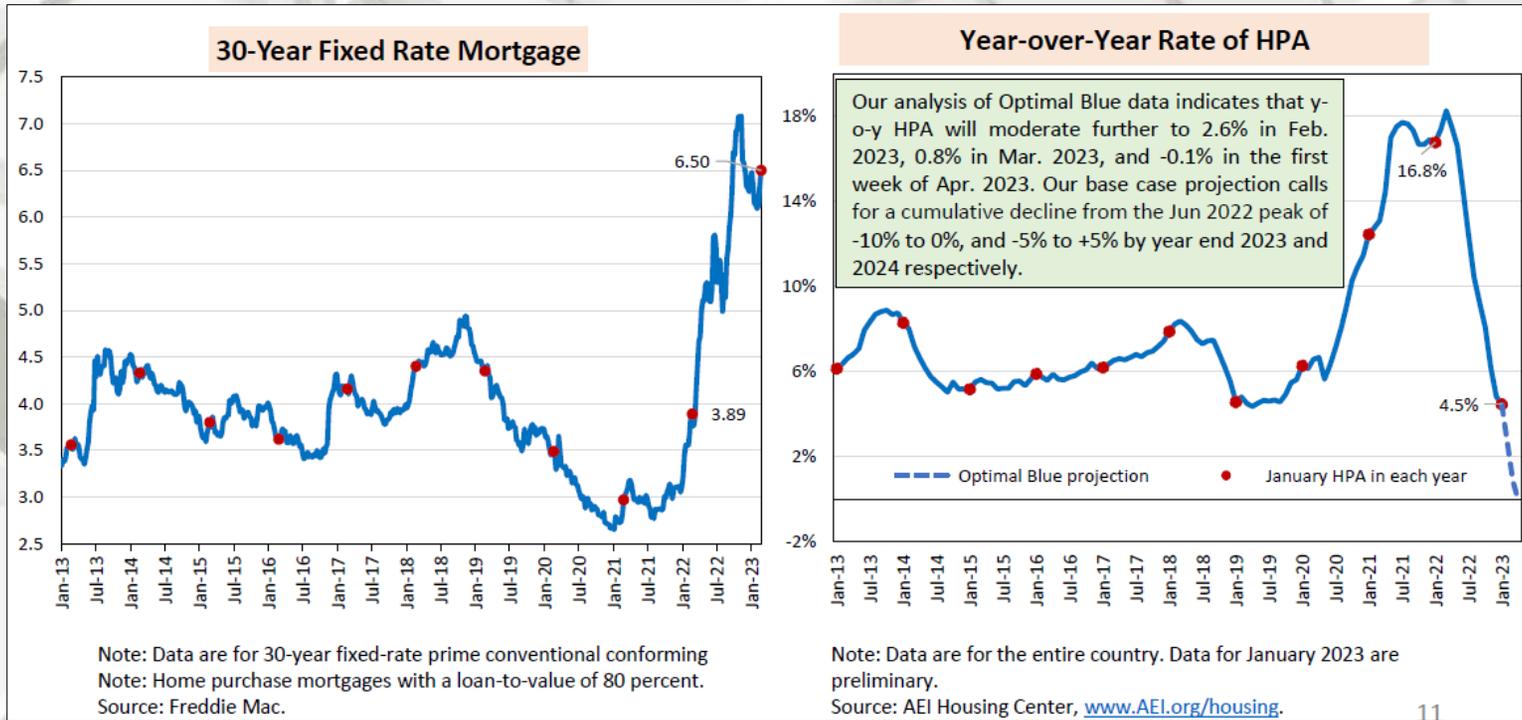


Urban Institute

National Mortgage Affordability Over Time

“Despite some relief in recent months, affordability remains poor. As of January 2023, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.4 percent, slightly higher than the 30.9 percent at the peak of the housing bubble in November 2005; with 3.5 percent down it is 36.4 percent, also slightly above the 35.8 percent prior peak in November 2005. These numbers represent a sharp worsening in affordability over the past year. ... ” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability



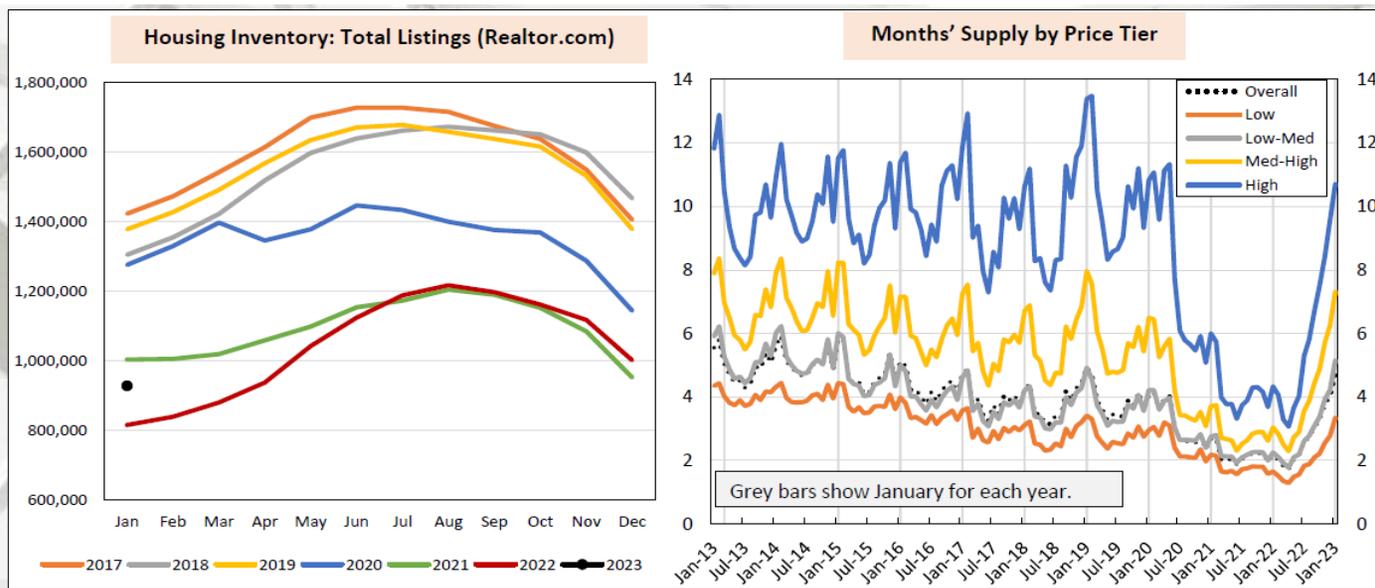
AEI Housing Center

Year over Year (YoY) Home Price Appreciation (HPA) Decline Slowed Down as Month over Month (MoM) HPA Turned Positive for the First Time Since Jun. 2022.

“January 2023’s YoY HPA was 4.5%, which is down from 4.8% a month ago and a significant drop from the YoY peak of 18.3% in March 2022. A year ago January 2022 YoY HPA was at 16.8%.

- MoM HPA was up 1.0%. While January HPA data are subject to revisions next month, the preliminary data signifies a trend reversal from the MoM HPA declines in earlier months.
- Given market resiliency, low unemployment, constrained supply, and strong demographic tailwinds, we continue to project a cumulative decline from the peak of 10% to 0% for December 2023.
- Constant quality HPA controls for mix shifts, 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 Inventory and Months' Supply



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

AEI Housing Center

“January months’ supply increased to 4.7 months from a trough of 1.7 months in April 2022, a good sign in terms of slowing unsustainable HPA. However, housing inventory continued to run below pre-pandemic levels and remains at sellers’ market levels.

- January 2023 overall inventory was up 13.8% from a year ago but was still around two-thirds of 2017-2019 levels. We continue to be below a healthy inventory (left panel).
- Months’ supply stood at 4.7 months in January 2023, up from the pre-pandemic level of 4.1 months in January 2020, 2.2 months in January 2022, and a trough of 1.7 months in April 2022 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

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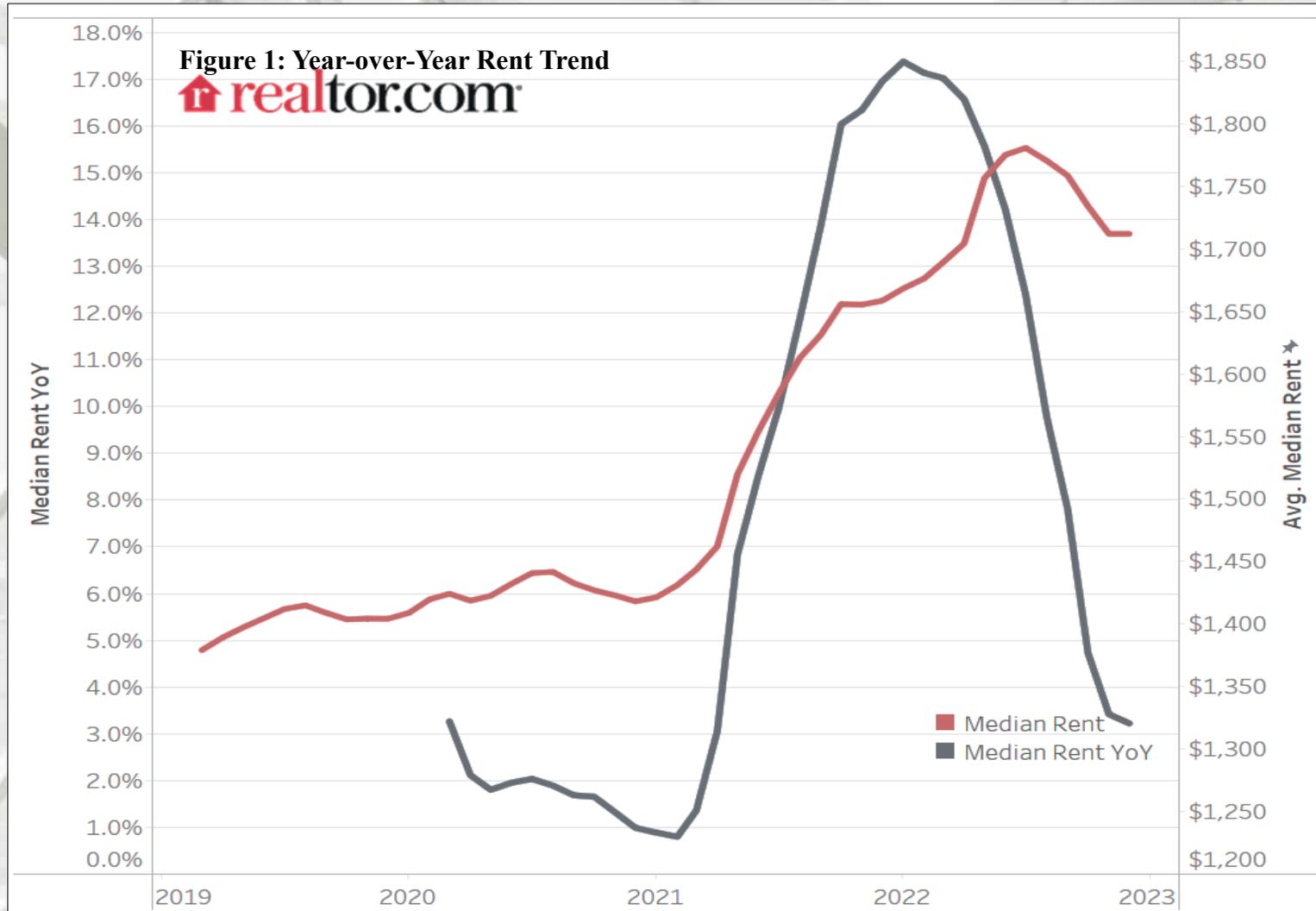
January Rental Report: Despite Rent Growth, Renting a Starter Home is More Affordable than Buying

“Highlights

- With the year-over-year growth rate slowing to 3.2% in January, the 2022 average growth rate for 0-2 bedroom properties across the top 50 metros finished the year in double-digits, at 11.6%.
- Signaling a potential reversal of the recent slowdown, median asking rent plateaued in January (\$1,712), tying November’s level which was down by \$69 from July’s peak.
- In 45 of the 50 largest U.S. metros, the monthly cost of renting a home is lower than buying a starter home, and despite higher rents, renting has become relatively more affordable than buying year-over-year.
- Looking ahead, strong rental demand is expected to outpace improvements in rental supply. Realtor.com® forecasts [that rent growth will continue in 2023, at roughly half the pace](#) of 2022 (6.3%), narrowly above the 2013 to 2019 average rent growth.

After an entire year of slowing down, the year-over-year median rent growth for 0-2 bedroom properties across the top 50 metros hit 3.2% in January 2022, the lowest growth rate in 20 months, down notably from January’s peak trend (17.4%). However, after four months of declines, median asking rent plateaued in January (\$1,712). It is down by \$69 from the peak (July 2022) and is still \$308 (21.9%) higher than January 2019 (pre-pandemic).” – Jiayi Xu and Danielle Hale, Realtor.com®

U.S. Housing



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The advantage of renting is growing in rent-favoring markets

“A common question potential first-time homebuyers face is whether it makes sense to continue renting or make a home purchase. One of the top considerations is the financial costs and benefits of renting versus owning, and one approach is to compare the monthly housing costs of renting a home against the costs of buying a home. To determine the monthly cost of buying a home, we find the median listing price of 0-2 bedrooms home listings (i.e., starter homes). As [first time home buyers plan lower down payments](#), we assume a 7% down payment (based on the [national average](#) since 2018) and use the 30-year fixed mortgage rate during the month to calculate a monthly mortgage payment. We also include the HOA fees, taxes, and homeowner’s insurance averaged at metro levels as part of the costs. We then compare this buy-cost to the median rent in each metro and focus on the difference between monthly expenses for each. In January 2022, a typical renter from the top 50 metros faced \$792 (41.4%) lower monthly payment than a starter homeowner on average. In addition, renting is the more affordable option than buying a starter home in 45 of the 50 largest metros. This is a huge increase compared to 12 months ago when renting was the more affordable option in 30 metros.

The monthly savings from renting in rent-favoring markets grew compared to the prior year. In these markets, the monthly cost of buying a starter home in January 2022 was \$906 (48.0%) higher than the cost of renting, on average. However, renting a 0-2 bedroom unit in the rent-favoring markets in Dec. 2021 would have saved just \$450 (22.9%), on average.” – Jiayi Xu and Danielle Hale, Realtor.com®

U.S. Housing

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The advantage of renting is growing in rent-favoring markets

“Slowing rent growth contributed to this shift: in January 2022, the year-over-year growth in rent-favoring markets was only 3.4%, one fifth of the pace observed 12 months ago. At the same time, skyrocketing mortgage rates upped the cost of taking on a mortgage, making renting relatively more affordable compared to buying. In January 2022, with an average 30-year fixed mortgage rate of 6.36%, the year-over-year growth in the monthly cost to buy for a starter home was 38.1%, climbing to \$2,657. This is more than 10 times the rate of increase for rent during the same period. In comparison, in January 2021, when the mortgage rate was half as high, the cost of buying in rent-favoring markets increased only at about half the rate of rent.

In the top 10 metros that favor renting over buying, the monthly payments for starter homes were 82.2% (\$1,920) higher than rents. Similar to findings in June 2022, these rent-favoring metros are mostly markets with higher concentration of tech workers and high earners, where both the average rent-cost and buy-cost are higher than the national average. Austin, TX topped the list of markets that favor renting, where the monthly cost of buying a “starter” home was \$3,672, which was 121.3% more than the monthly rent of \$1,659, for a monthly savings of \$2,013. San Francisco, CA; Seattle, WA; San Jose, CA and San Diego, CA metro areas round out the top five markets where the cost of buying was higher than the monthly rent.” – Jiayi Xu and Danielle Hale, Realtor.com®

Table 1. Summary Statistics of Rent-favoring Metros

	Counts	Avg. Median Rent	Avg. Monthly Buy Cost	Avg. \$ Diff. (Buy-Rent)	Avg. % Diff. (Buy-Rent)	Avg. Rent YY	Avg. Buy Cost YY
Rent-favoring metros in Dec. 2022	45	\$1,751	\$2,657	\$906	48%	3.4%	38.1%
Rent-favoring metros in Dec. 2021	30	\$1,764	\$2,214	\$450	22.9%	15.9%	8.0%

U.S. Housing

Table 2. Top 10 Metros that Favor Renting over Buying in Dec. 2022

Metro	Median Rent	Monthly Buy Cost	\$ Difference (Buy-Rent)	% Difference (Buy-Rent)	Rent YY	Buy Cost YY
Austin-Round Rock, TX	\$1,659	\$3,672	\$2,013	121.3%	-0.7%	31.1%
San Francisco-Oakland-Hayward, CA	\$2,943	\$5,798	\$2,855	97.0%	3.4%	34.7%
Seattle-Tacoma-Bellevue, WA	\$2,059	\$3,831	\$1,772	86.1%	1.2%	57.3%
San Jose-Sunnyvale-Santa Clara, CA	\$3,156	\$5,777	\$2,621	83.0%	5.9%	39.6%
San Diego-Carlsbad, CA	\$2,702	\$4,787	\$2,085	77.2%	1.2%	51.3%
Los Angeles-Long Beach-Anaheim, CA	\$2,870	\$5,020	\$2,150	74.9%	2.3%	37.7%
Boston-Cambridge-Newton, MA-NH	\$2,868	\$4,965	\$2,097	73.1%	6.4%	32.8%
Portland-Vancouver-Hillsboro, OR-WA	\$1,750	\$2,996	\$1,246	71.2%	4.7%	34.8%
Phoenix-Mesa-Scottsdale, AZ	\$1,592	\$2,708	\$1,116	70.1%	-3.3%	36.6%
Sacramento-Roseville-Arden-Arcade, CA	\$1,834	\$3,075	\$1,241	67.7%	-4.2%	32.9%

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The advantage of renting is growing in rent-favoring markets

“Between January 2021 and June 2022, 11 metros that were previously more favorable for buying became more favorable for renting instead. In January 2022, 10 of these metros still had higher buy costs compared to the cost of renting, which highlights how the persistence of home price gains and mortgage rate increases have shifted the landscape in favor of renting in these areas. In addition, it is interesting to see that even in metros like Miami, Tampa, and Orlando, which have seen some of the highest rent growth and rent costs in the past year, renting offers households a lower monthly cost for starter homes, even as it has become more expensive to do so, raising affordability concerns.” – Jiayi Xu and Danielle Hale, Realtor.com®

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Table 3. Summary Statistics of Buy-favoring Metros

	Counts	Avg. Median Rent	Avg. Monthly Buy Cost	Avg. \$ Diff. (Buy-Rent)	Avg. %Diff. (Buy-Rent)	Avg. Rent YY	Avg. Buy Cost YY
Buy-favoring metros in Dec. 2022	5	\$1,362	\$1,127	\$-235	-18.2%	2.7%	31.6%
Buy-favoring metros in Dec. 2021	20	\$1,500	\$1,261	\$-240	-17.3%	18.3%	9.7%

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The benefit of buying is shrinking in buy-favoring markets

“In January, there were only 5 metros that favored buying starter homes rather than renting. It is a significant decrease from the previous year, when there were 20 metros where buying was a more affordable option.

In these buy-favoring markets, the monthly cost of buying a starter home was \$235 (18.2%) cheaper than the cost of renting, on average. In addition, none of these five metros has a higher monthly buy cost than the national average. However, the financial advantage of buying a starter home instead of renting has decreased in all of these markets. In particular, the savings from buying a starter home rather than renting in Memphis and Baltimore were nearly \$300 less than a year ago. In St. Louis, the savings were \$255 less than last January. In Pittsburgh and Birmingham, the savings were \$130 and \$101 less than the previous year respectively, as high prices and mortgage rates erode the financial payoff to buying, making renting a more attractive option. ...

2023 Rental Market Outlook

In 2022, the average year-over-year growth rate for 0-2 bedroom properties across the top 50 metros was 11.6%. While rent growth slowed throughout 2022, the more moderate slowdown seen in January could suggest that the current downward trend may not continue much longer. In fact, Realtor.com® forecasts [the rent growth will continue in 2023, although at a slower pace.](#)” – Jiayi Xu and Danielle Hale, Realtor.com®

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2023 Rental Market Outlook

“On the demand side, as renting is a more cost-effective option than buying in most of the metros, would-be-homebuyers may spend longer in the rental market, sustaining rental housing demand at a relatively high level. Slowing new single-family construction and anticipated increases in the cost of buying a home in 2023 are likely to reinforce this trend, while expected economic strength increases the number of households searching for a place to call home. However, if the Fed fails to achieve its ‘soft landing’ goal, then a combination of high rent costs, high inflation, and low-income growth may slow the formation of additional renter households. People may prefer to live with their families or take on roommates to save costs and adapt to economic uncertainty.

Specifically, we expect rental demand in big metros to be even stronger in 2023. Dense, urban markets like New York, Chicago, and Boston, which were among the slowest growth metros in 2021, are now topping the fastest growth list. In addition, the biggest rent growth in 2022 was seen among smaller studios, reversing the trend seen in 2021 of larger units commanding the biggest increases. The outperformance of studios is consistent with the recent trend of moving back to urban centers, where studios are more common.

In 2023, we expect a higher number of new rental homes to enter the market, increasing the supply available to renters. With high [mortgage rates](#) and [high listing prices](#), [homebuilding activity continues to pivot to multi-family properties](#). The [latest available data](#) shows that there are more multifamily than single-family homes under construction. Specifically, in November 2022, 915,000 units in buildings with five units or more were under construction compared to 777,000 single family units. In addition, the number of multifamily units under construction is 1.4 times higher than 3 years ago (pre-pandemic) and nearly 4 times higher than a decade ago. Thus, the completion of this extra supply could shift market balance, raising the [still-low rental vacancy rate](#) and helping ease recent rent growth driven by the strong demand.” – Jiayi Xu and Danielle Hale, Realtor.com®

U.S. Housing

Mortgage Bankers Association (MBA)

MBA Chart of the Week

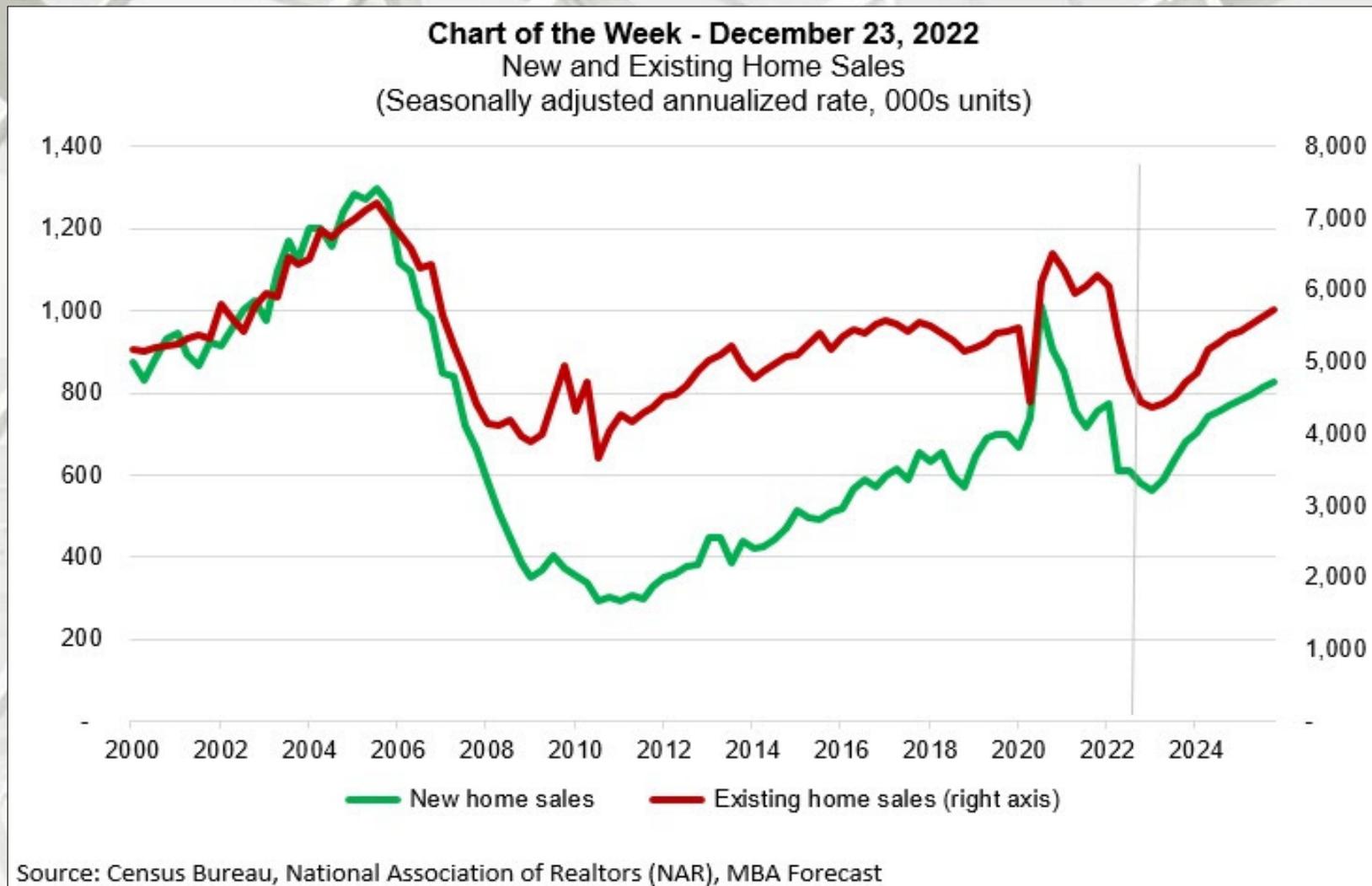
“Recent data from NAR showed that the annualized pace of existing home sales in January 2022 was 4.09 million units – a 35% drop compared to January 2021. This decrease was consistent with the pace of home purchase applications, which have been running around 40% behind last year’s pace over the past few months, based on data from [MBA’s Weekly Applications Survey](#). Additionally, the National Association of Homebuilders’ (NAHB) index of builder sentiment has recorded declines in every month of 2022, citing slower buyer traffic and reduced sales expectations. The impact of that sentiment has shown up in Census data on single-family housing starts, weakening in all but two months so far this year, and MBA’s estimate of new home sales, which has declined in eight out of the past 11 months. One of the main drivers of these trends was the rapid doubling of mortgage rates over the course of 2022 — from around 3% to over 7%, which pushed many buyers out of the market. The [median purchase mortgage payment](#) remained close to \$2,000 in January, an increase of \$594 over the first 11 months of the year, equal to a 42.9% increase, which has severely reduced homebuyer purchasing power.

Taking all this into account, we are forecasting a weak start to 2023 for the housing market. Driven by a recession in the first half of the year and a continuation of the trends outlined above, we expect a 13% drop in existing home sales and a 4% decrease in new home sales for 2023, following 16% decreases in both segments in 2022. Additionally, even though third quarter 2022 data still showed a 12% year-over-year increase in home prices, recent monthly changes have been negative, and the declines in some parts of the country have been quite large. We expect that the low inventory of existing homes and lack of distressed properties on the market will prevent a deeper decline in national home prices, but we do expect more quarters of negative year-over-year price changes.” – Mike Fratantoni, Chief Economist and Senior Vice President of Research and Joel Kan, Industry Technology and Associate Vice President, Industry Surveys and Forecasts, MBA

U.S. Housing

Mortgage Bankers Association (MBA)

MBA Chart of the Week



U.S. Housing

Mortgage Bankers Association (MBA)

MBA Chart of the Week

“However, we remain bullish on housing demand in the medium term: there are 50 million 28-38 year-olds in the US population right now. Household formation should remain robust for the coming years, and many of these young people are at or approaching peak first-time homebuyer age. The first-time homebuyer share is currently 28% after averaging around 40% before rates spiked and that is expected to rebound. The end of the recession, supportive demographic drivers, along with the moderation in home prices and lower mortgage rates that will ease some of the affordability hurdles, will support a 15% increase in existing home sales and a 21% increase in new home sales for 2024.

We do expect that the housing market will lead the U.S. out of this recession, just as it has led the way into one.” – Mike Fratantoni, Chief Economist and Senior Vice President of Research and Joel Kan, Industry Technology and Associate Vice President, Industry Surveys and Forecasts, MBA

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Mortgage Credit Availability Decreased in February

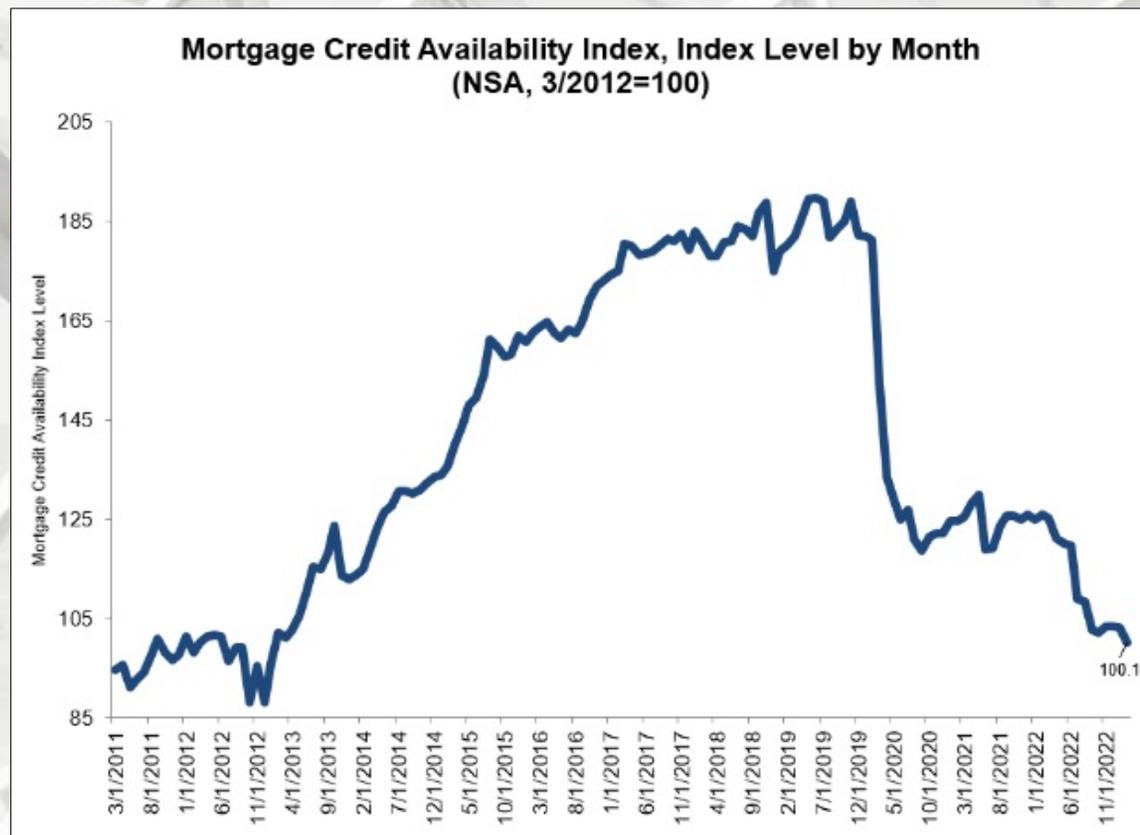
“Mortgage credit availability decreased in February according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

The MCAI fell by 3.0 percent to 100.1 in February. 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 4.4 percent, while the Government MCAI decreased by 1.6 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI decreased by 4.4 percent, and the Conforming MCAI fell by 4.3 percent.

Mortgage credit availability decreased to its lowest level since January 2013 with all loan types seeing declines in availability over the month. The conforming subindex decreased 4.3 percent to its lowest level in the survey, which goes back to 2011. This decline was driven by the ongoing trend of shrinking industry capacity as mortgage rates stayed significantly higher than a year ago. Additionally, in this volatile rate environment and potentially weakening economy, there was also a reduction in refinance programs offered for low credit score and high-LTV borrowers.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

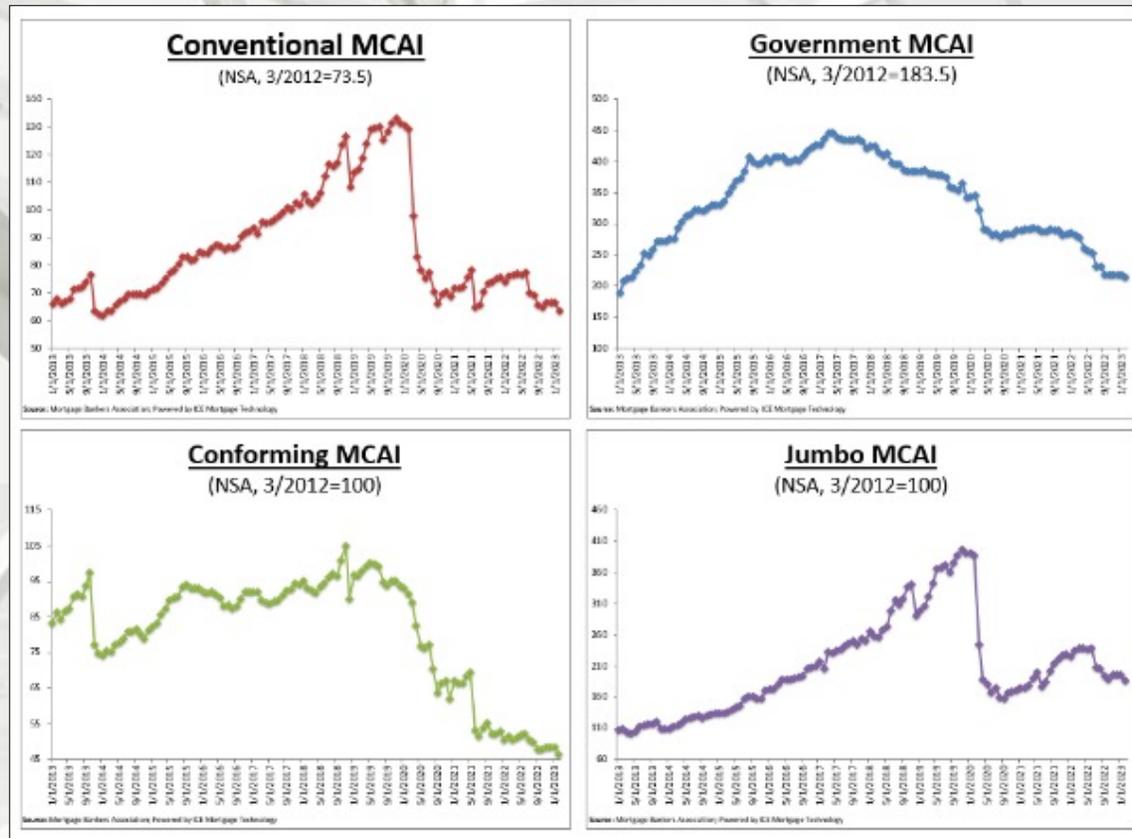
U.S. Housing Finance

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®

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MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

February 21, 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	1,403	1,380	1,389	1,405	1,414	1,470	1,527	1,556	1,585	1,555	1,397	1,534	1,640
Single-Family	1,187	1,086	905	862	864	881	918	946	1,028	1,087	1,140	1,154	1,010	902	1,102	1,210
Two or More	533	561	545	541	516	508	487	468	442	440	416	431	545	495	432	430
Home Sales (SAAR, Thous)																
Total Existing Homes	6,057	5,373	4,770	4,177	4,137	4,237	4,347	4,608	4,891	5,041	5,187	5,205	5,094	4,332	5,081	5,446
New Homes	776	609	580	605	605	583	605	666	709	730	753	761	643	615	738	797
FHFA US House Price Index (YOY % Change)	18.8	17.9	14.2	8.2	4.1	2.4	0.9	-0.6	-2.7	-3.0	-2.0	-1.4	8.2	-0.6	-1.4	2.1
Median Price of Total Existing Homes (Thous \$)	365.8	405.9	391.5	372.8	362.8	359.9	371.1	375.8	364.9	377.6	378.1	381.4	384.0	367.4	375.5	384.7
Median Price of New Homes (Thous \$)	431.3	447.0	465.4	464.1	438.1	432.2	431.8	431.8	423.5	435.6	438.0	440.8	451.9	433.5	434.5	444.0
Interest Rates																
30-Year Fixed Rate Mortgage (%)	3.9	5.3	5.7	6.6	6.4	6.1	5.7	5.3	5.1	5.0	4.8	4.6	6.6	5.3	4.6	4.4
10-Year Treasury Yield (%)	1.9	2.9	3.1	3.8	3.6	3.5	3.4	3.3	3.1	3.1	2.9	2.8	3.8	3.3	2.8	2.5
Mortgage Originations																
Total 1- to 4-Family (Bil \$)	689	678	480	398	333	489	510	541	470	628	595	586	2,245	1,873	2,279	2,468
Purchase	381	477	388	332	267	376	383	397	324	474	428	418	1,578	1,424	1,644	1,783
Refinance	308	201	92	66	66	113	126	144	146	154	167	168	667	449	635	685
Refinance Share (%)	45	30	19	17	20	23	25	27	31	25	28	29	30	24	28	28
FHA Originations (Bil \$)													158	127	139	139
Total 1- to 4-Family (000s loans)	1,939	1,789	1,206	973	816	1,216	1,267	1,331	1,172	1,560	1,493	1,476	5,907	4,630	5,700	6,177
Purchase	1,000	1,202	946	790	634	907	921	937	769	1,133	1,028	1,007	3,938	3,398	3,936	4,272
Refinance	938	588	260	182	182	310	345	394	402	427	465	470	1,969	1,231	1,764	1,905
Refinance Share (%)	48	33	22	19	22	25	27	30	34	27	31	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.



MORTGAGE BANKERS ASSOCIATION

MBA Economic Forecast

MBA Economic Forecast

February 21, 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	2.9	-0.7	-0.6	0.5	1.5	1.7	1.8	1.6	2.0	1.0	0.2	1.8	1.8
Personal Consumption Expenditures	1.3	2.0	2.3	2.1	0.2	-0.3	0.8	1.4	1.4	1.6	1.3	2.0	1.9	0.5	1.6	2.2
Business Fixed Investment	7.9	0.1	6.2	0.7	-1.5	-2.1	-0.2	1.4	2.4	2.3	1.4	1.4	3.7	-0.6	1.9	1.7
Residential Investment	-3.1	-17.8	-27.1	-26.7	-6.9	-4.8	5.9	10.3	14.6	14.6	11.3	9.4	-19.3	0.9	12.5	5.4
Govt. Consumption & Investment	-2.3	-1.6	3.7	3.7	2.6	1.4	1.0	0.8	0.9	0.9	0.8	0.9	0.9	1.4	0.9	0.8
Net Exports (Bil. Chain 2012\$)	-1260.3	-1207.6	-1063.8	-1032.1	-1006.1	-995.7	-981.5	-997.8	-1025.1	-1052.7	-1070.7	-1091.0	-1141.0	-995.3	-1059.9	-1156.6
Inventory Investment (Bil. Chain 2012\$)	182.4	93.7	32.9	110.4	49.7	33.0	0.8	3.4	8.4	12.0	21.2	29.4	104.8	21.7	17.8	43.6
Consumer Prices (YOY)	8.0	8.6	8.3	7.1	5.6	3.9	3.3	3.2	2.9	2.4	2.2	2.1	7.1	3.2	2.1	2.0
Percent																
Unemployment Rate	3.8	3.6	3.5	3.6	3.5	4.0	4.5	4.8	4.8	4.7	4.6	4.4	3.6	4.2	4.6	4.2
Federal Funds Rate	0.375	1.625	3.125	4.375	4.875	5.125	5.125	5.125	4.875	4.125	3.875	3.625	4.375	5.125	3.625	2.375
10-Year Treasury Yield	1.9	2.9	3.1	3.8	3.6	3.5	3.4	3.3	3.1	3.1	2.9	2.8	3.8	3.3	2.8	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

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Summary

In conclusion:

Year-over-year and month-over-month data were mixed. Housing permits, completions, and new sales were positive (month-over-month) in January and were the “bright” spots in an otherwise dismal report. Increasing 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) Inflation;
- 3) The war in Ukraine and other international concerns;
- 4) Construction material, appliance constraints, and logistics/supply chains remain;
- 5) Lot availability and building regulations (according to several sources);
- 6) Labor shortages in many sectors;
- 7) Household formations still lag historical averages;
- 8) Job creation is improving and consistent, but some economists question the quantity and types of jobs being created;
- 9) Debt: Corporate, personal, government – United States and globally;
- 10) Other global uncertainties.

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