

The Virginia Tech–USDA Forest Service Housing Commentary: Section I February 2023



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Virginia Polytechnic Institute and State University

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Table of Contents

Slide 3: Opening Remarks	Slide 45: Region SF House Sales & Price
Slide 4: Housing Scorecard	Slide 49: New SF House Sales x Category
Slide 5: New Housing Starts	Slide 52: New SF Sales-Population Ratio
Slide 12: Regional Housing Starts	Slide 64: Construction Spending
Slide 18: New Housing Permits	Slide 67: Construction Spending Shares
Slide 20: Regional New Housing Permits	Slide 70: Remodeling
Slide 25: Housing Under Construction	Slide 76: Existing House Sales
Slide 28: Regional Under Construction	Slide 79: U.S. Housing Prices & Finance
Slide 33: Housing Completions	Slide 103: Mortgage Finance & Outlook
Slide 35: Regional Housing Completions	Slide 105: Summary
Slide 37: New Housing Sales	Slide 106: Virginia Tech Disclaimer
Slide 43: New Single-Family House Sales	Slide 107: USDA Disclaimer

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<http://woodproducts.sbio.vt.edu/housing-report>.

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Opening Remarks

Year-over-year and month-over-month data were mixed. Housing permits, completions, and new sales were positive (month-over-month) in February 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 April 14th Atlanta Fed GDPNow™ total residential investment spending forecast is a negative 5.8% (quarterly log change). New private permanent site expenditures were projected at -15.3%; the improvement spending forecast was -3.3%; and the manufactured/mobile home expenditures projection was -39.3% (all: quarterly log change and at a seasonally adjusted annual rate).¹

“...Arguably, the nation’s principal housing challenge is that of affordability. The share of renters facing housing cost burdens rose from the 2000s through the middle of last decade. While the years before the pandemic saw a modest recovery, the cost-burdened share of renters has now worsened substantially in the face of rising rents. While young adults and people of color were able to make up some lost ground in home owning, following the Great Recession, the combination of very high home prices and now much higher interest rates has priced most would-be owners out of the market. Today’s worsening home buyer affordability is particularly concerning given stubbornly high disparities in home ownership rates for Black and Hispanic households. One notable feature of the trends in housing affordability over the last two decades has been the spread of these problems to those higher up the income ladder. The recent jump in renter cost burdens has in fact been most pronounced among middle-income renters. ...”² – Chris Herbert, Managing Director, Joint Center for Housing Studies

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; 4/14/23

² <https://www.jchs.harvard.edu/blog/state-us-housing-roller-coaster-ride>; 2/21/23

February 2023 Housing Scorecard

	M/M	Y/Y
Housing Starts	▲ 9.8%	▼ 18.4%
Single-Family (SF) Starts	▲ 1.1%	▼ 31.6%
Multi-Family (MF) Starts*	▲ 24.0%	▲ 9.9%
Housing Permits	▲ 15.8%	▼ 16.5%
SF Permits	▲ 8.9%	▼ 34.7%
MF Permits*	▲ 23.8%	17.0%
Housing Under Construction	▼ 0.2%	▲ 6.9%
SF Under Construction	▼ 1.7%	▼ 8.0%
Housing Completions	▲ 12.2%	▲ 12.8%
SF Completions	▲ 1.0%	▼ 3.6%
New SF House Sales	▲ 1.1%	▼ 19.0%
Private Residential Construction Spending	▼ 0.6%	▼ 5.7%
SF Construction Spending	▼ 1.8%	▼ 21.4%
Existing House Sales ¹	▲ 14.5%	▼ 22.6%

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

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

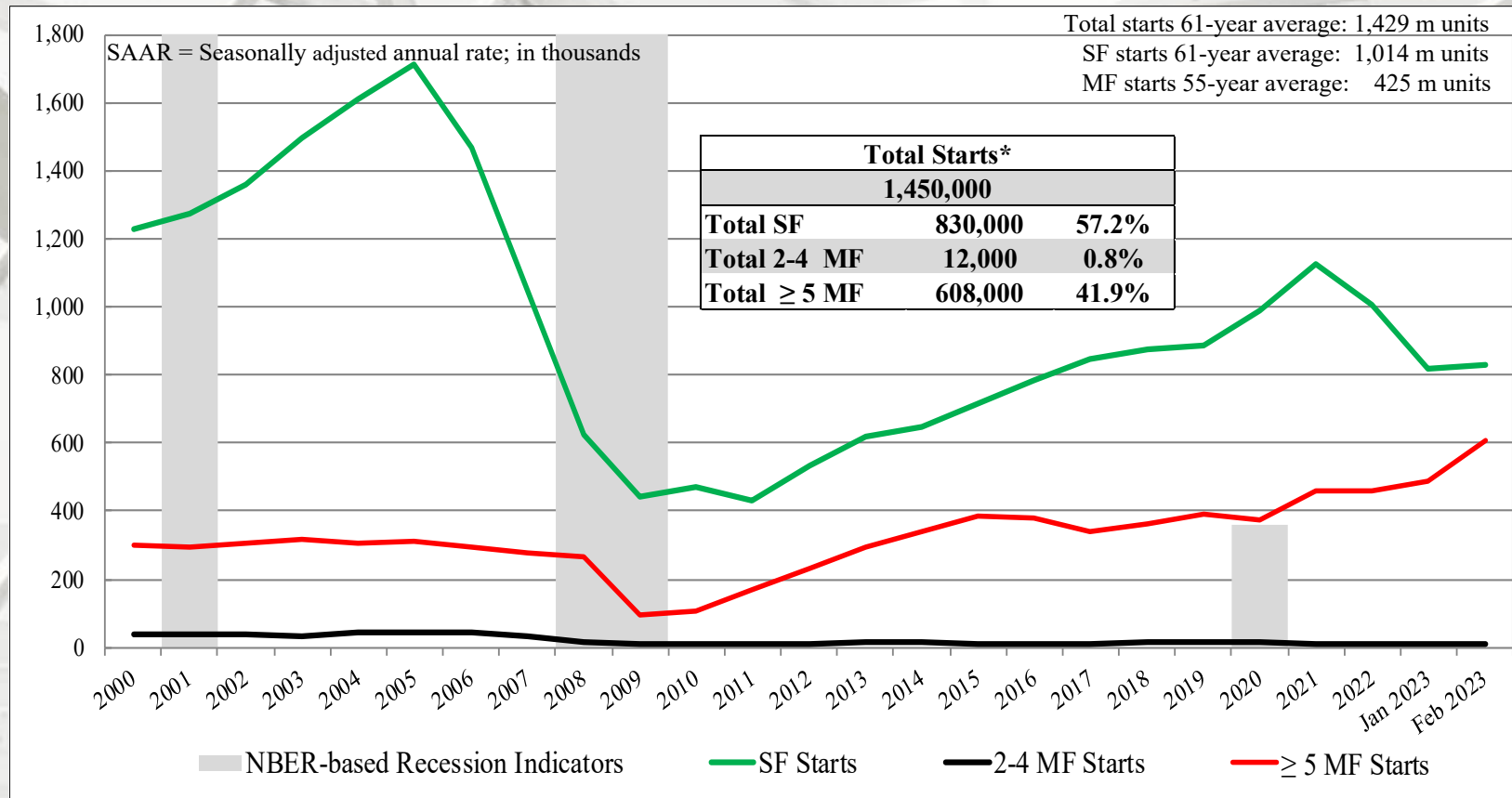
New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
February	1,450,000	830,000	12,000	608,000
January	1,321,000	821,000	10,000	490,000
2022	1,777,000	1,213,000	32,000	532,000
M/M change	9.8%	1.1%	20.0%	24.1%
Y/Y change	-18.4%	-31.6%	-62.5%	14.3%

* 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

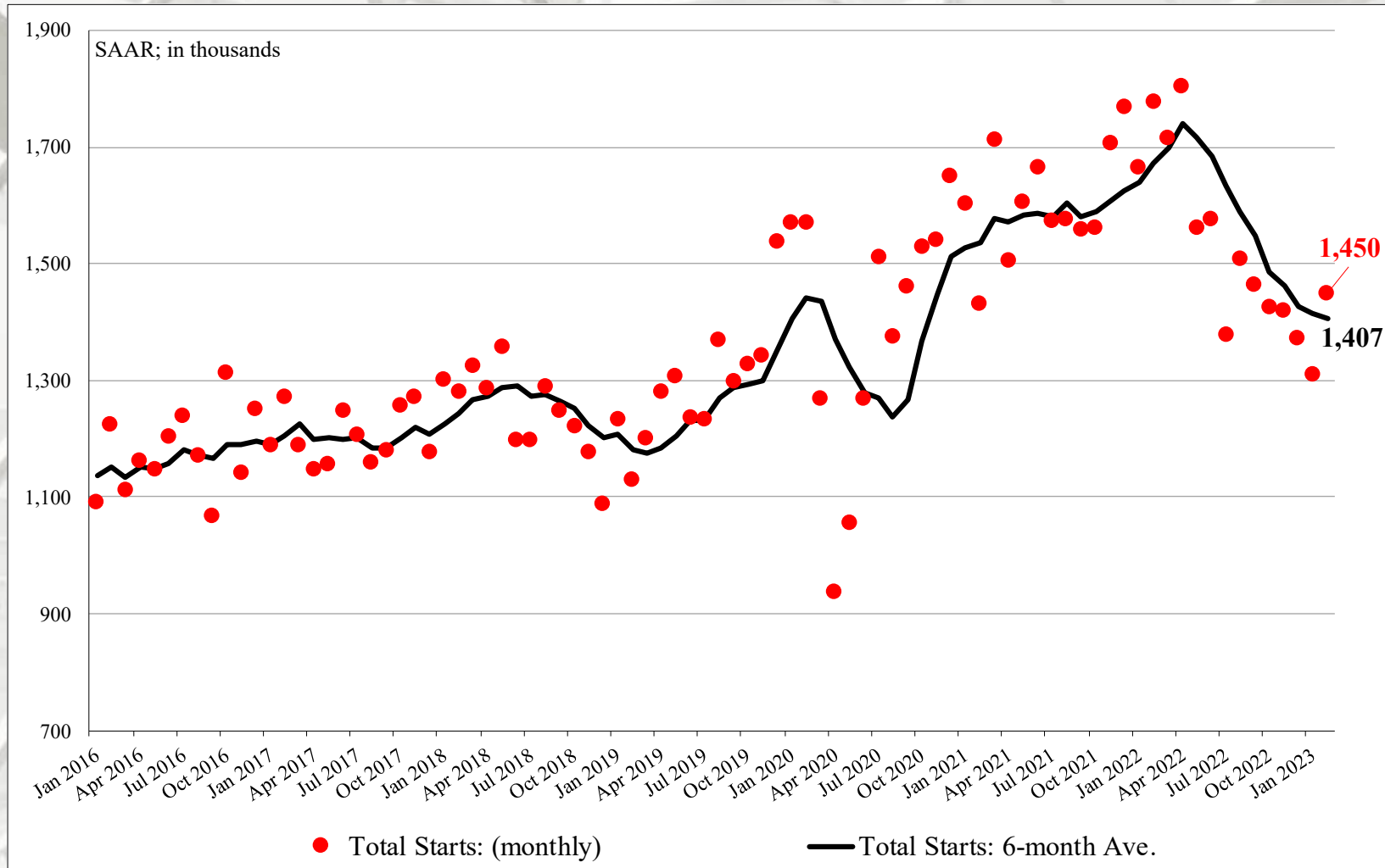


US DOC does not report 2 to 4 multi-family starts directly; this is an estimation: (Total starts – (SF + 5-unit MF)).

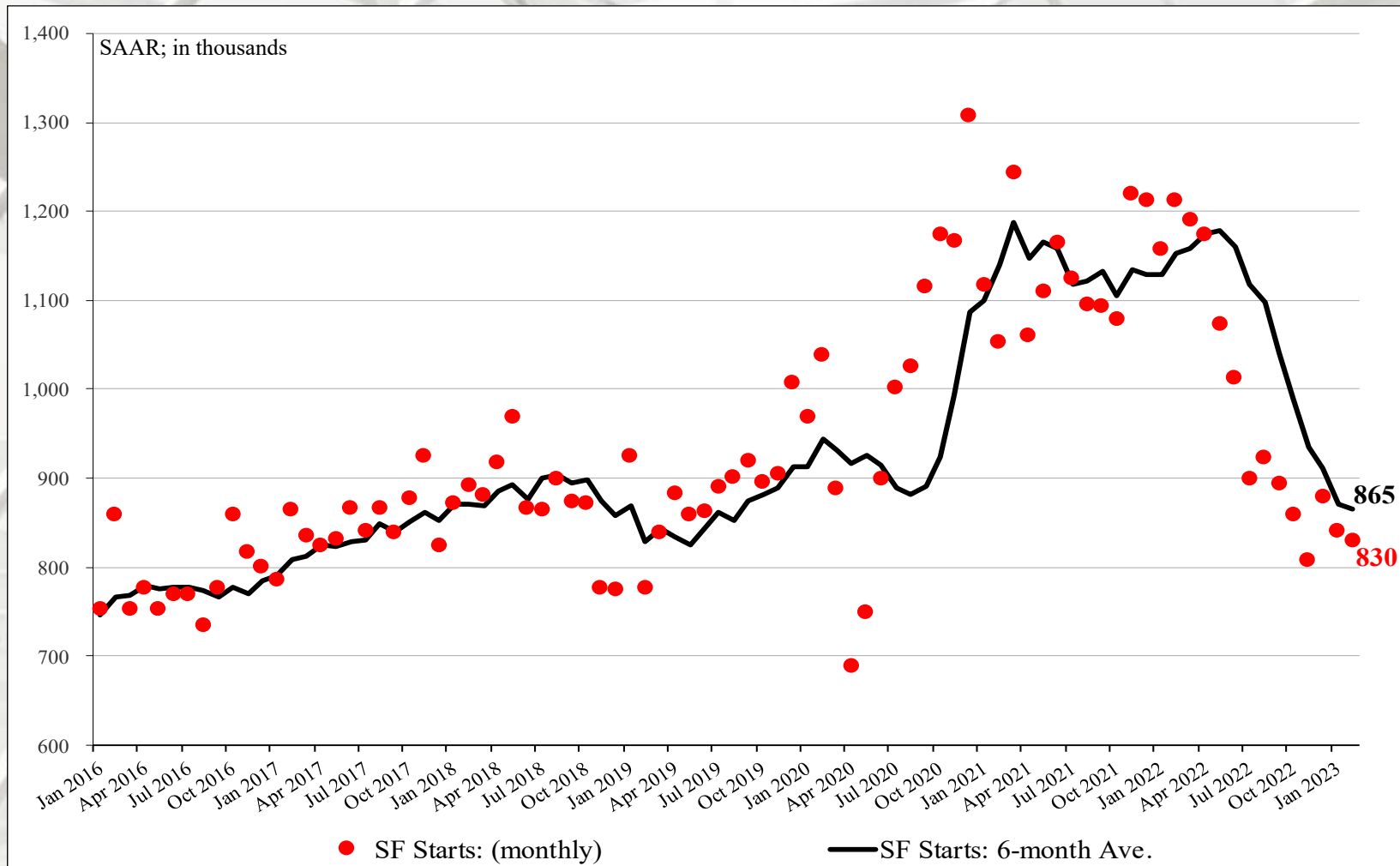
* Percentage of total starts.

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

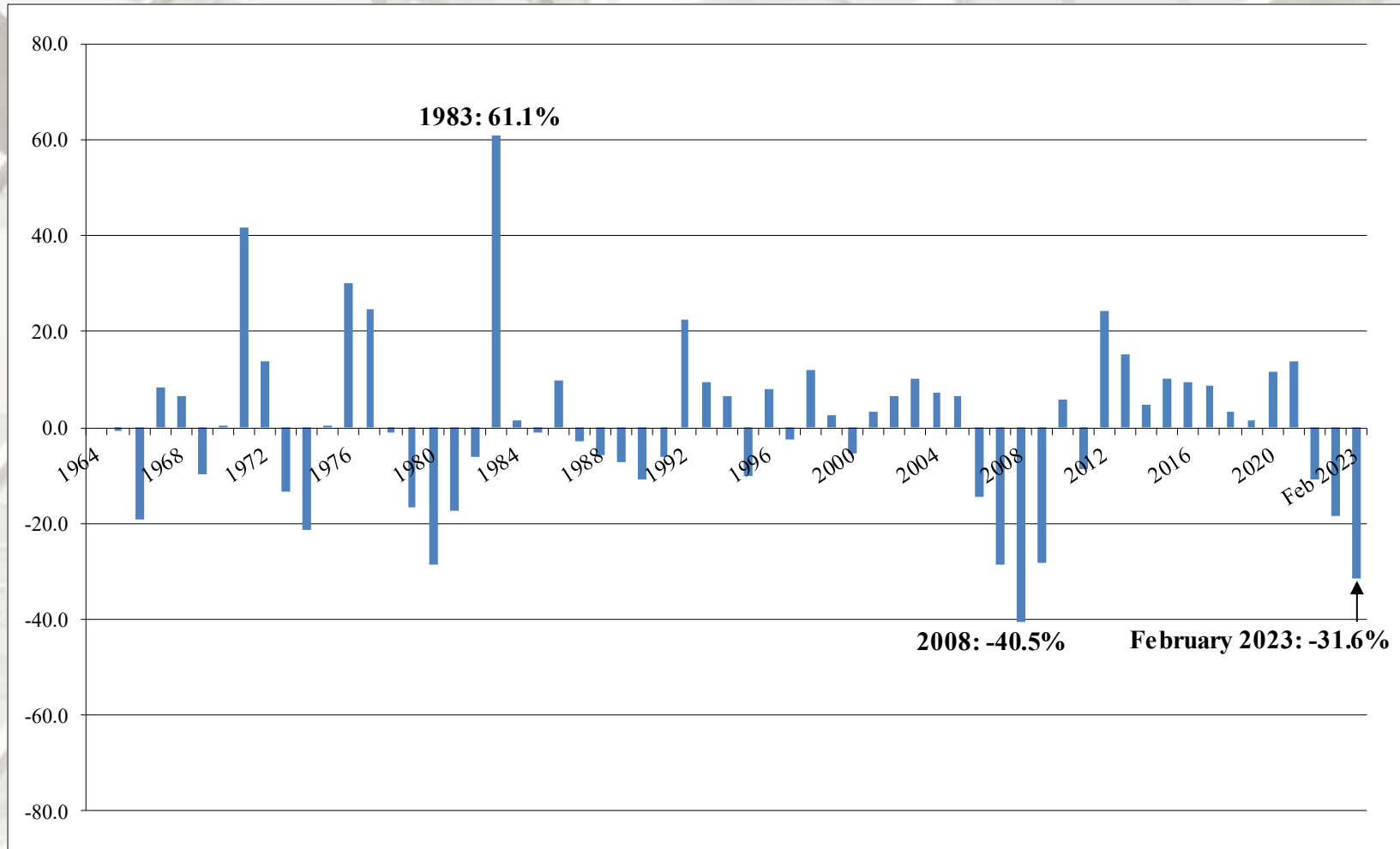
Total Housing Starts: Six-Month Moving Average



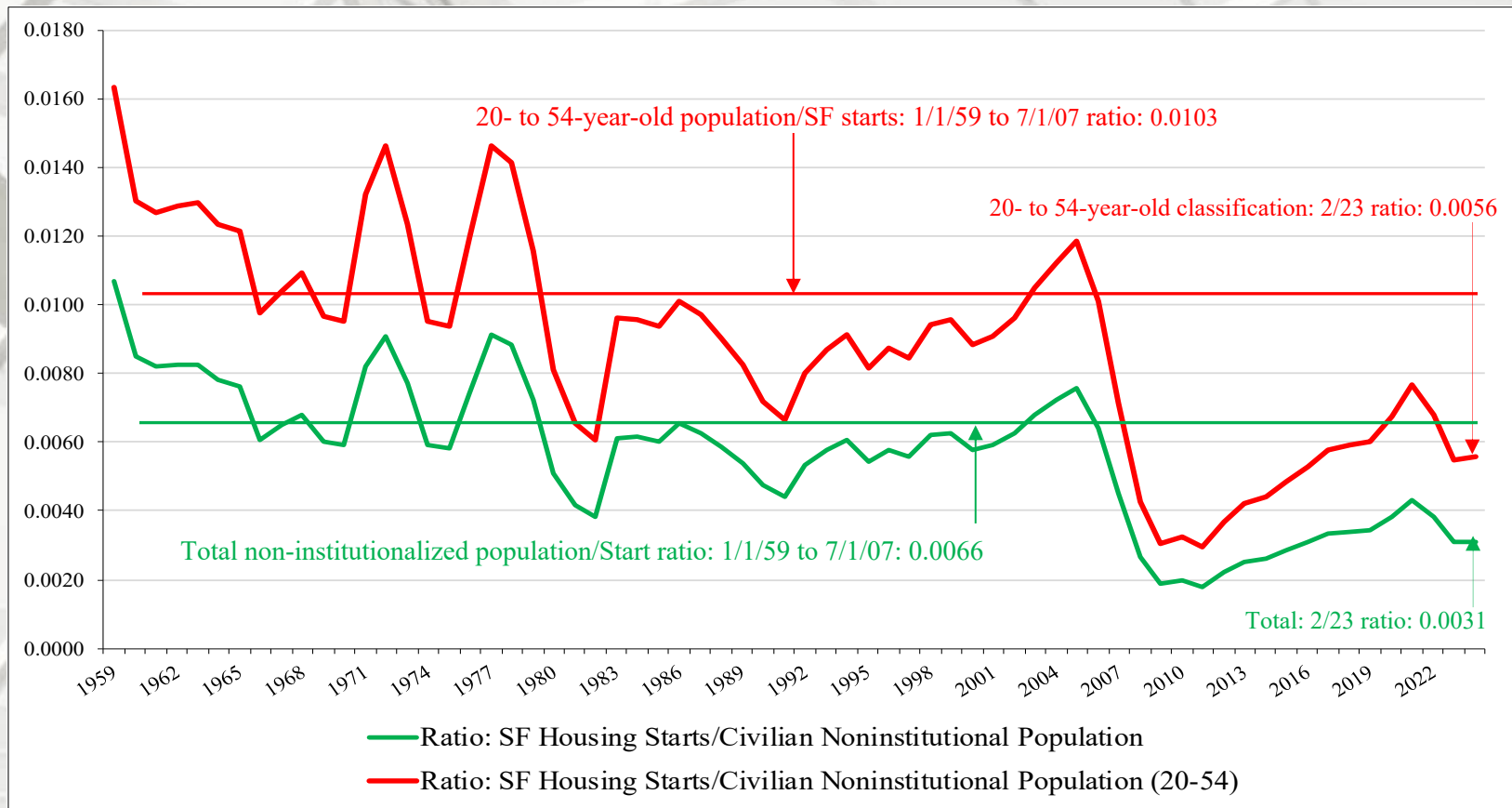
SF Housing Starts: Six-Month Moving Average



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



New SF Starts

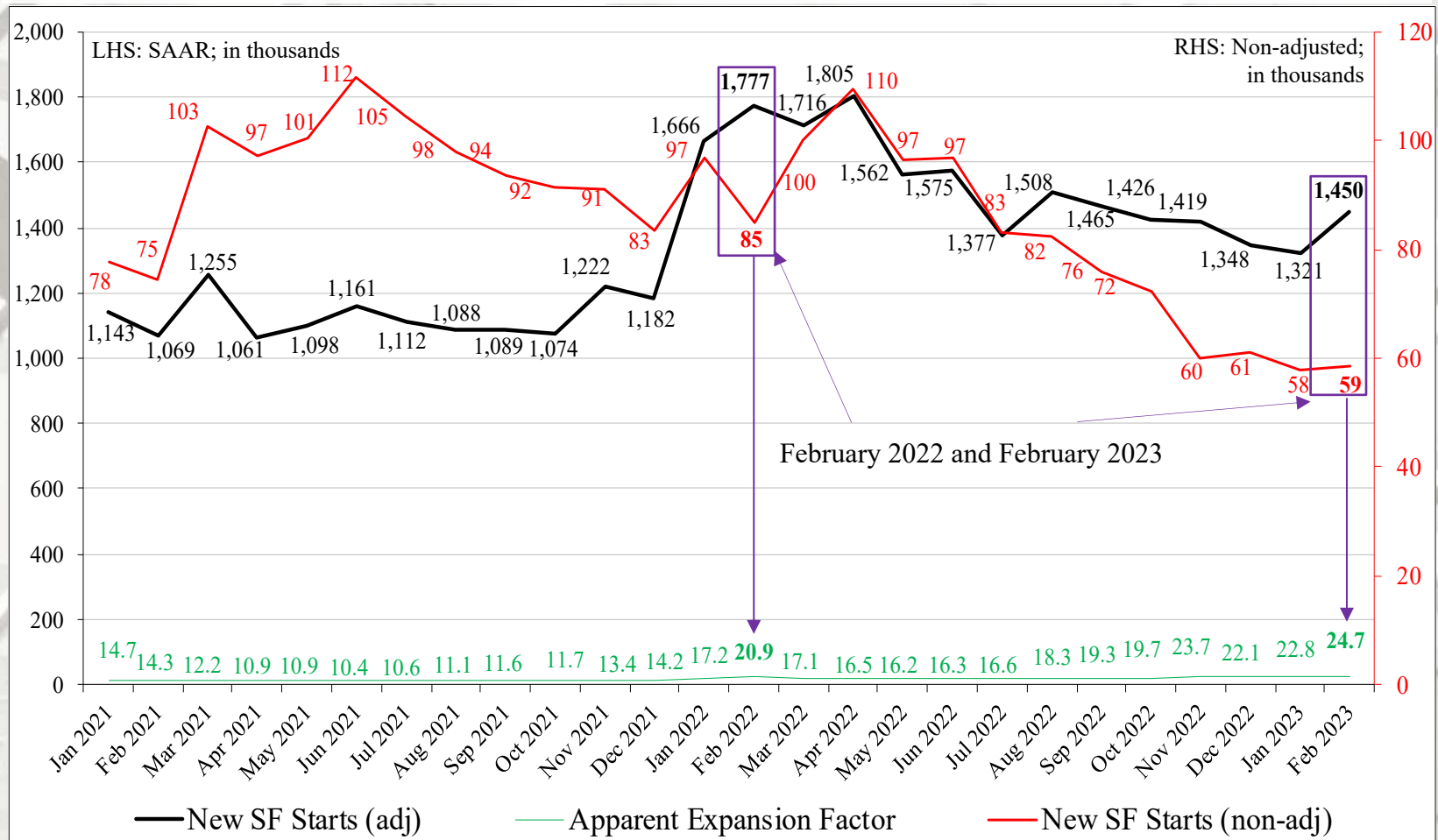


New SF starts adjusted for the US population

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 February 2022 it was 0.0031 – no change from January. The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in February 2023 it was 0.0056 – an increase from January (0.0055). 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**
February	106,000	63,000	43,000
January	127,000	58,000	69,000
2022	134,000	71,000	63,000
M/M change	-16.5%	8.6%	-37.7%
Y/Y change	-20.9%	-11.3%	-31.7%
	MW Total	MW SF	MW MF
February	201,000	91,000	110,000
January	118,000	99,000	19,000
2022	234,000	157,000	77,000
M/M change	70.3%	-8.1%	478.9%
Y/Y change	-14.1%	-42.0%	42.9%

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).

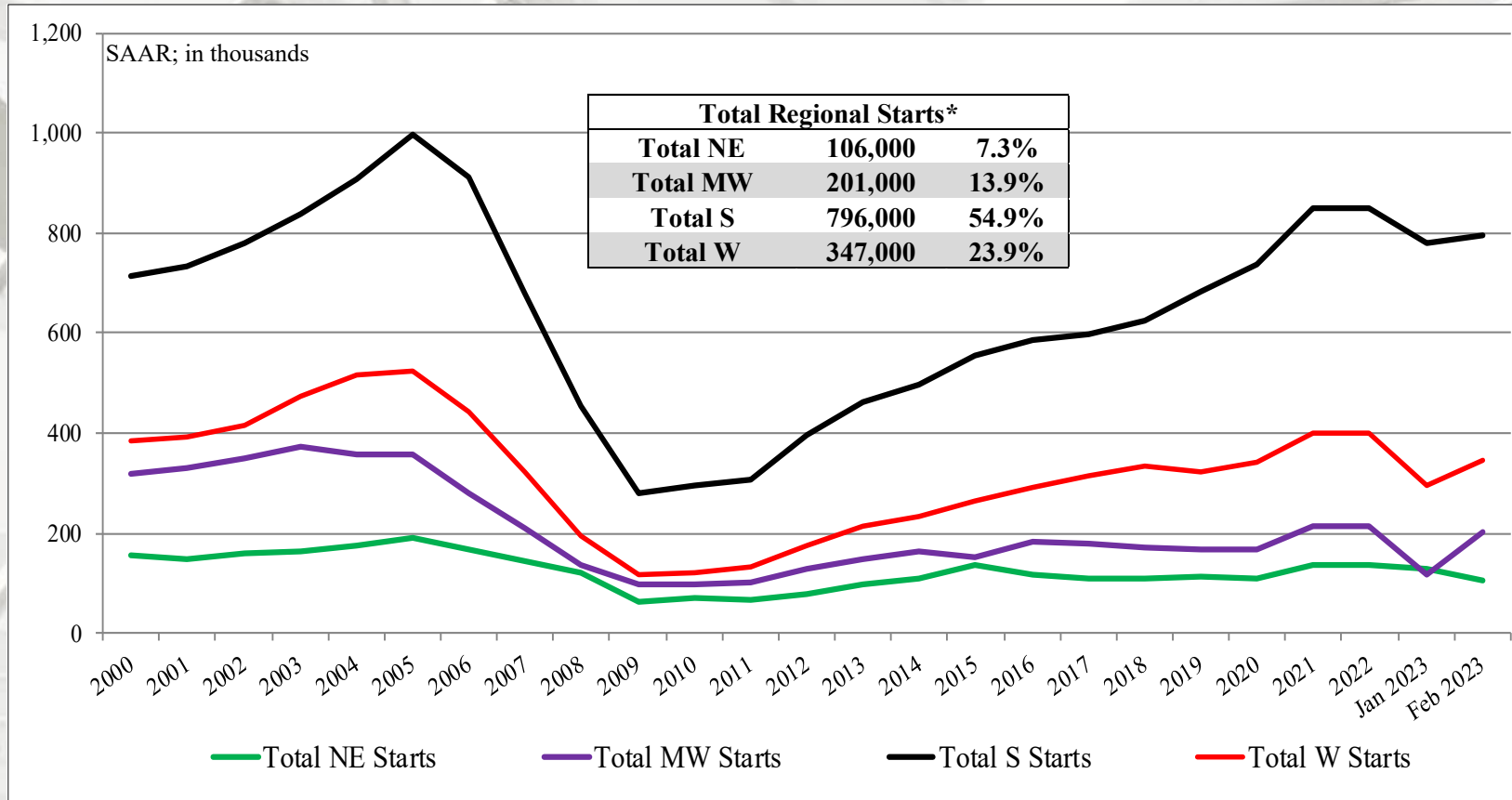
New Housing Starts by Region

	S Total	S SF	S MF**
February	796,000	509,000	287,000
January	779,000	534,000	245,000
2022	999,000	681,000	318,000
M/M change	2.2%	-4.7%	17.1%
Y/Y change	-20.3%	-25.3%	-9.7%
	W Total	W SF	W MF
February	347,000	167,000	180,000
January	297,000	130,000	167,000
2022	410,000	304,000	106,000
M/M change	16.8%	28.5%	7.8%
Y/Y change	-15.4%	-45.1%	69.8%

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

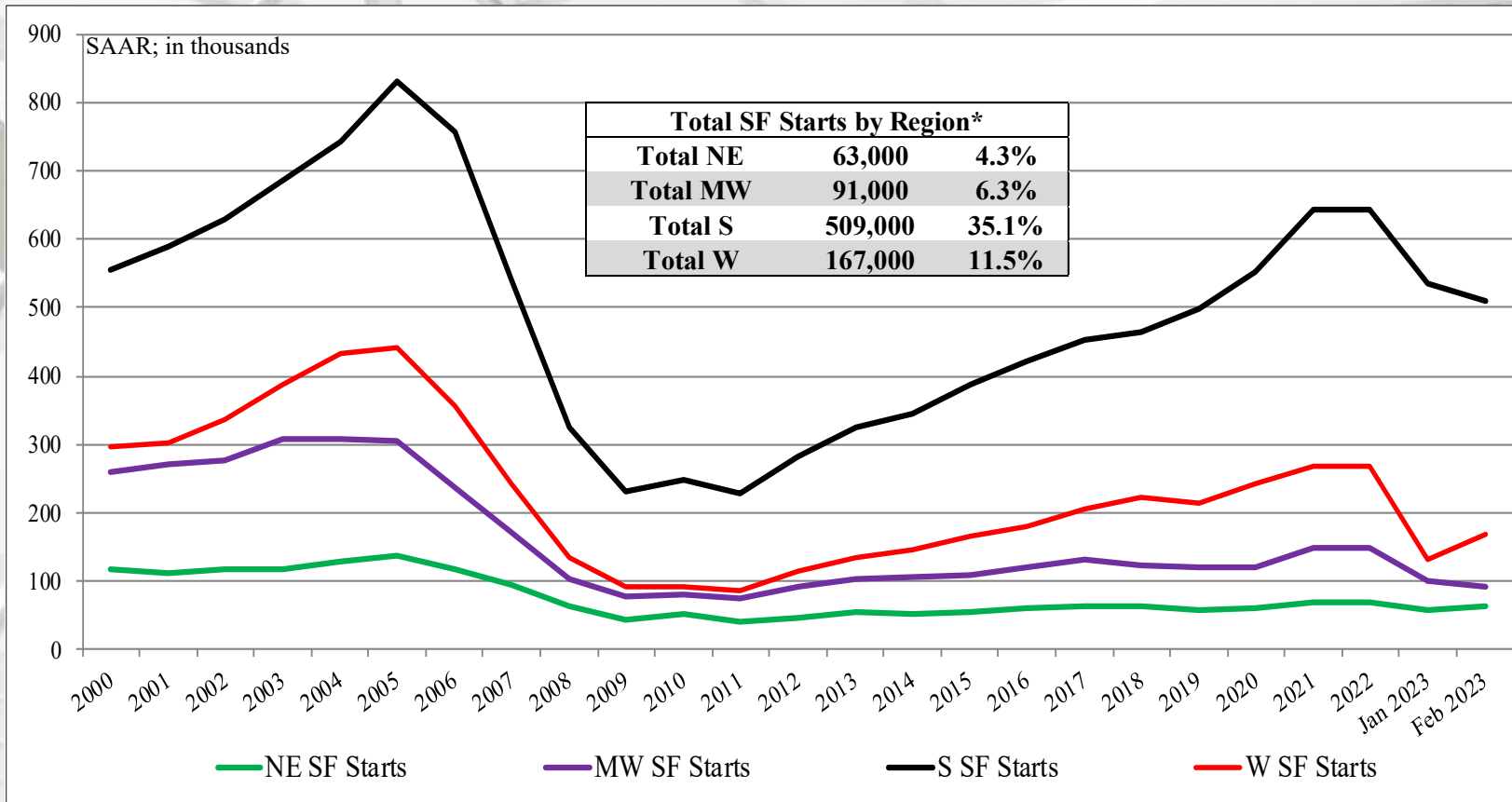


NE = Northeast, MW = Midwest, S = South, W = West

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

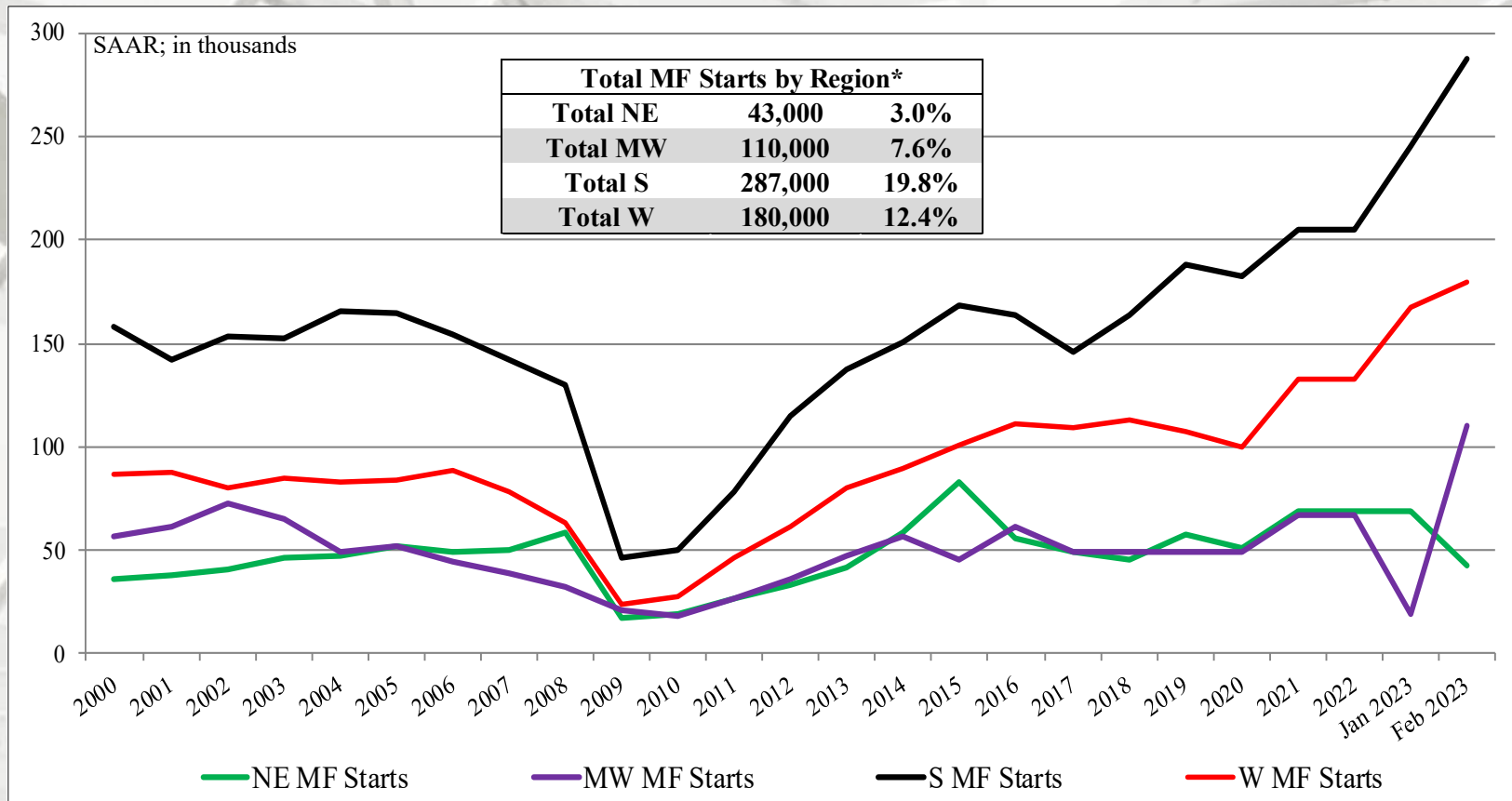


NE = Northeast, MW = Midwest, S = South, W = West

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

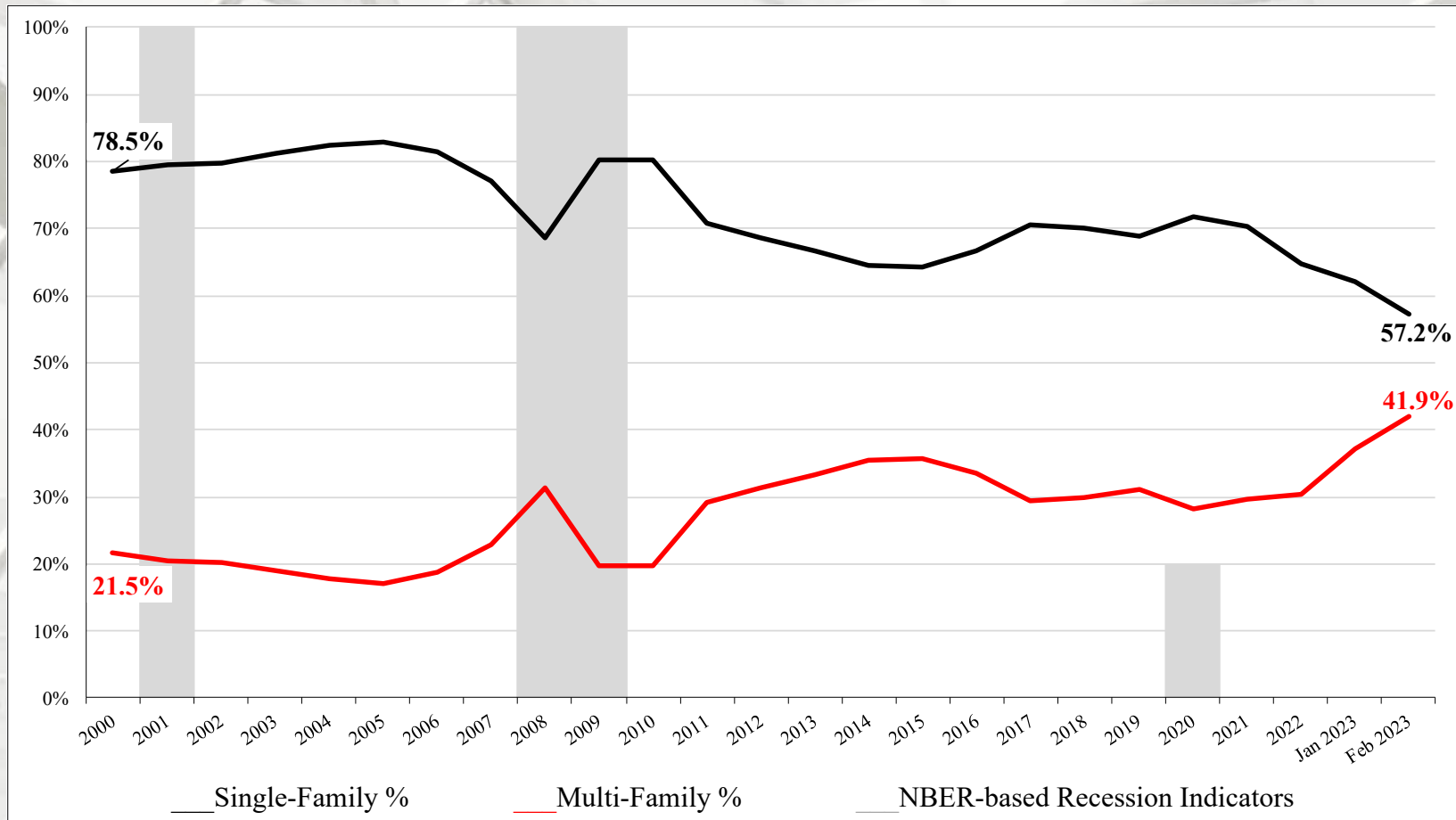


NE = Northeast, MW = Midwest, S = South, W = West

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 (%)



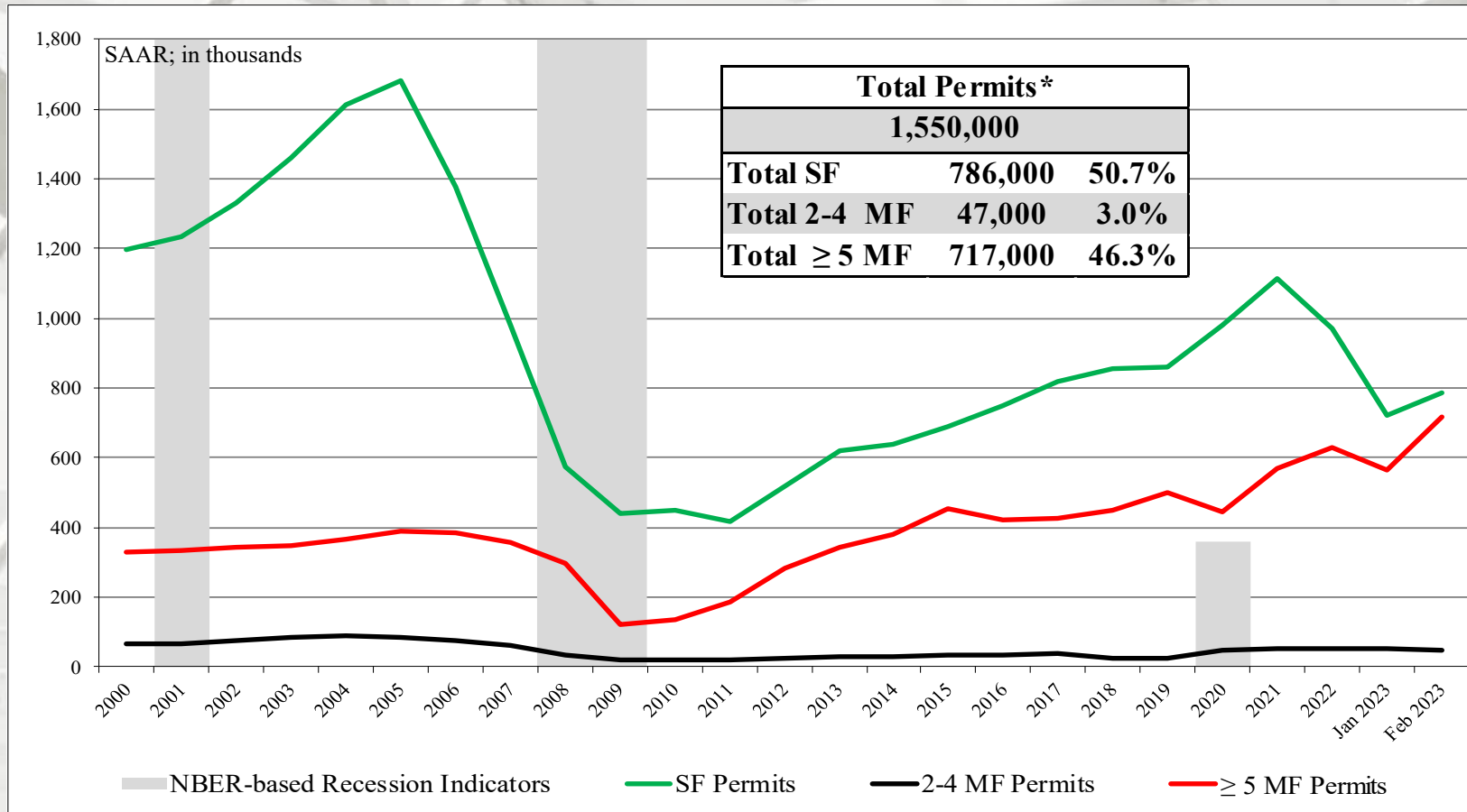
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
February	1,550,000	786,000	47,000	717,000
January	1,339,000	722,000	54,000	563,000
2022	1,857,000	1,204,000	54,000	599,000
M/M change	15.8%	8.9%	-13.0%	27.4%
Y/Y change	-16.5%	-34.7%	-13.0%	19.7%

* 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**
February	115,000	54,000	61,000
January	106,000	55,000	51,000
2022	179,000	75,000	104,000
M/M change	8.5%	-1.8%	19.6%
Y/Y change	-35.8%	-28.0%	-41.3%

	MW Total*	MW SF	MW MF**
February	196,000	103,000	93,000
January	178,000	92,000	86,000
2022	249,000	146,000	103,000
M/M change	10.1%	12.0%	8.1%
Y/Y change	-21.3%	-29.5%	-9.7%

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

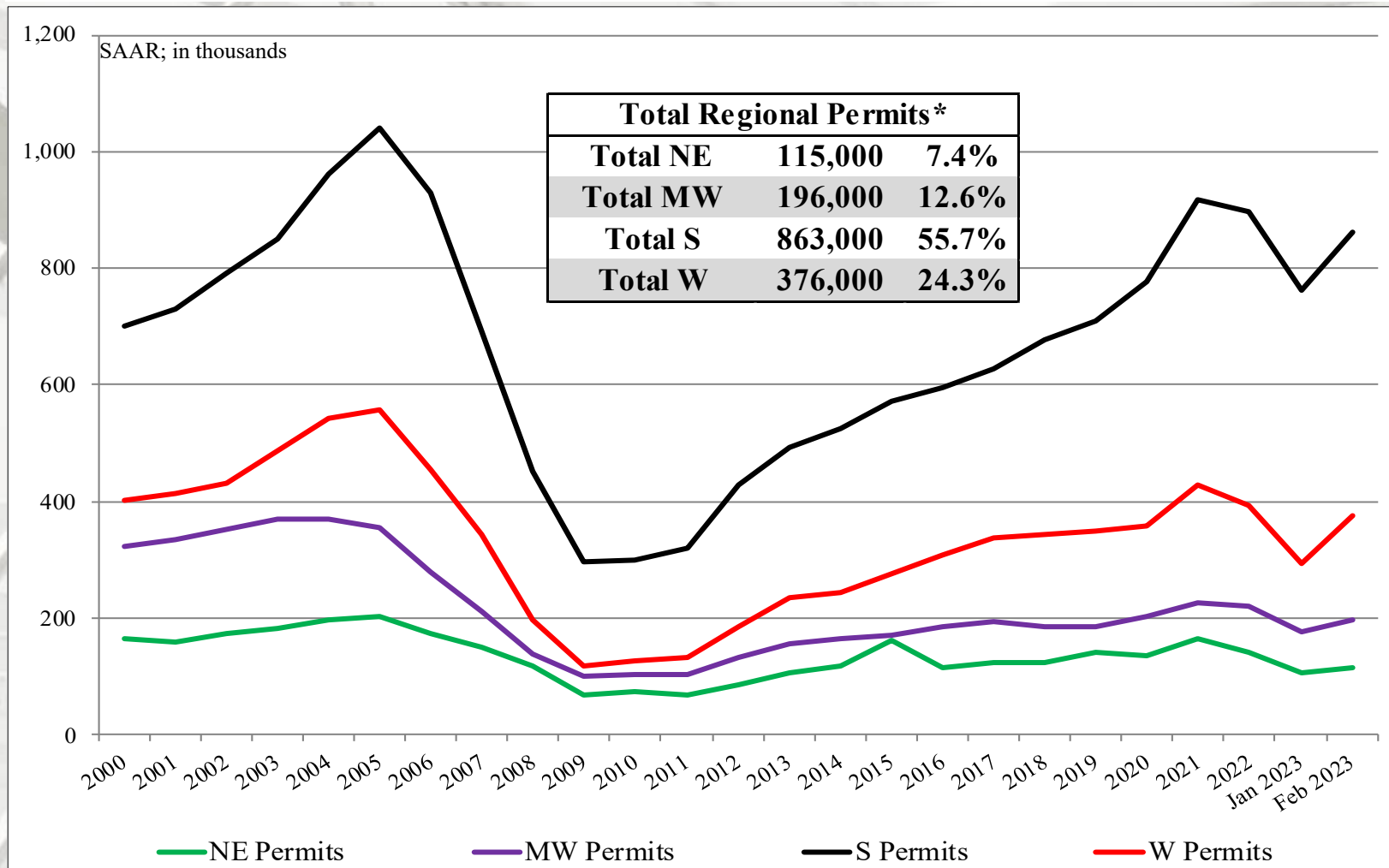
	S Total*	S SF	S MF**
February	863,000	472,000	391,000
January	762,000	430,000	332,000
2022	954,000	696,000	258,000
M/M change	13.3%	9.8%	17.8%
Y/Y change	-9.5%	-32.2%	51.6%
	W Total*	W SF	W MF**
February	376,000	157,000	219,000
January	293,000	145,000	148,000
2022	475,000	287,000	188,000
M/M change	28.3%	8.3%	48.0%
Y/Y change	-20.8%	-45.3%	16.5%

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).

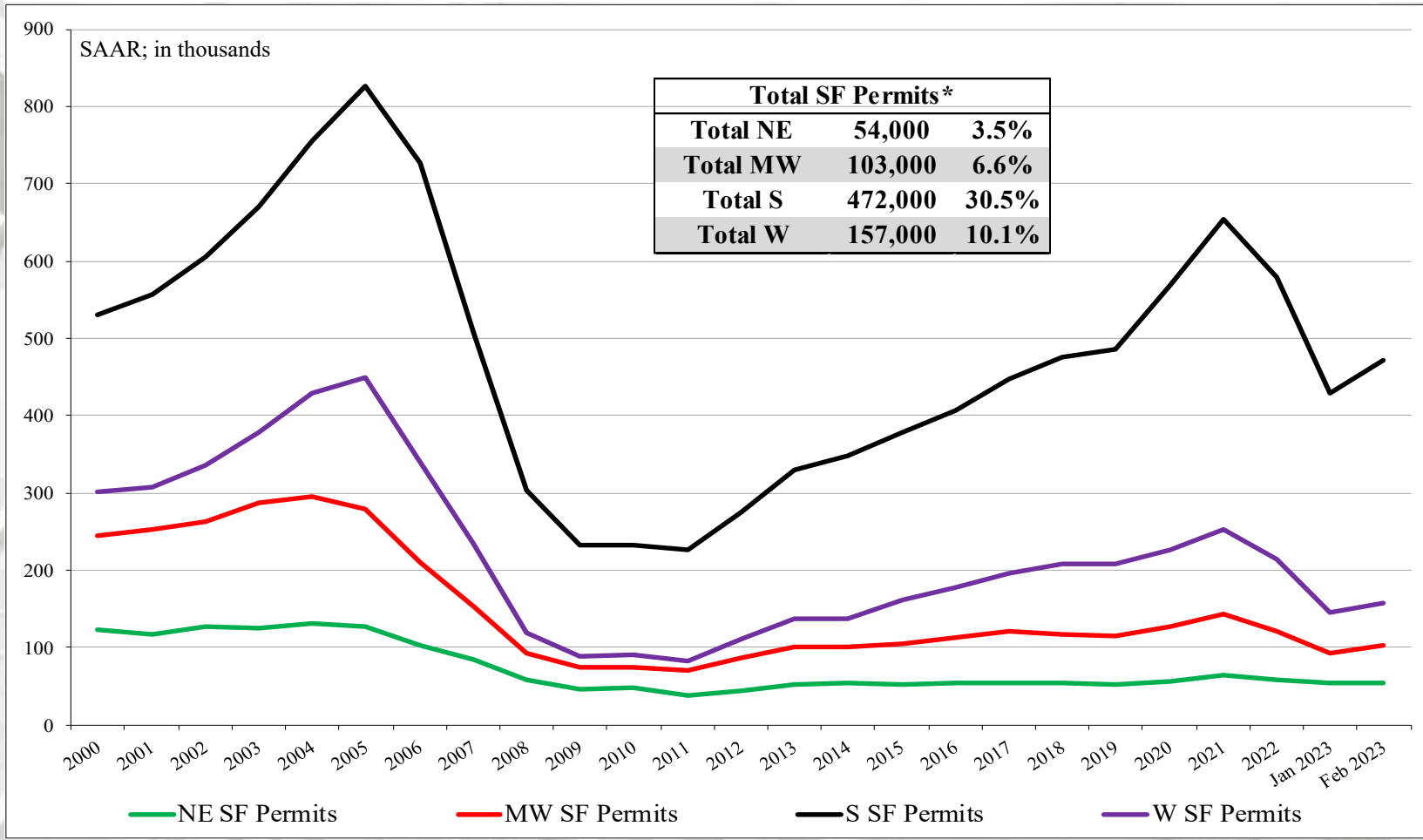
Total Housing Permits by Region



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

* Percentage of total permits.

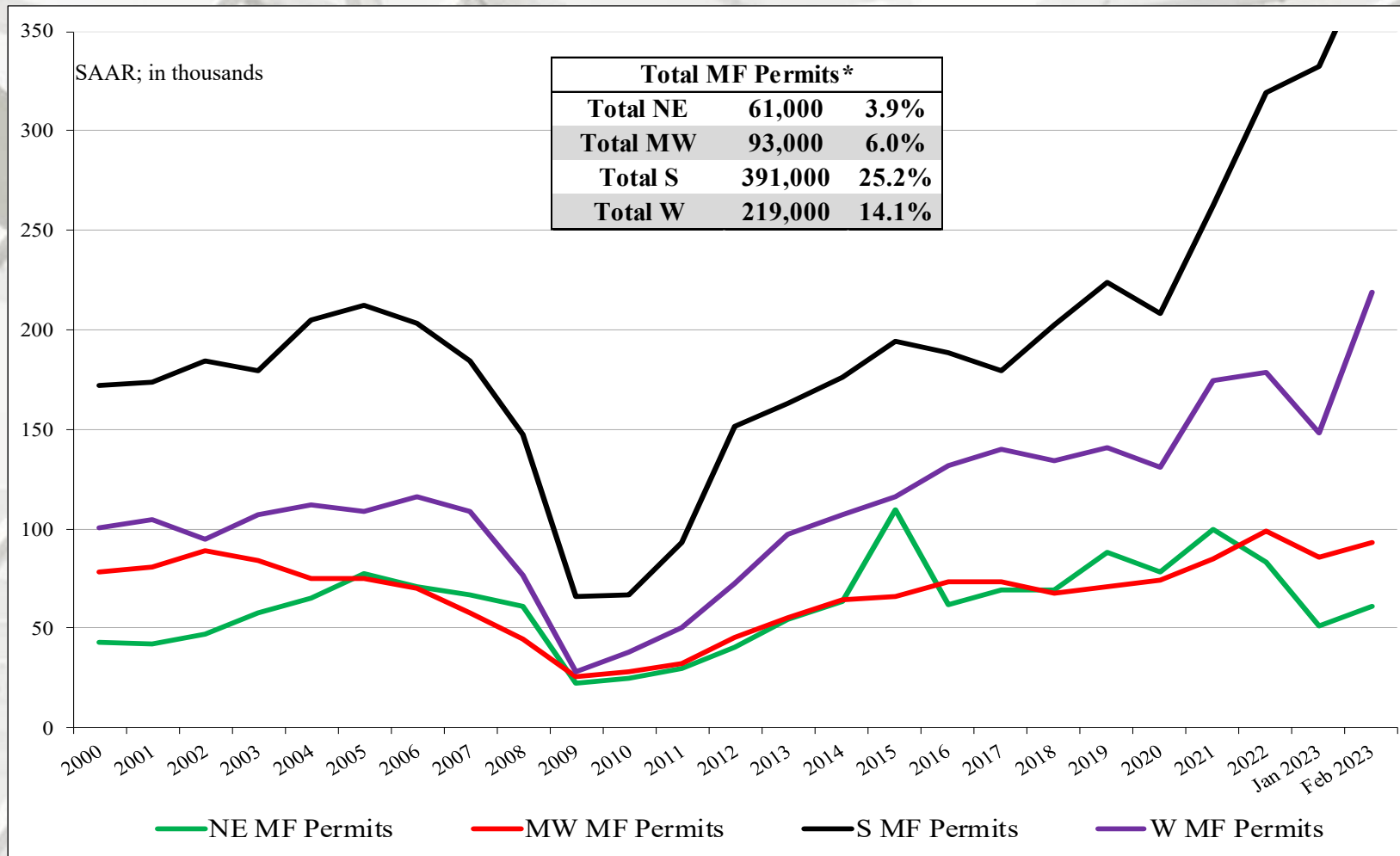
SF Housing Permits by Region



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.

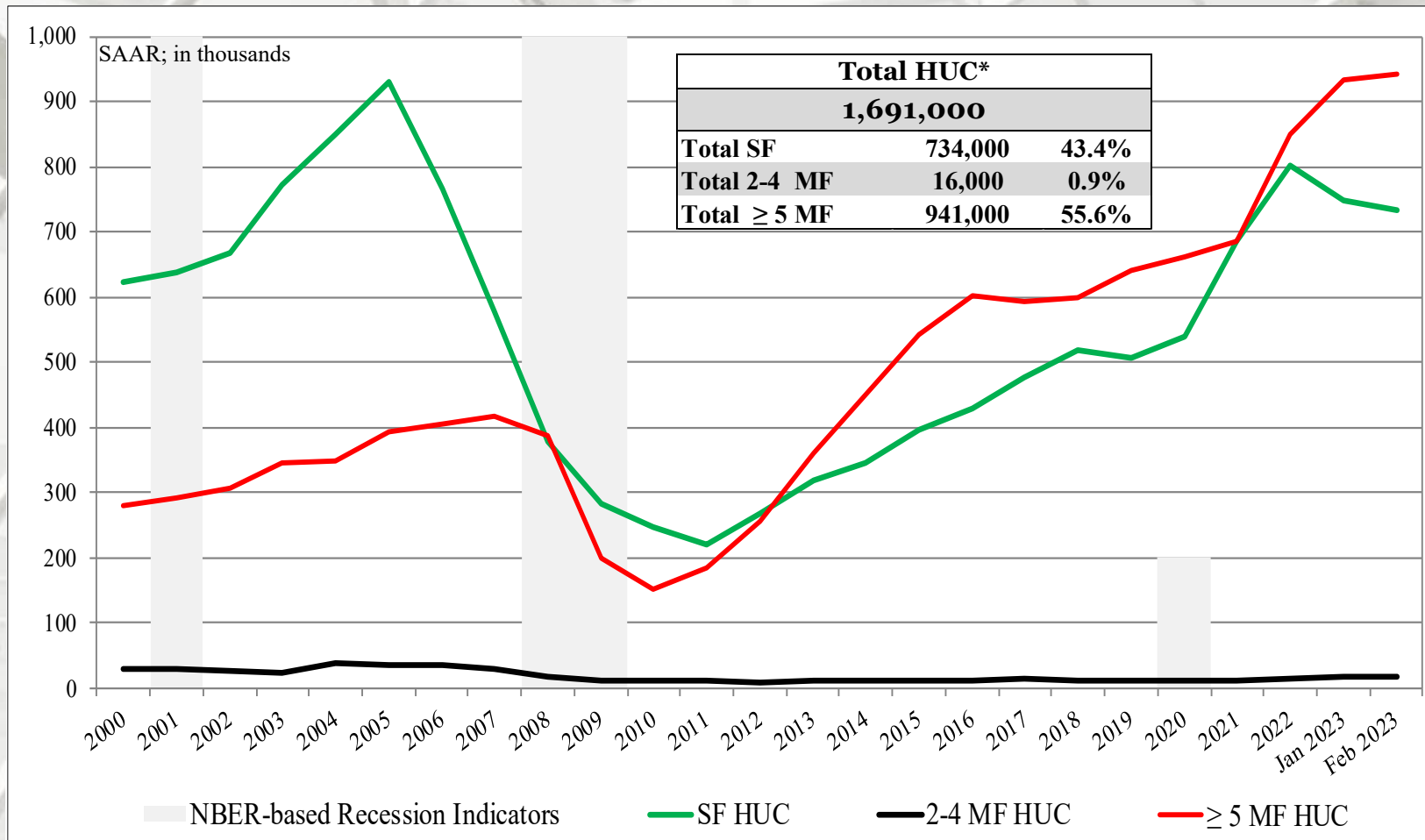
New Housing Under Construction (HUC)

	Total HUC*	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
February	1,691,000	734,000	16,000	941,000
January	1,695,000	747,000	16,000	932,000
2022	1,582,000	798,000	15,000	769,000
M/M change	-0.2%	-1.7%	0.0%	1.0%
Y/Y change	6.9%	-8.0%	6.7%	22.4%

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

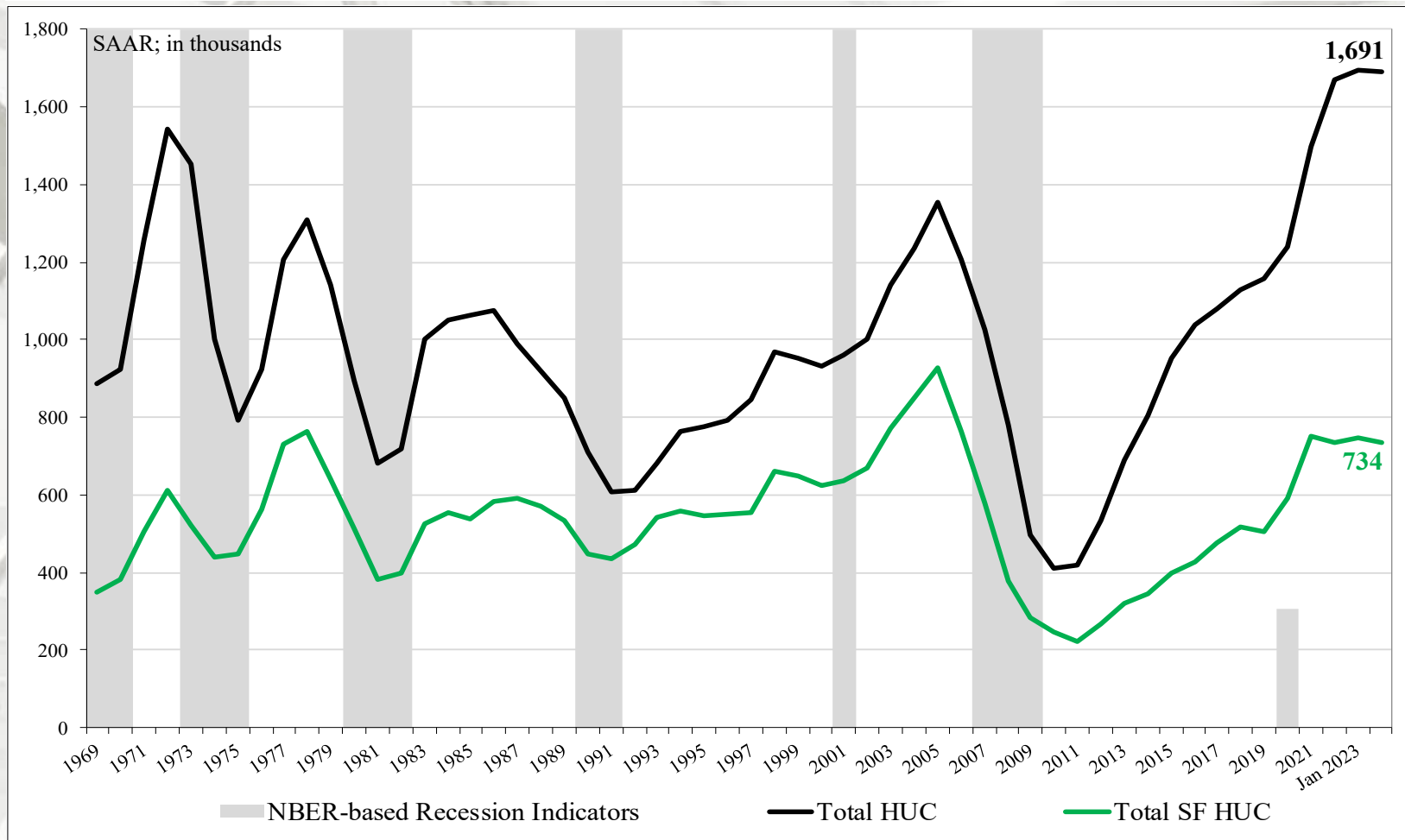
** US DOC does not report 2-4 multi-family units under construction directly; this is an estimation
 ((Total under construction – (SF + 5-unit MF))).

Total Housing Under Construction



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 February total housing units under construction (HUC) were 1,691,000 units, greater than the February 1973 total of 1,628,000 units. February's SF HUC reading, 734,000 units, which was substantially less than reported for February 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**
February	218,000	67,000	151,000
January	219,000	67,000	152,000
2022	201,000	61,000	140,000
M/M change	-0.5%	0.0%	-0.7%
Y/Y change	8.5%	9.8%	7.9%
	MW Total	MW SF	MW MF
February	217,000	100,000	117,000
January	213,000	100,000	113,000
2022	206,000	111,000	95,000
M/M change	1.9%	0.0%	3.5%
Y/Y change	5.3%	-9.9%	23.2%

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).

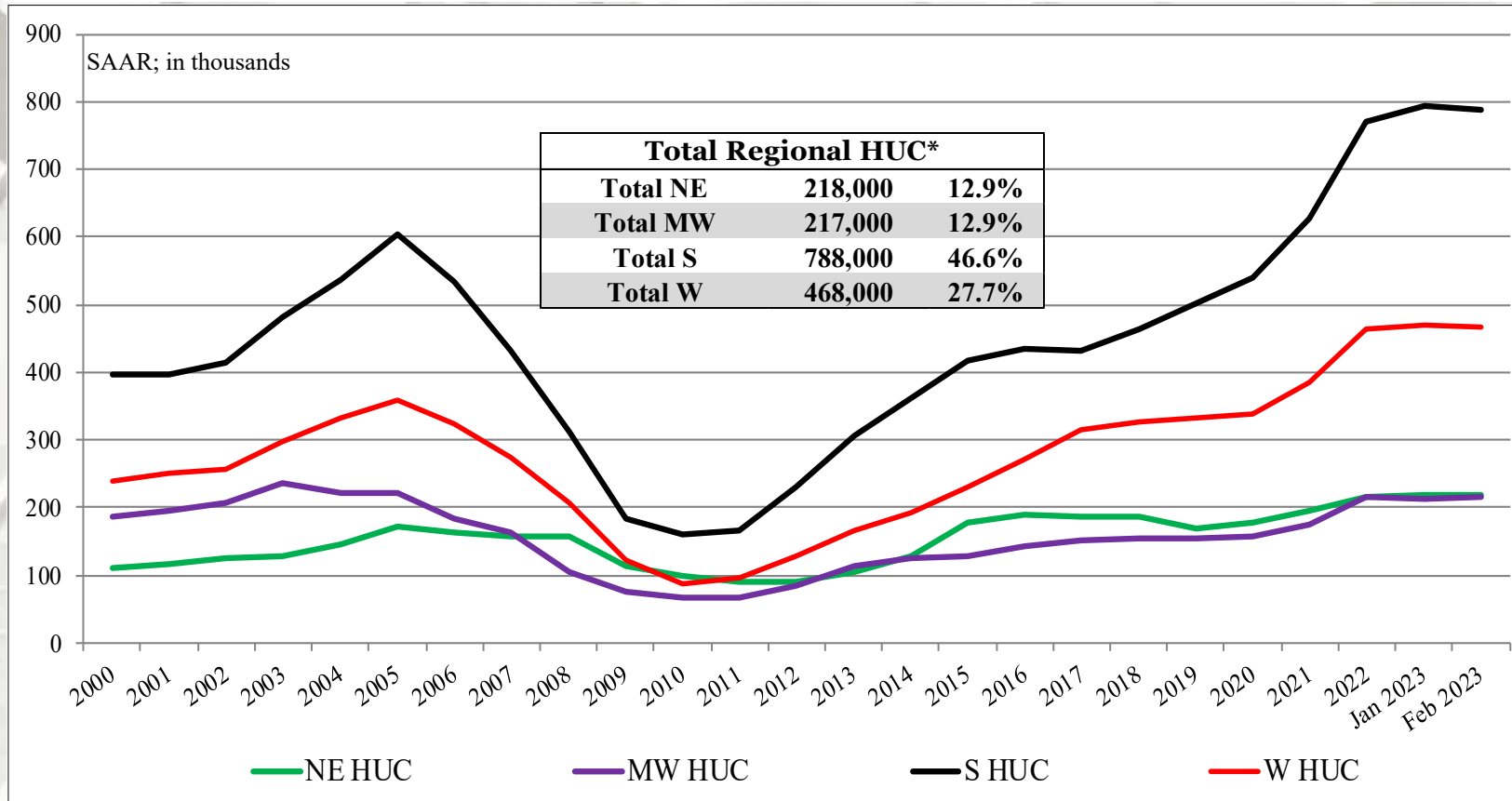
New Housing Under Construction by Region

	S Total	S SF	S MF**
February	788,000	388,000	400,000
January	794,000	397,000	397,000
2022	728,000	418,000	310,000
M/M change	-0.8%	-2.3%	0.8%
Y/Y change	8.2%	-7.2%	29.0%
	W Total	W SF	W MF
February	468,000	179,000	289,000
January	469,000	183,000	286,000
2022	447,000	208,000	239,000
M/M change	-0.2%	-2.2%	1.0%
Y/Y change	4.7%	-13.9%	20.9%

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

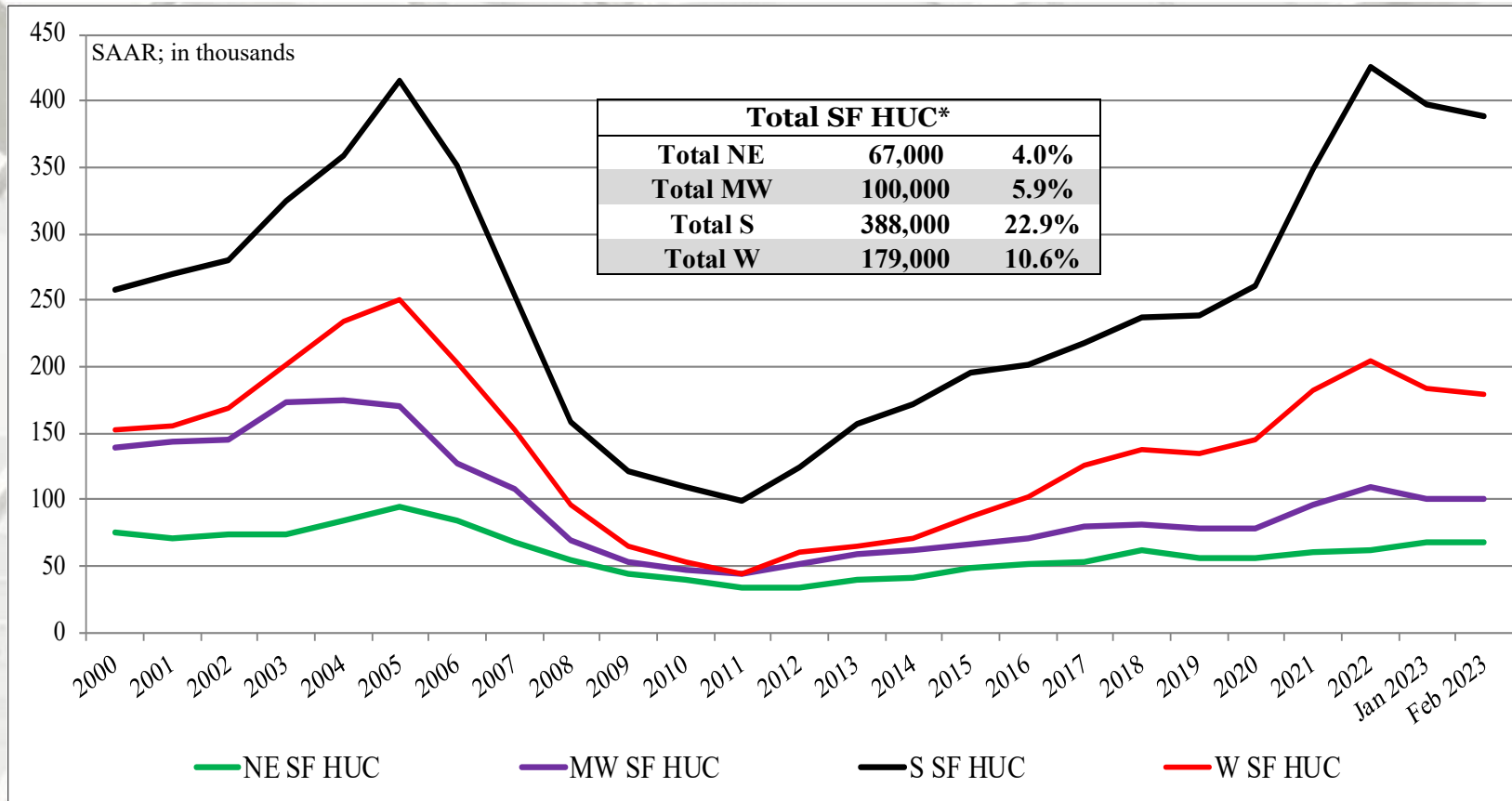


NE = Northeast, MW = Midwest, S = South, W = West

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

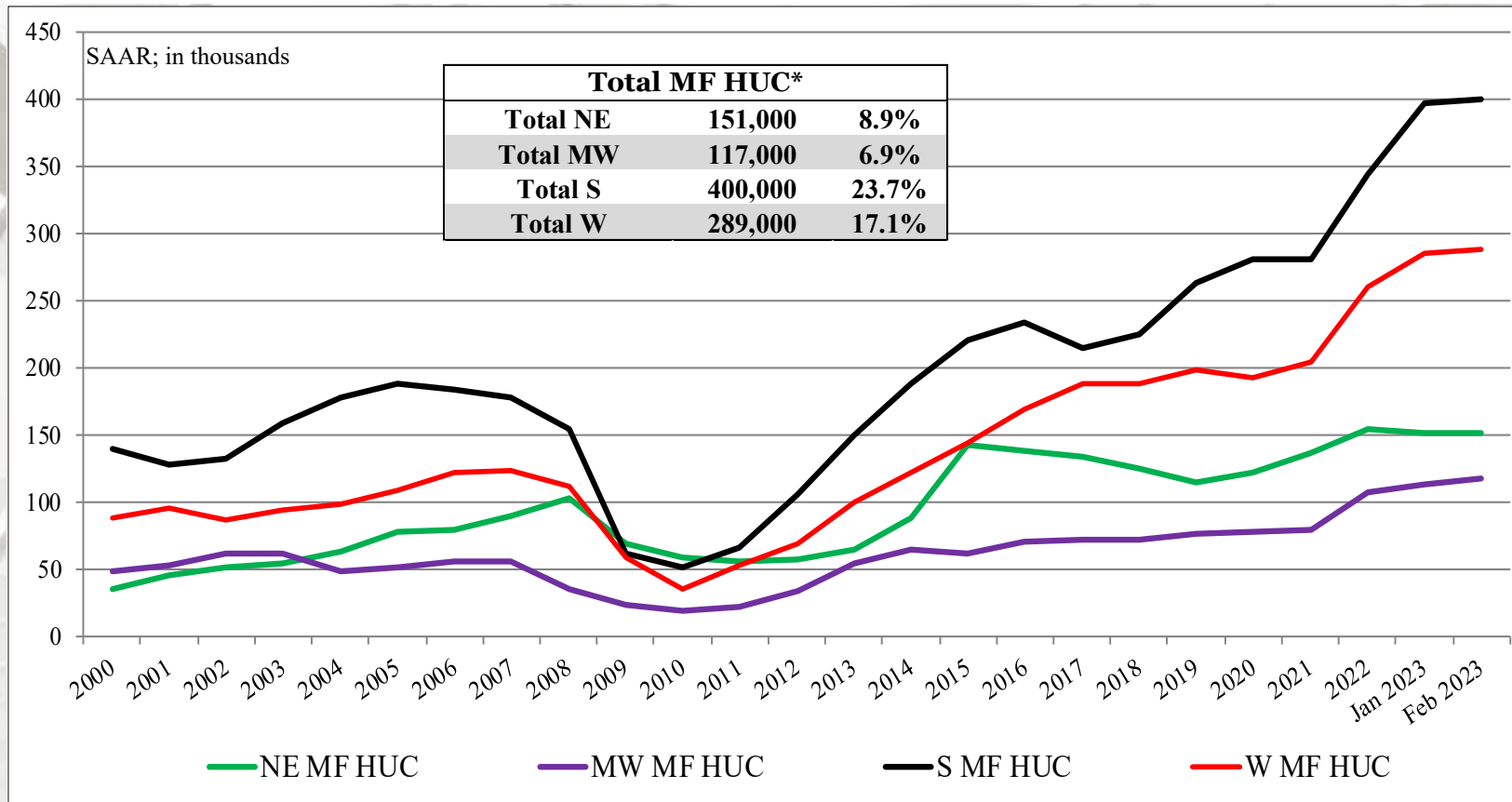


NE = Northeast, MW = Midwest, S = South, W = West.

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.

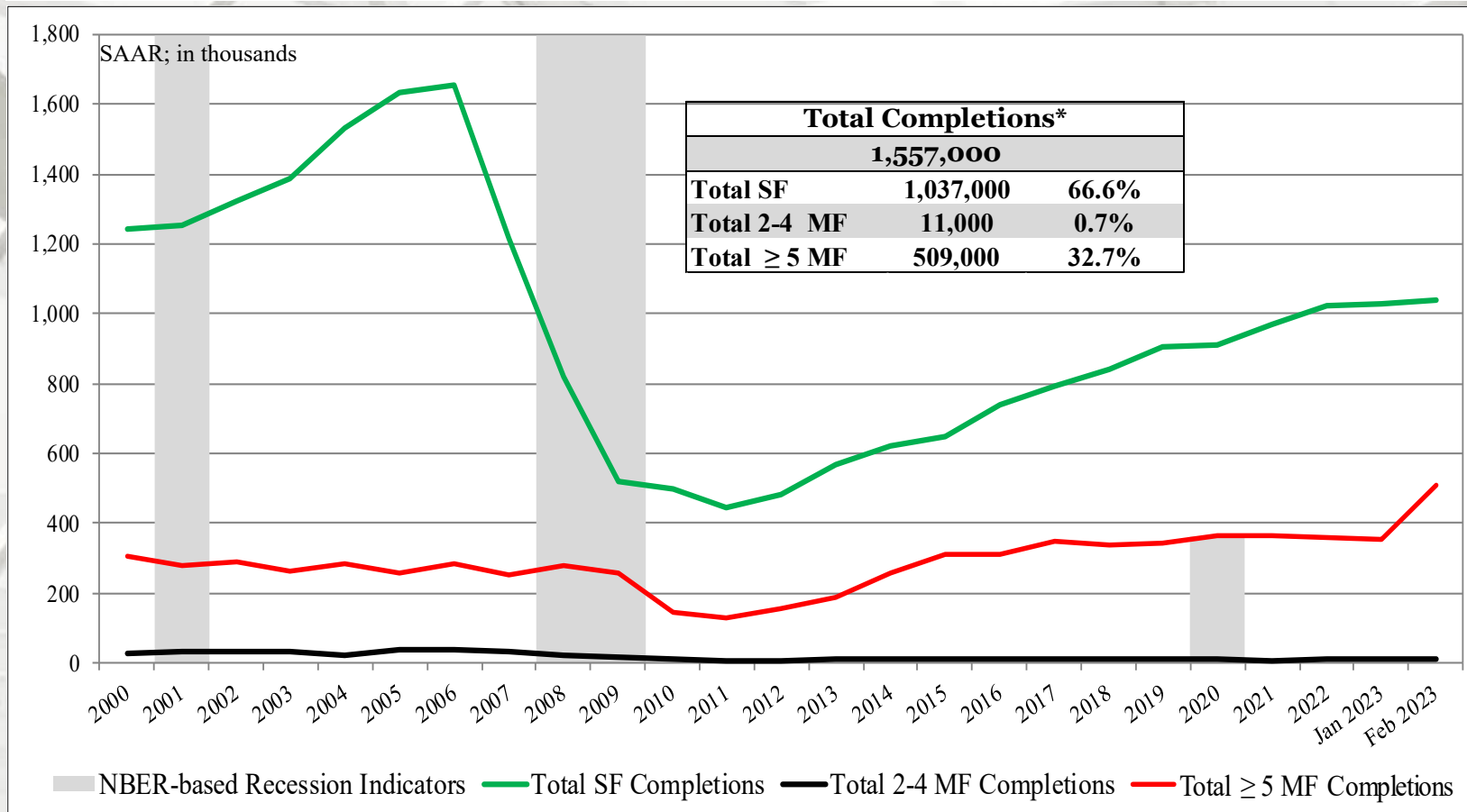
New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit**	MF ≥ 5 unit Completions
February	1,557,000	1,037,000	11,000	509,000
January	1,388,000	1,027,000	9,000	352,000
2022	1,380,000	1,076,000	8,000	296,000
M/M change	12.2%	1.0%	22.2%	44.6%
Y/Y change	12.8%	-3.6%	37.5%	72.0%

* 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**
February	99,000	67,000	32,000
January	106,000	59,000	47,000
2022	133,000	85,000	48,000
M/M change	-6.6%	13.6%	-31.9%
Y/Y change	-25.6%	-21.2%	-33.3%
	MW Total	MW SF	MW MF
February	184,000	117,000	67,000
January	186,000	137,000	49,000
2022	196,000	142,000	54,000
M/M change	-1.1%	-14.6%	36.7%
Y/Y change	-6.1%	-17.6%	24.1%

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

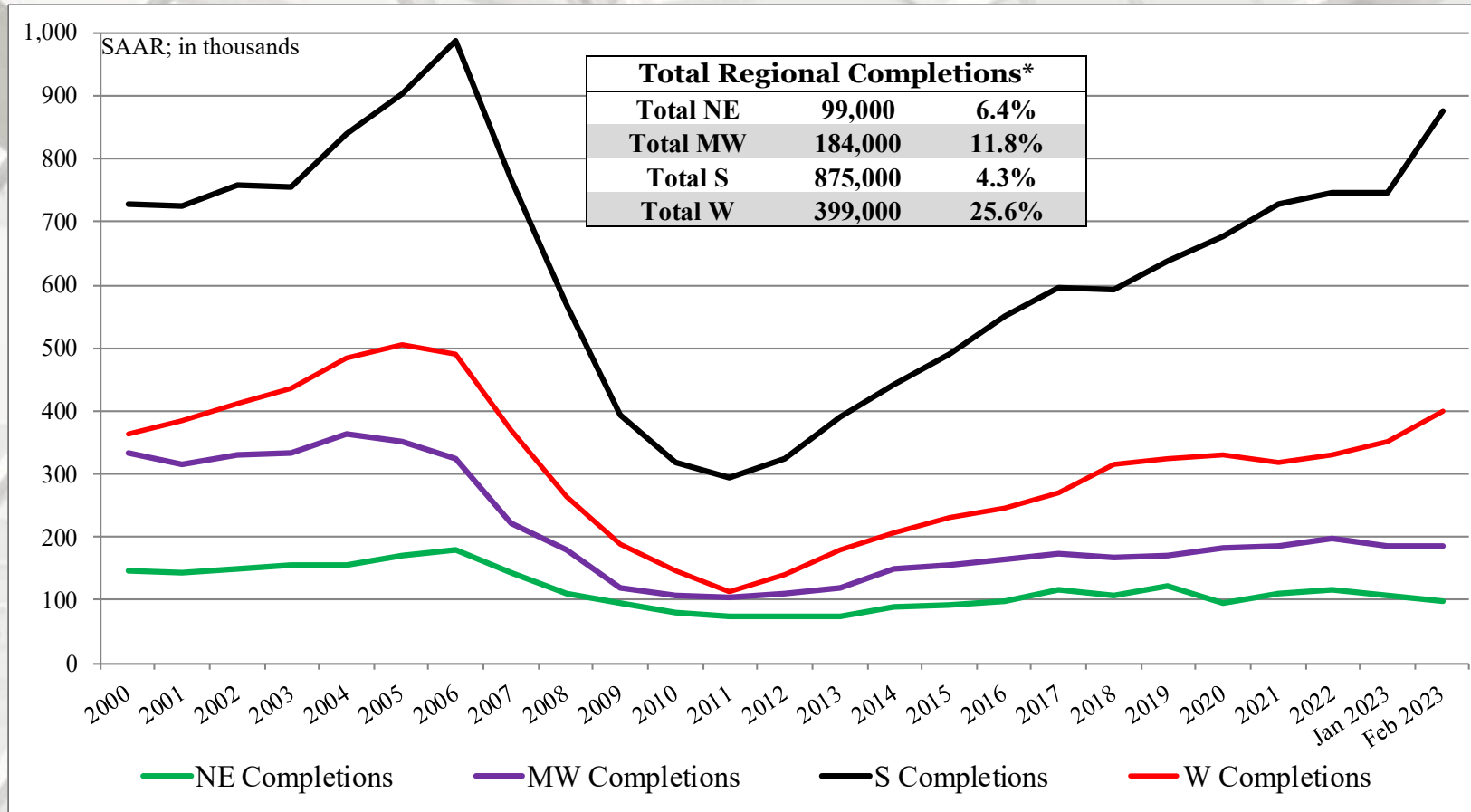
	S Total	S SF	S MF**
February	875,000	621,000	254,000
January	745,000	591,000	154,000
2022	759,000	626,000	133,000
M/M change	17.4%	5.1%	64.9%
Y/Y change	15.3%	-0.8%	91.0%
	W Total	W SF	W MF
February	399,000	232,000	167,000
January	351,000	240,000	111,000
2022	292,000	223,000	69,000
M/M change	13.7%	-3.3%	50.5%
Y/Y change	36.6%	4.0%	142.0%

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

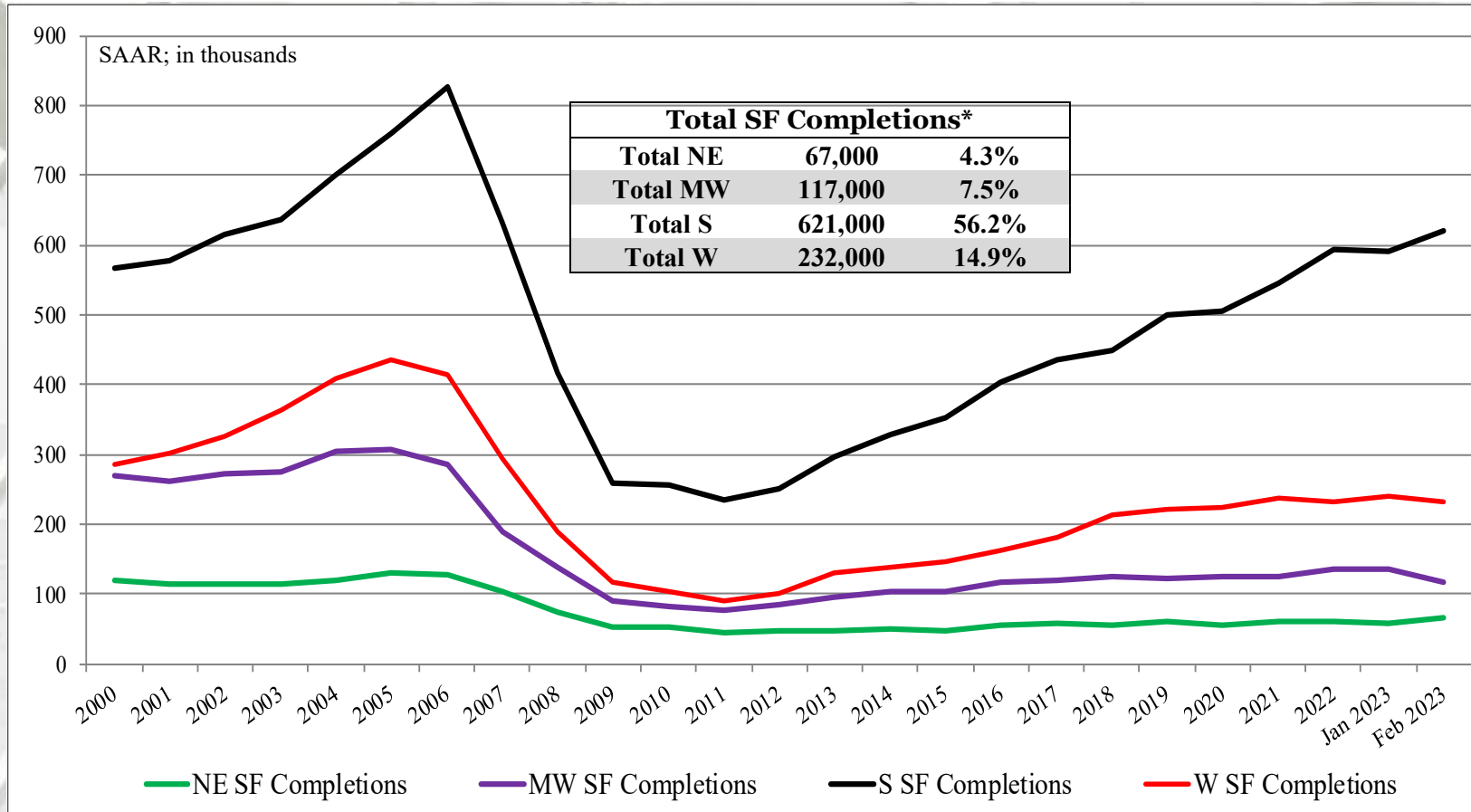
Total Housing Completions by Region



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

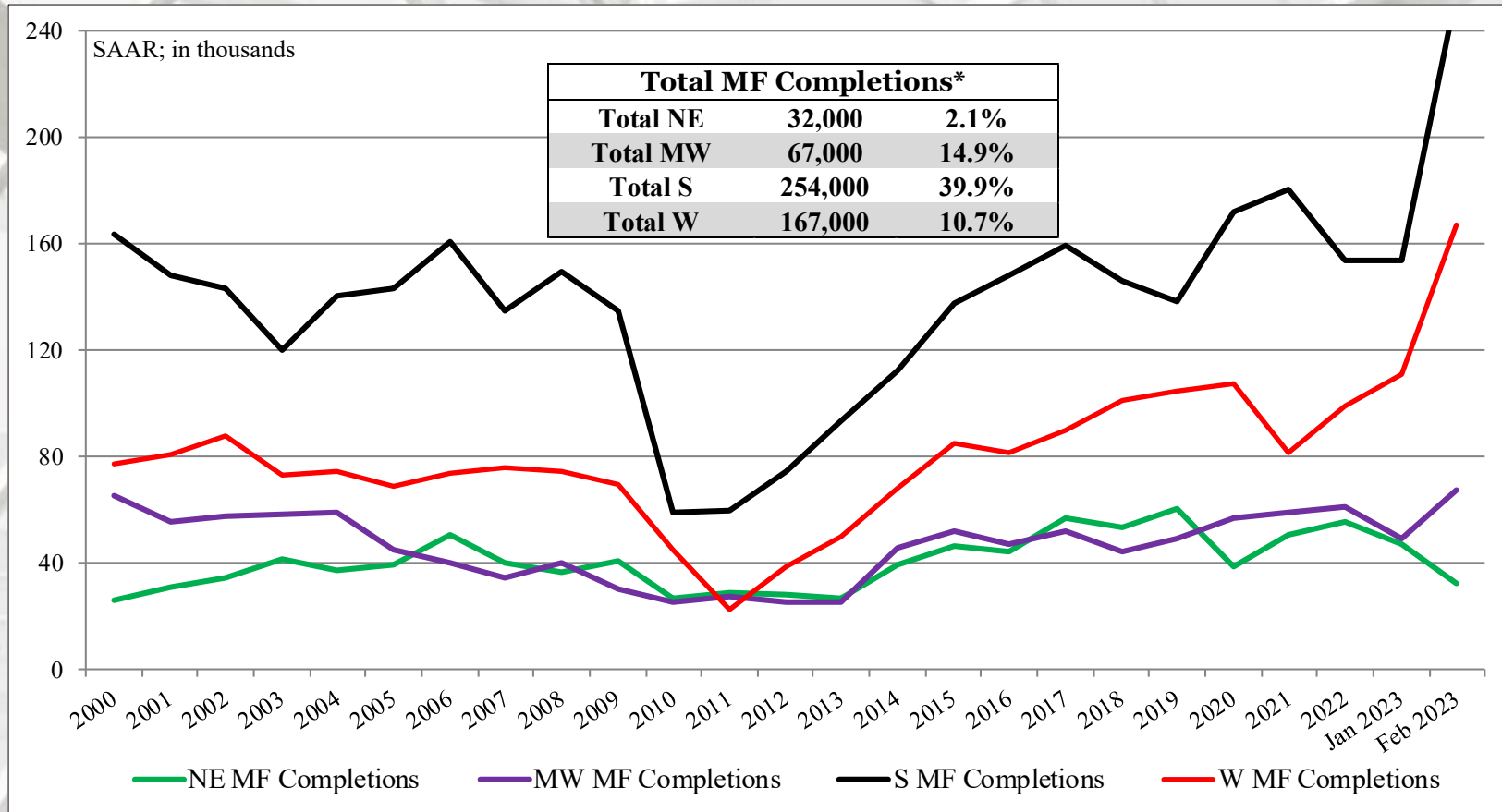


NE = Northeast, MW = Midwest, S = South, W = West

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

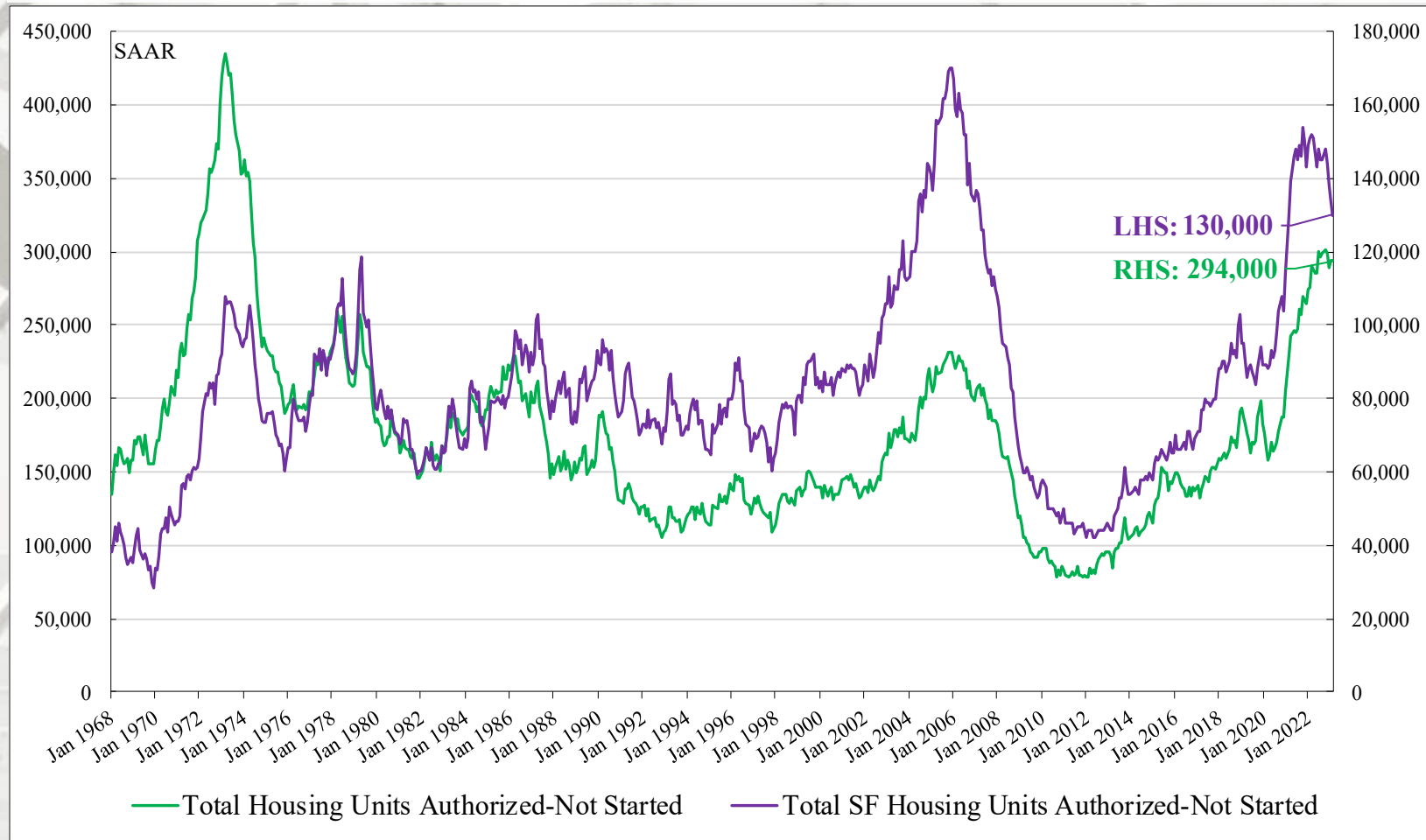


NE = Northeast, MW = Midwest, S = South, W = West

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

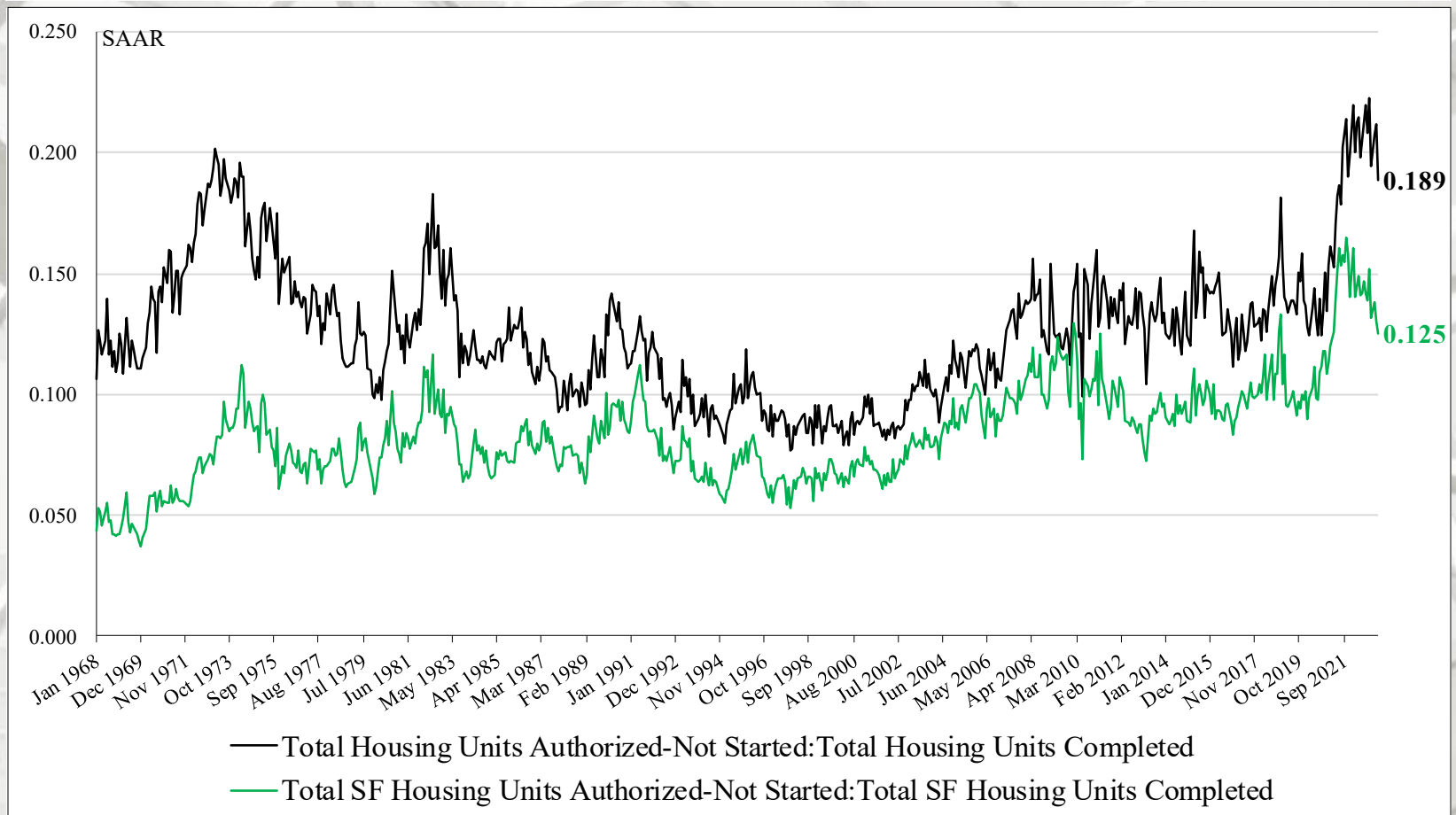


Authorized, Not Started vs. Housing Completions

Total authorized units “not” started was 294,000 in February, no change from January, and SF authorized units “not” started decreased to 130,000 in February.

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

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



Authorized, Not Started vs. Housing Completions

Total authorized units “not” started was 294,000 in February, no change from January, and SF authorized units “not” started decreased to 130,000 in February.

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

New Single-Family House Sales

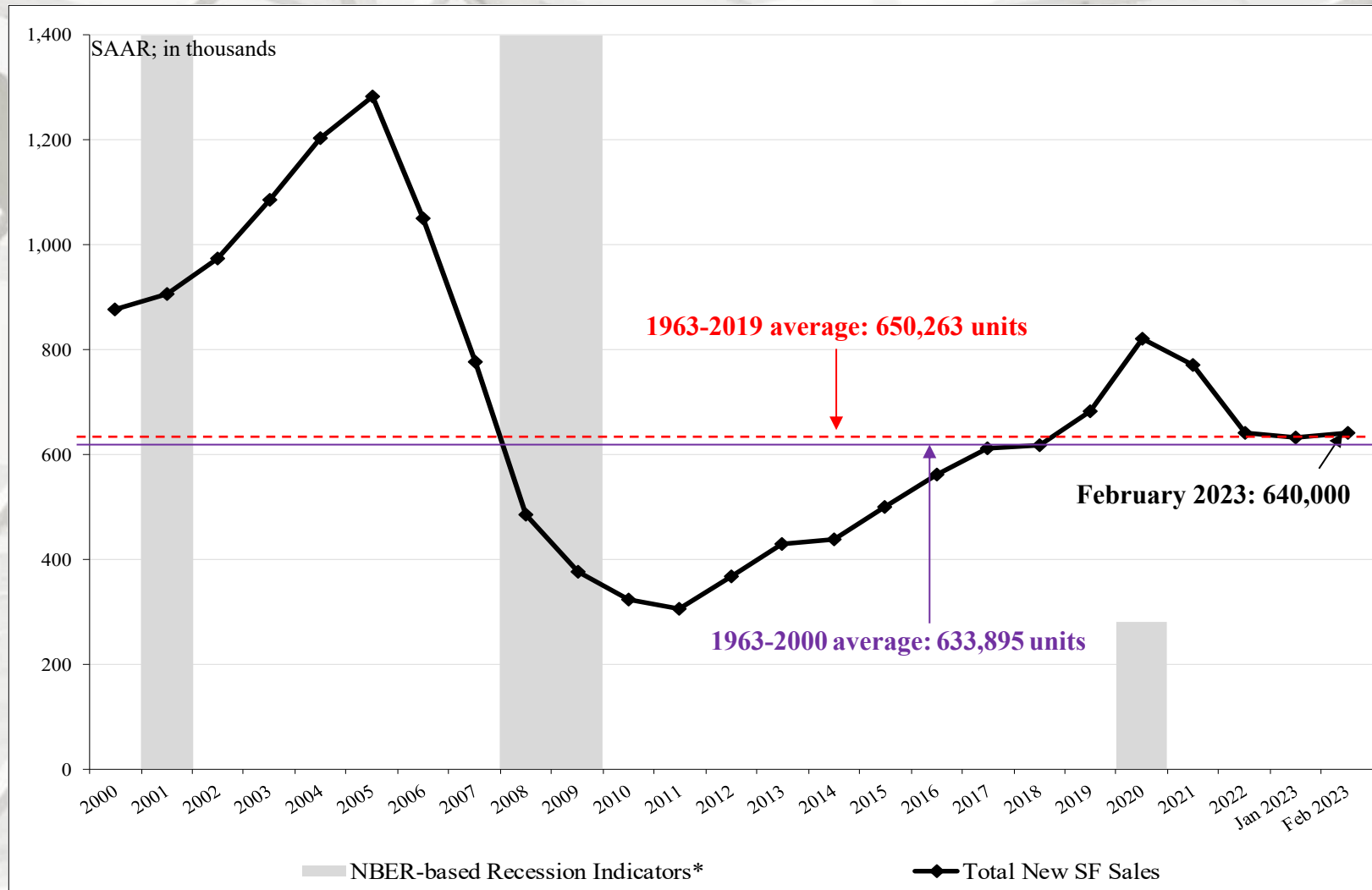
	New SF Sales*	Median Price	Mean Price	Month's Supply
February	640,000	\$438,200	\$498,700	8.2
January	633,000	\$426,500	\$479,800	8.3
2022	790,000	\$427,400	\$522,200	6.0
M/M change	1.1%	2.7%	3.9%	-1.2%
Y/Y change	-19.0%	2.5%	-4.5%	36.7%

* 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 645 m (range: 630 m to 660 m). The past three month's new SF sales data also were revised:

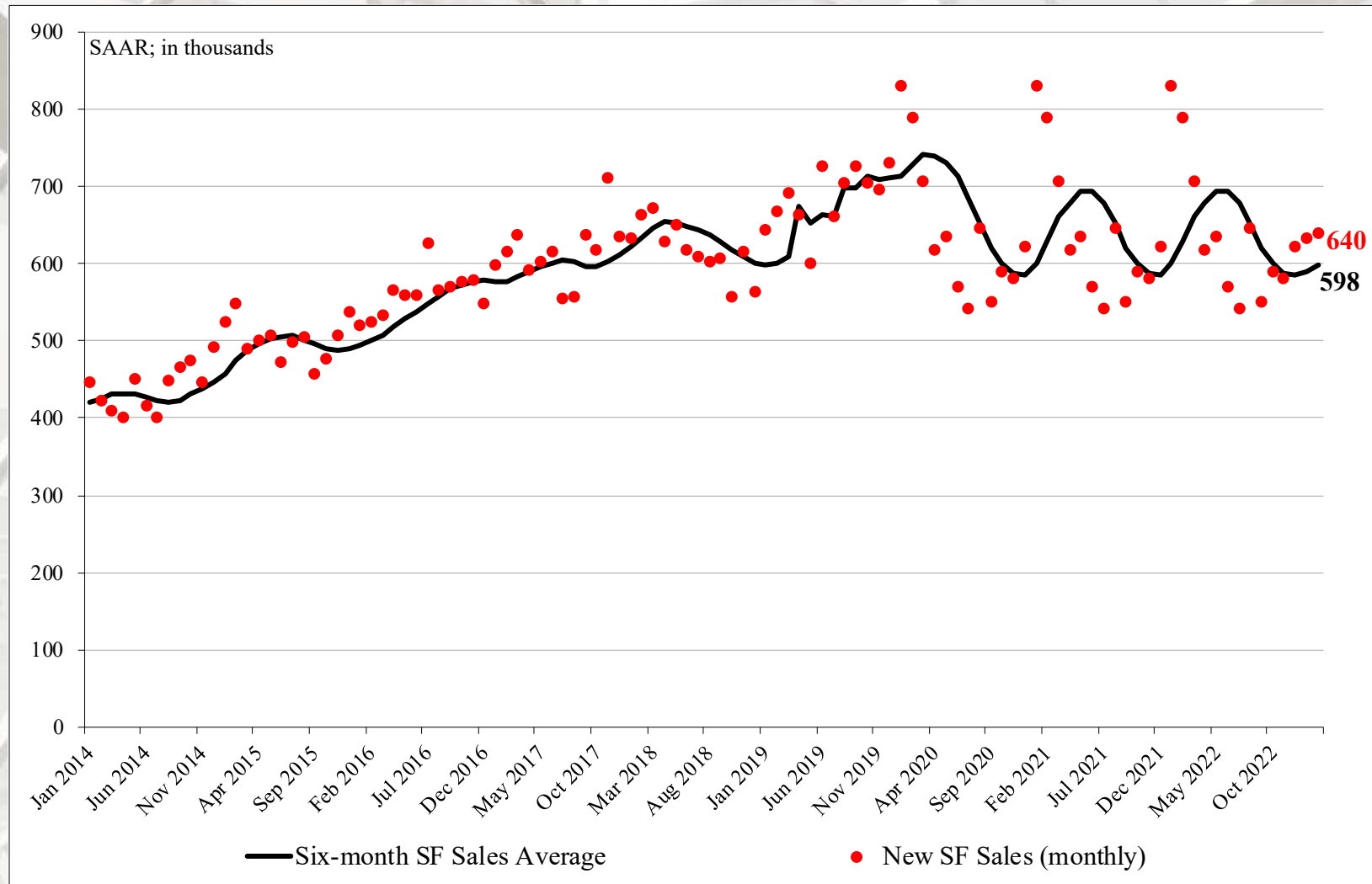
November initial: 640 m, revised to 582 m.
 December initial: 616 m, revised to 622 m.
 January initial: 670 m, revised to 633 m.

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			
February	21,000	71,000	415,000	133,000			
January	35,000	72,000	403,000	123,000			
2022	47,000	89,000	455,000	199,000			
M/M change	-40.0%	-1.4%	3.0%	8.1%			
Y/Y change	-55.3%	-20.2%	-8.8%	-33.2%			
	≤ \$150m	\$150 - \$199.9m	\$200 - 299.9m	\$300 - \$399.9m	\$400 - \$499.9m	\$500 - \$749.9m	≥ \$750m
February ^{1,2,3,4}	0	0	7,000	15,000	12,000	18,000	6,000
January	0	1,000	8,000	19,000	13,000	13,000	6,000
2022	0	0	11,000	21,000	14,000	17,000	8,000
M/M change	0.0%	0.0%	-12.5%	-21.1%	-7.7%	38.5%	0.0%
Y/Y change	0.0%	0.0%	-36.4%	-28.6%	-14.3%	5.9%	-25.0%
% of New SF sales	0.0%	0.0%	11.9%	25.4%	20.3%	30.5%	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 February not add to total because of rounding.

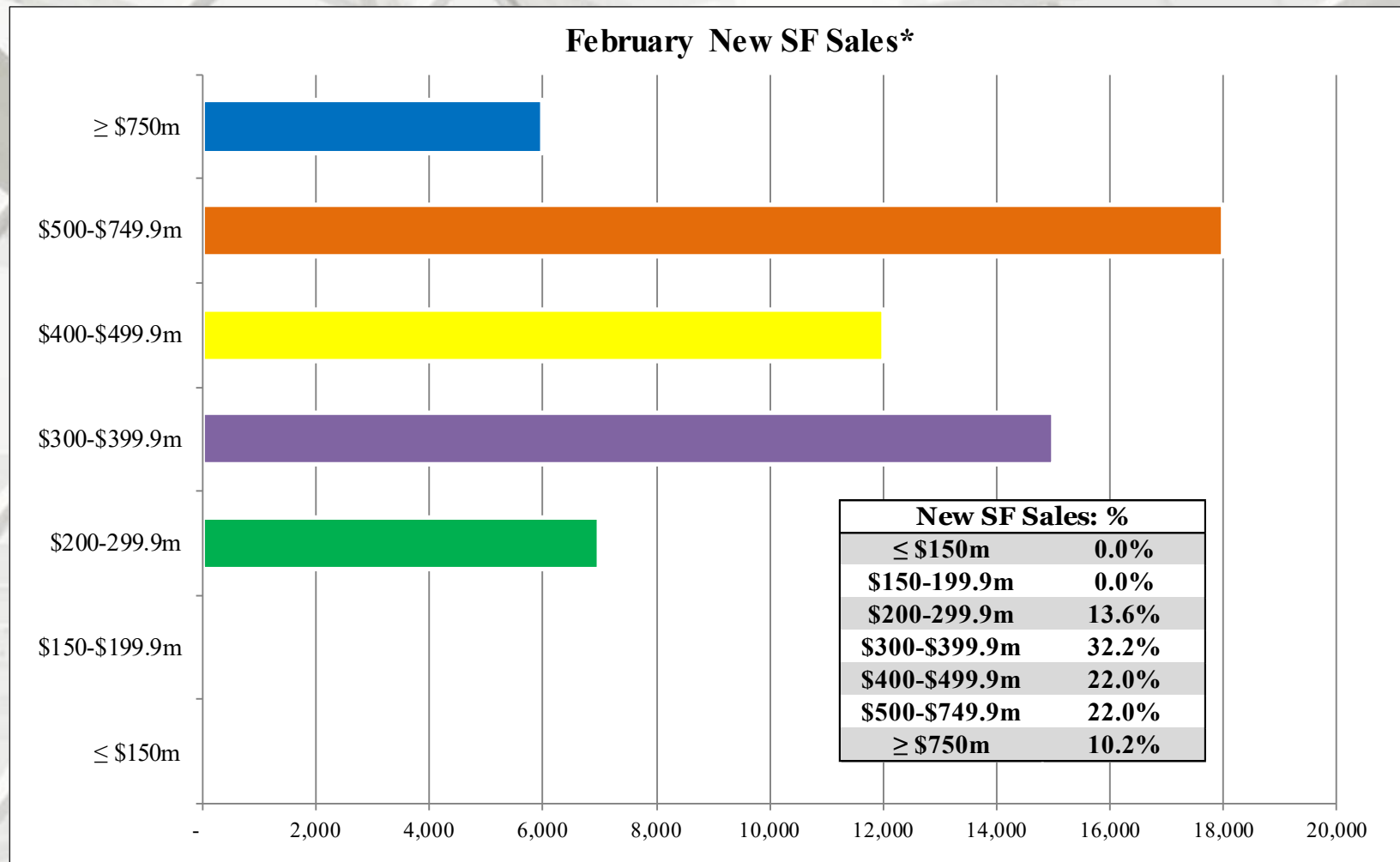
⁴ Housing prices are adjusted at irregular intervals.

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

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

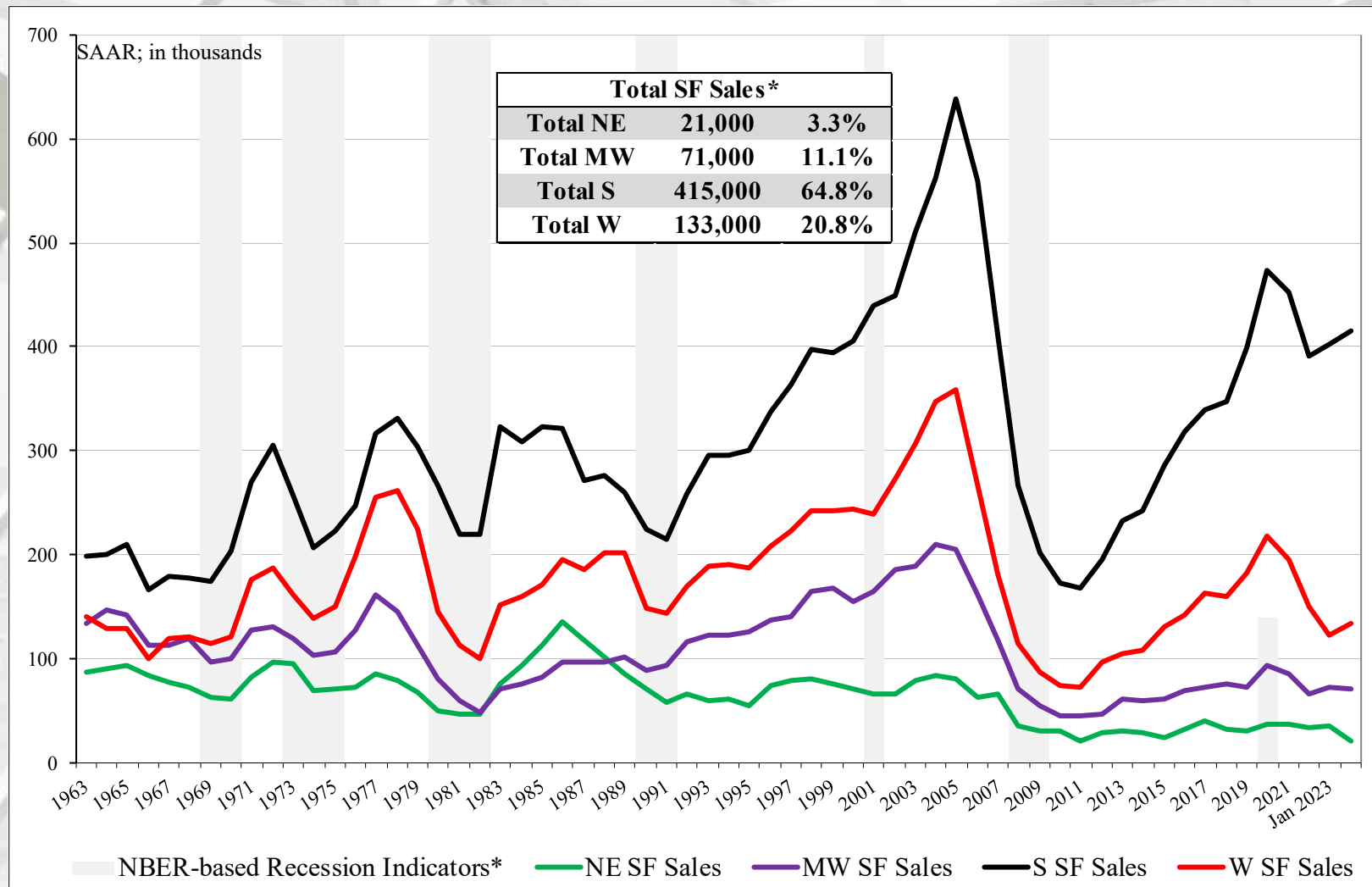
⁴ https://www.census.gov/construction/cpi/pdf/descpi_sold.pdf

New SF House Sales



* Total new sales by price category and percent.

New SF House Sales by Region

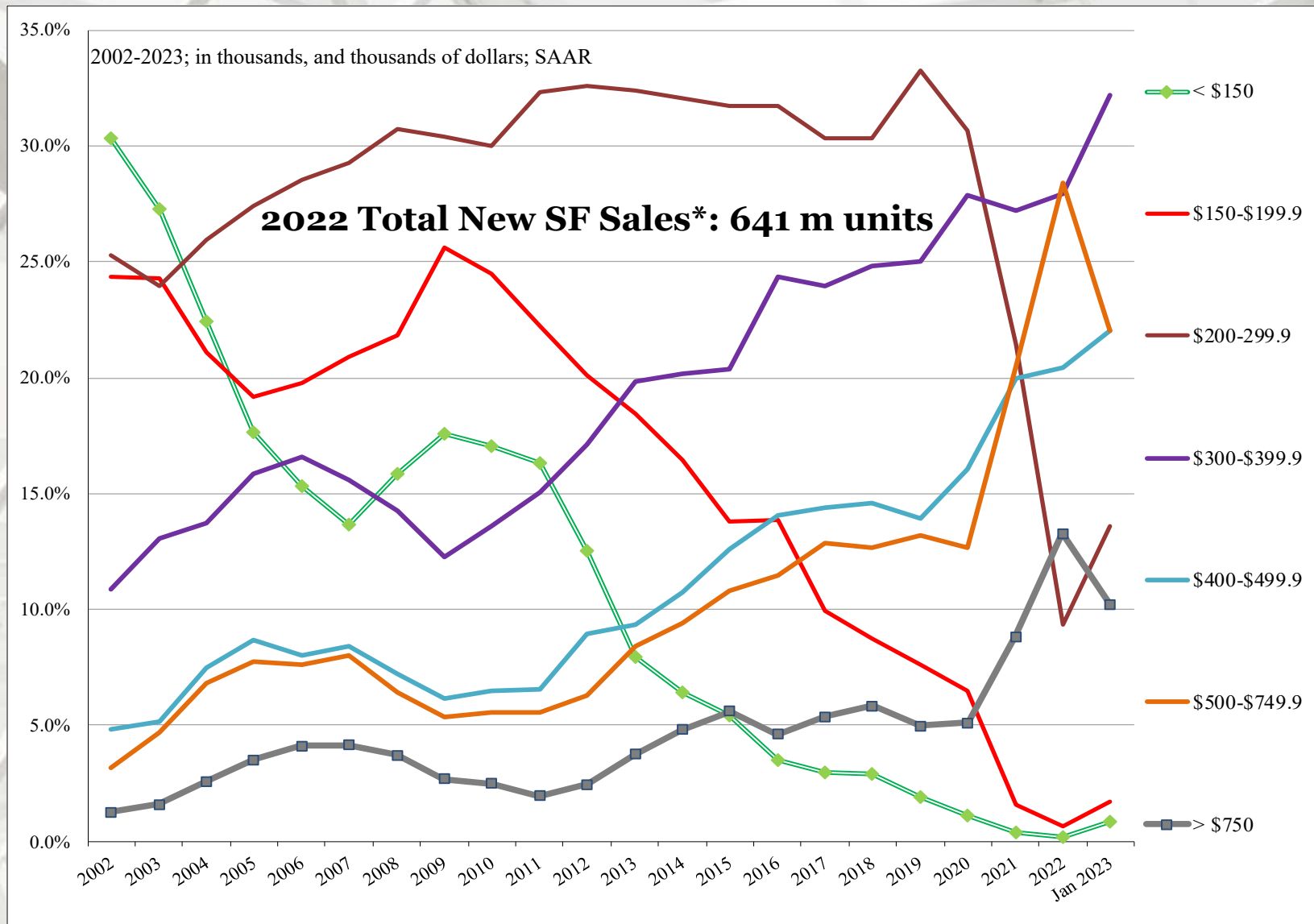


NE = Northeast; MW = Midwest; S = South; W = West

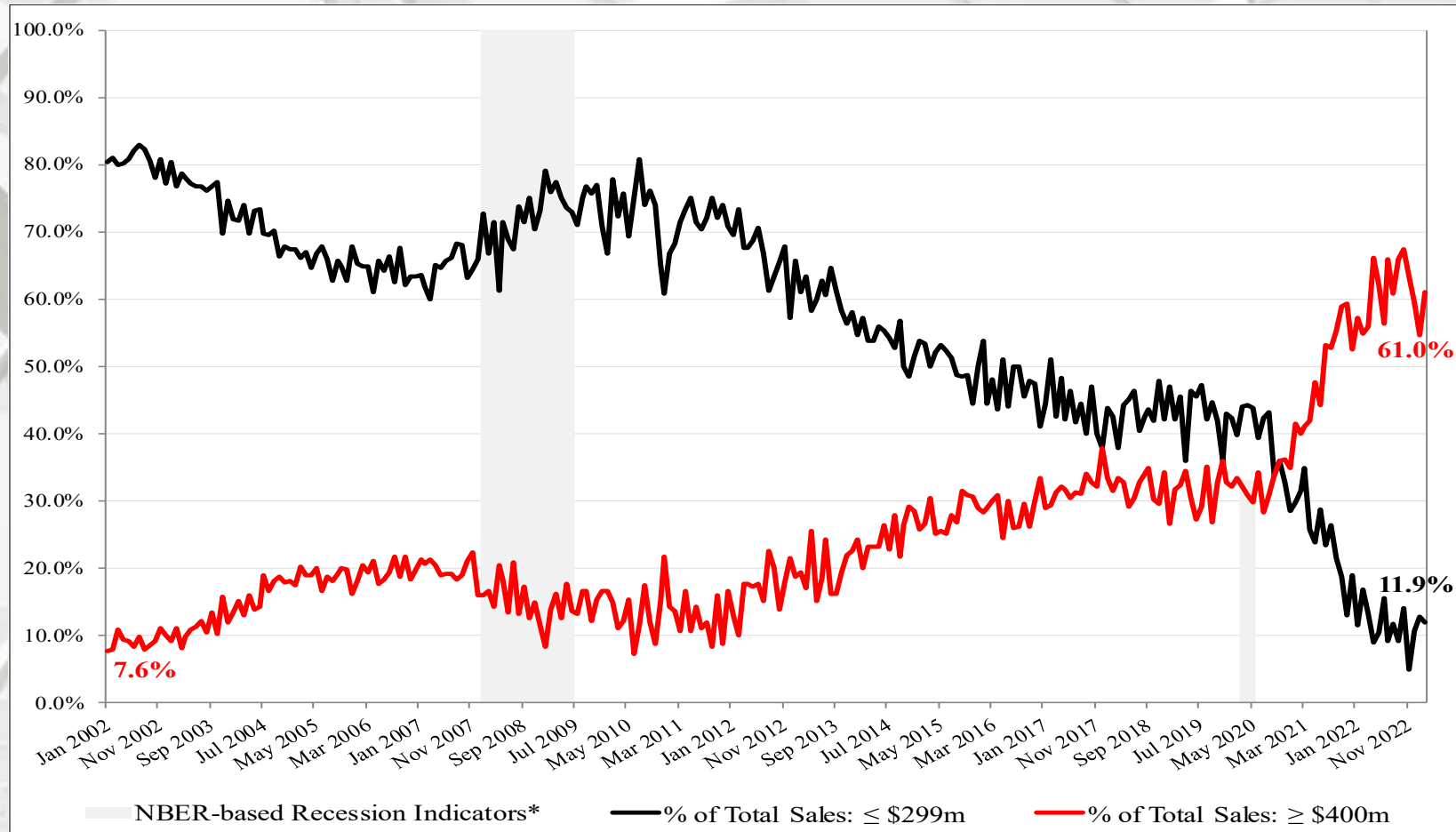
* Percentage of total new sales.

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



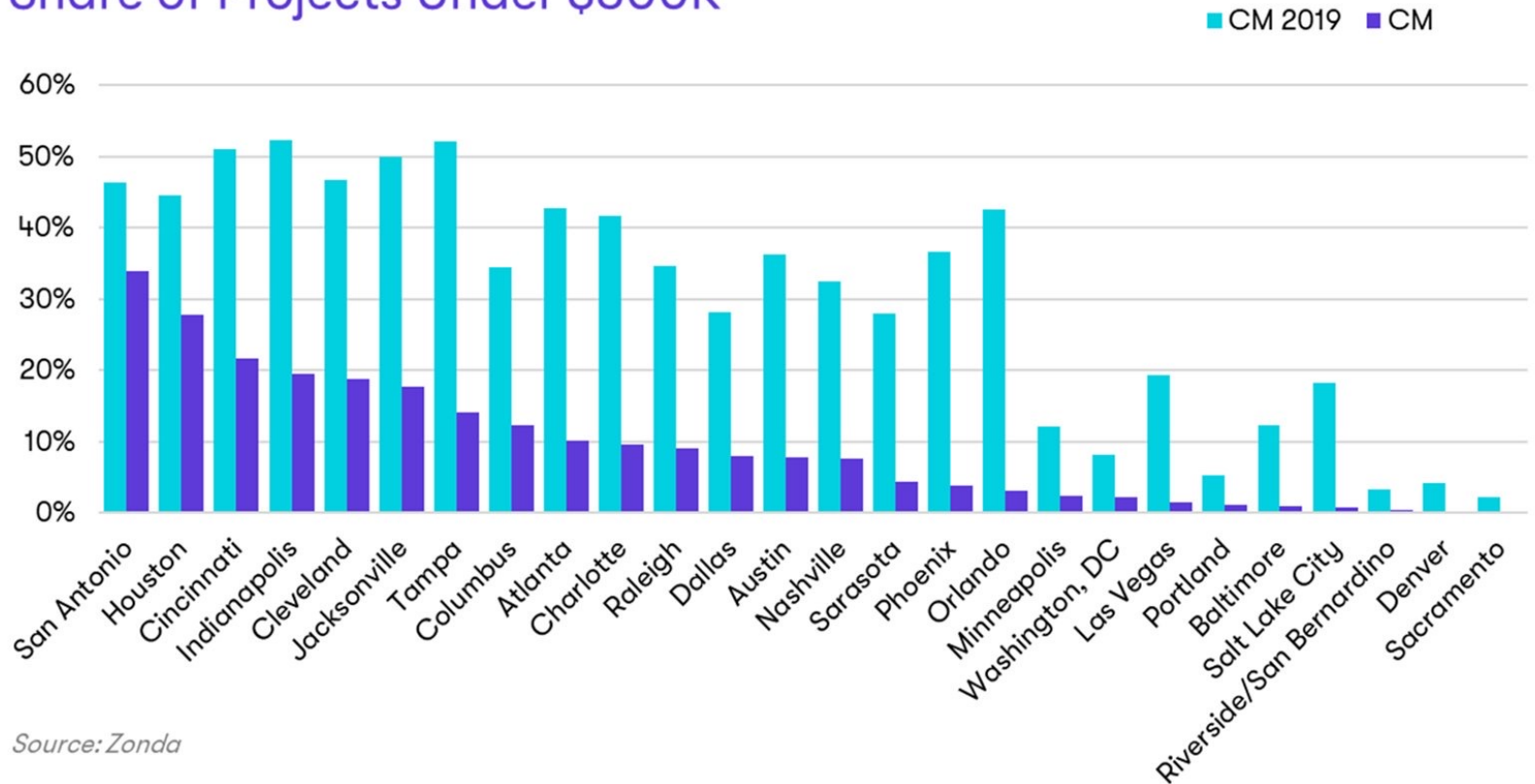
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

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

Share of Projects Under \$300K

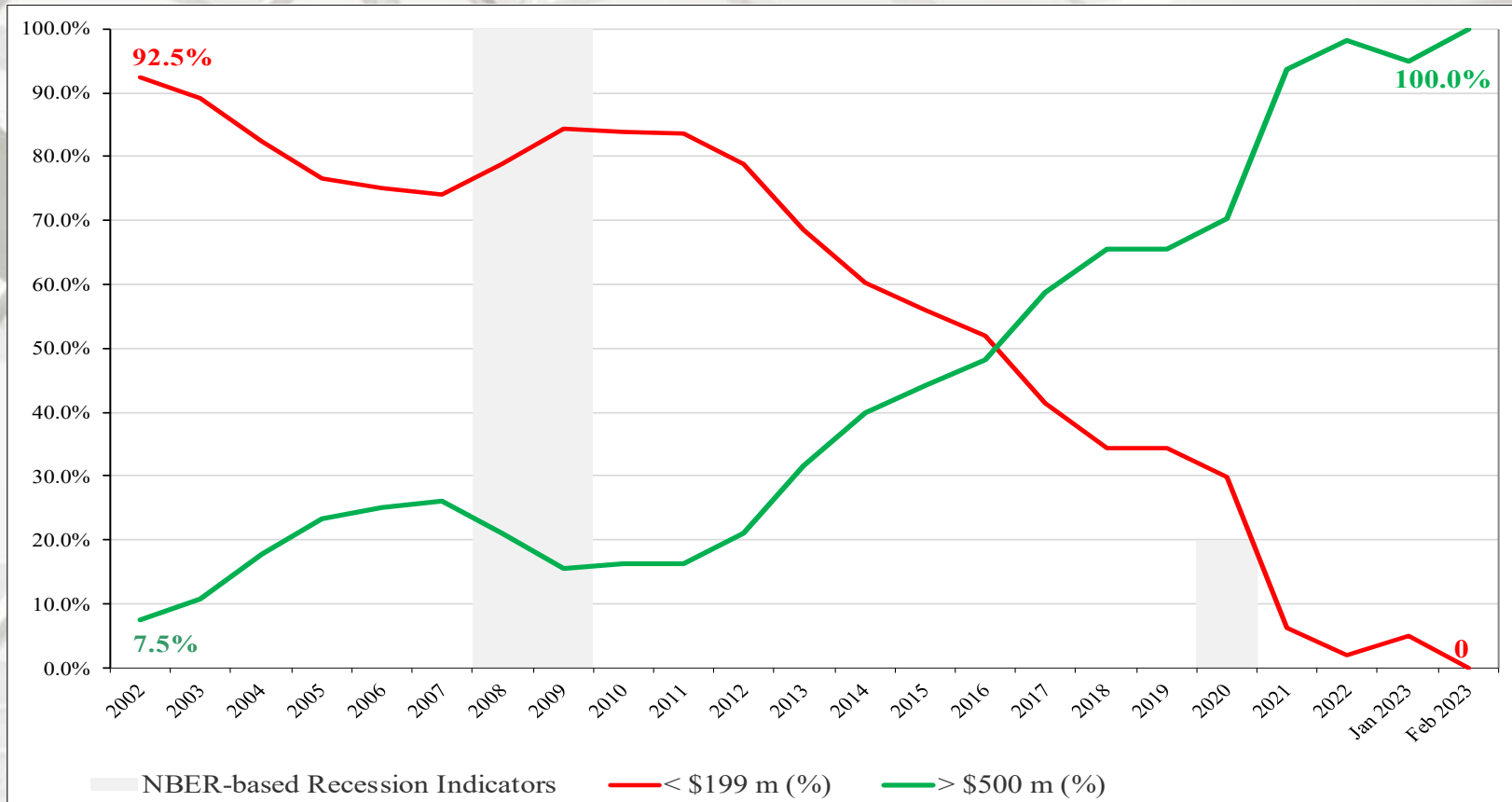


Share of Projects Less Than \$300,000

“This is one of the saddest new home charts.” – Ali Wolf, Chief Economist, Zonda

CM = current month

New SF House Sales

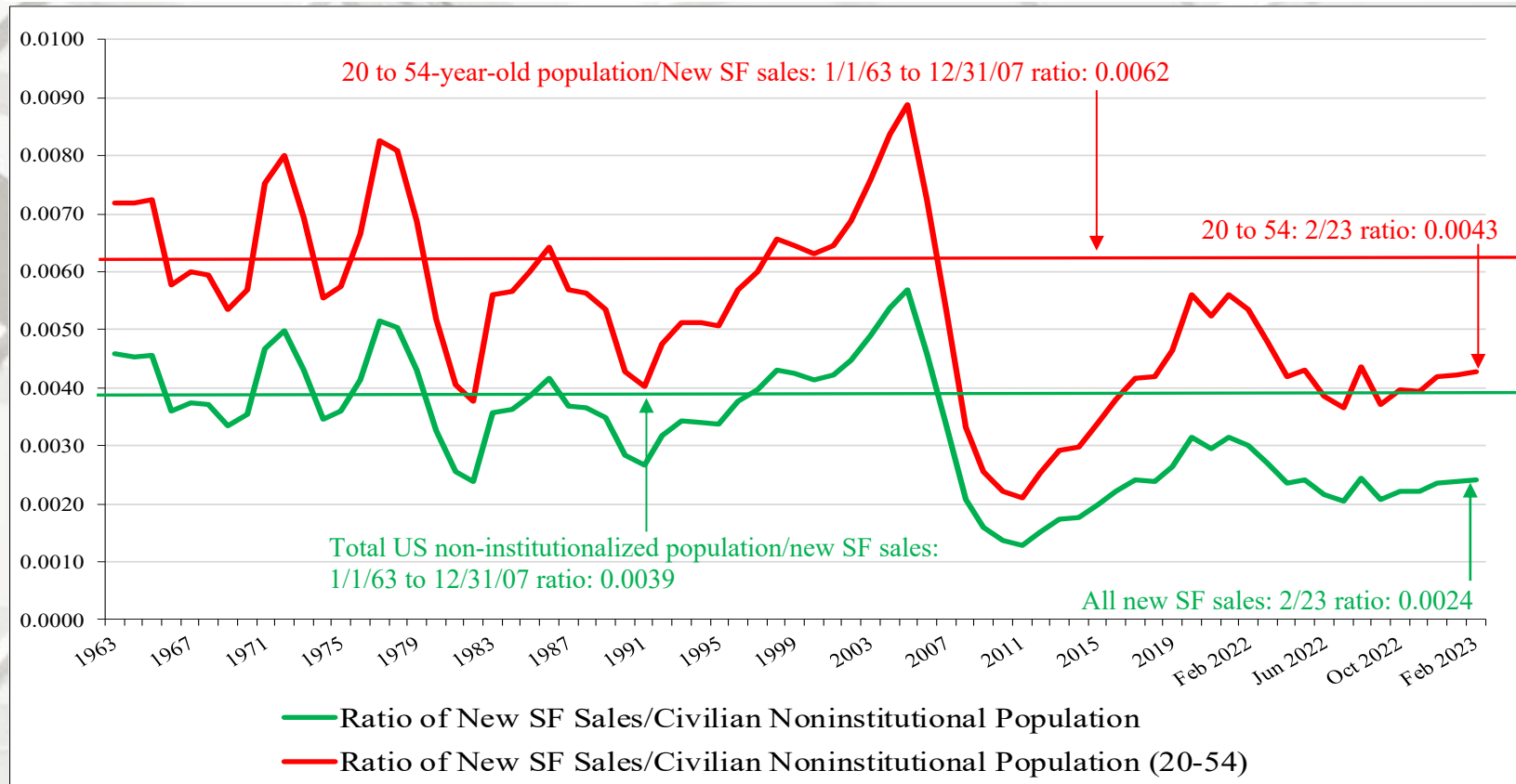


New SF Sales: ≤ \$ 200m and ≥ \$500m: 2002 to February 2022

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

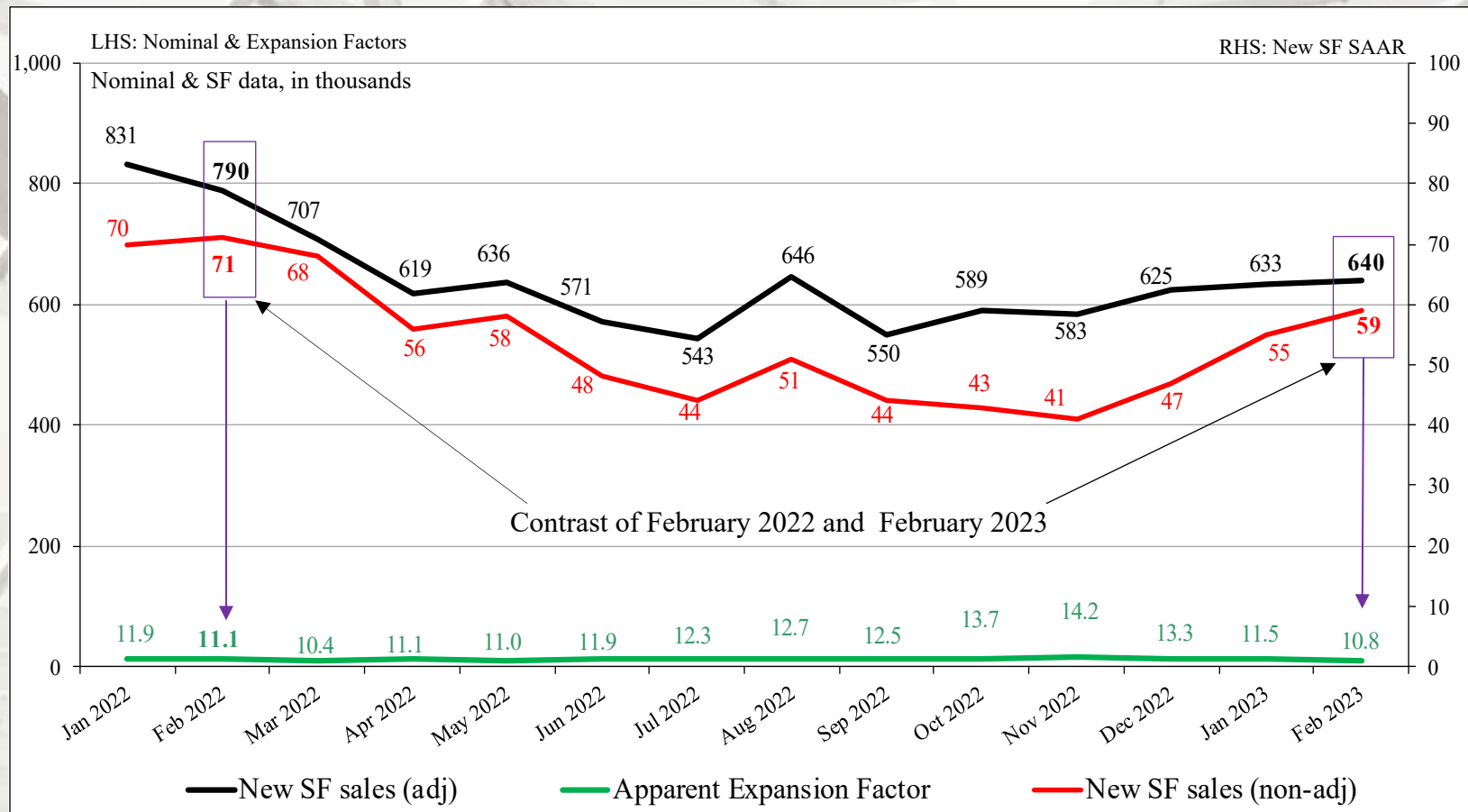


New SF sales adjusted for the US population

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 February 2023 it was 0.0024 – no change from January. The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in February 2023 it was 0.0043 – 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

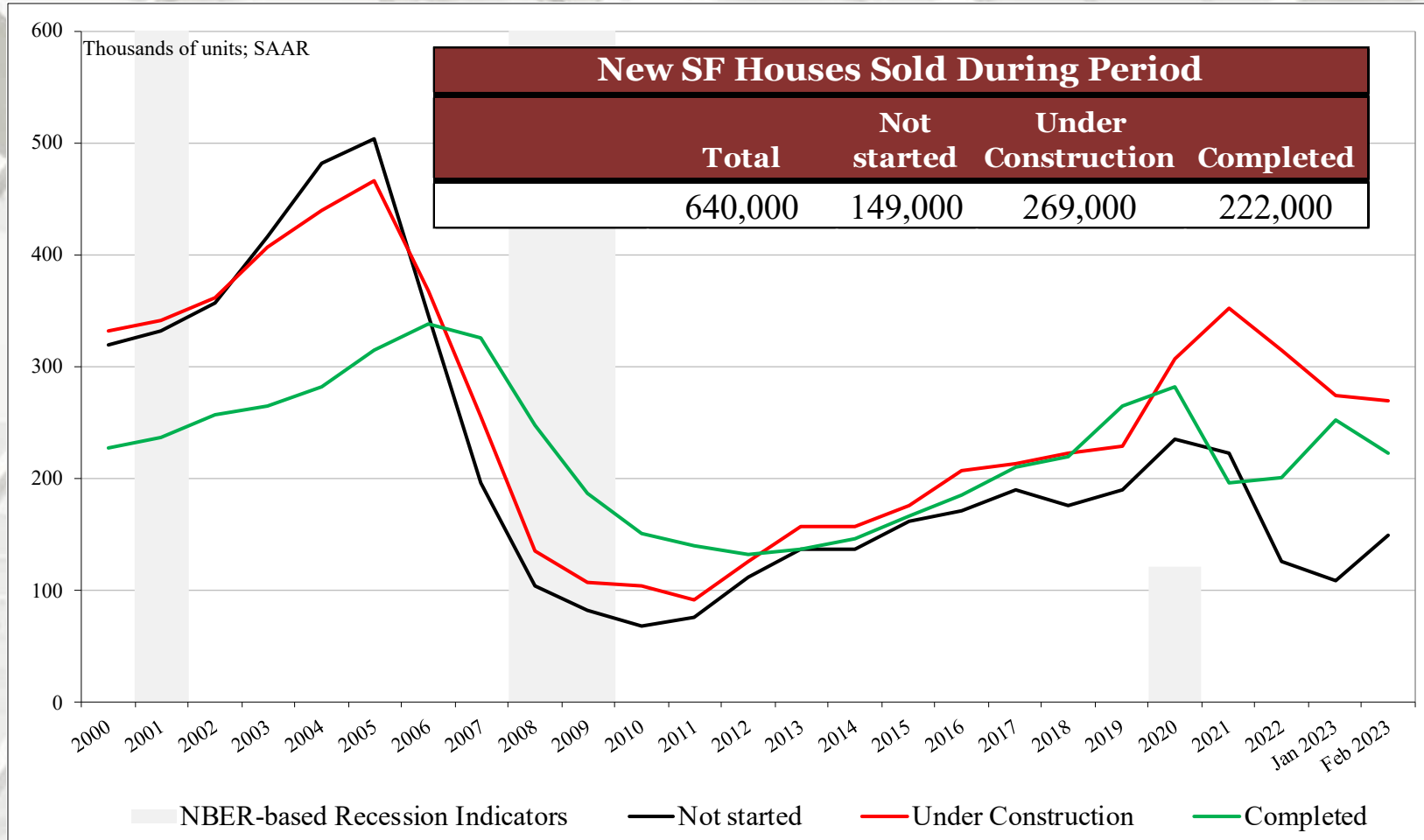
New SF House Sales

New SF Houses Sold During Period

	Total	Not started	Under Construction	Completed
February	640,000	149,000	269,000	222,000
January	633,000	108,000	273,000	252,000
2022	386,000	92,000	262,000	33,000
M/M change	1.1%	38.0%	-1.5%	-11.9%
Y/Y change	65.8%	62.0%	2.7%	572.7%
Total percentage		23.3%	42.0%	34.7%

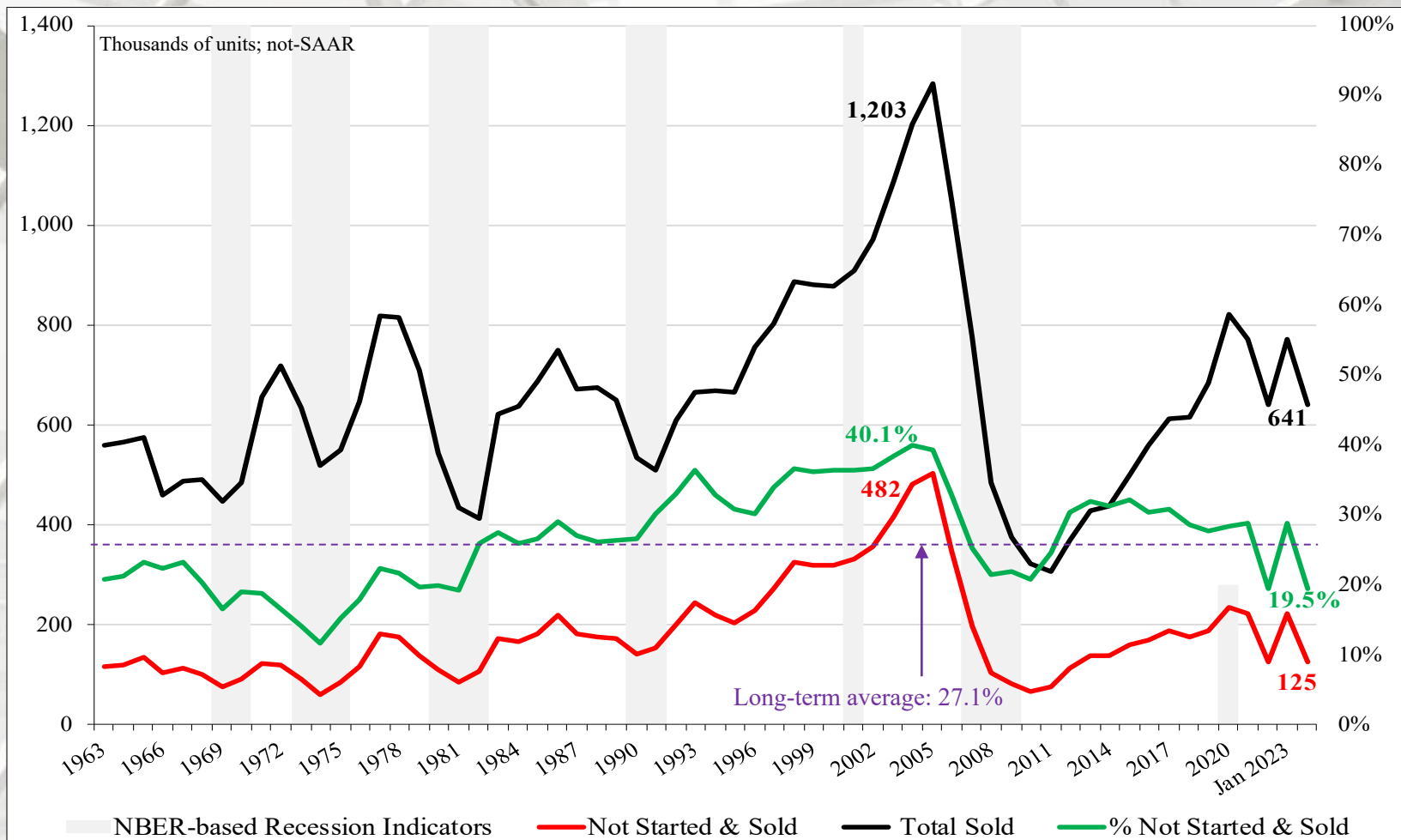
All data is SAAR

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 February (640 m), 19.5% (125 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 at End of Period

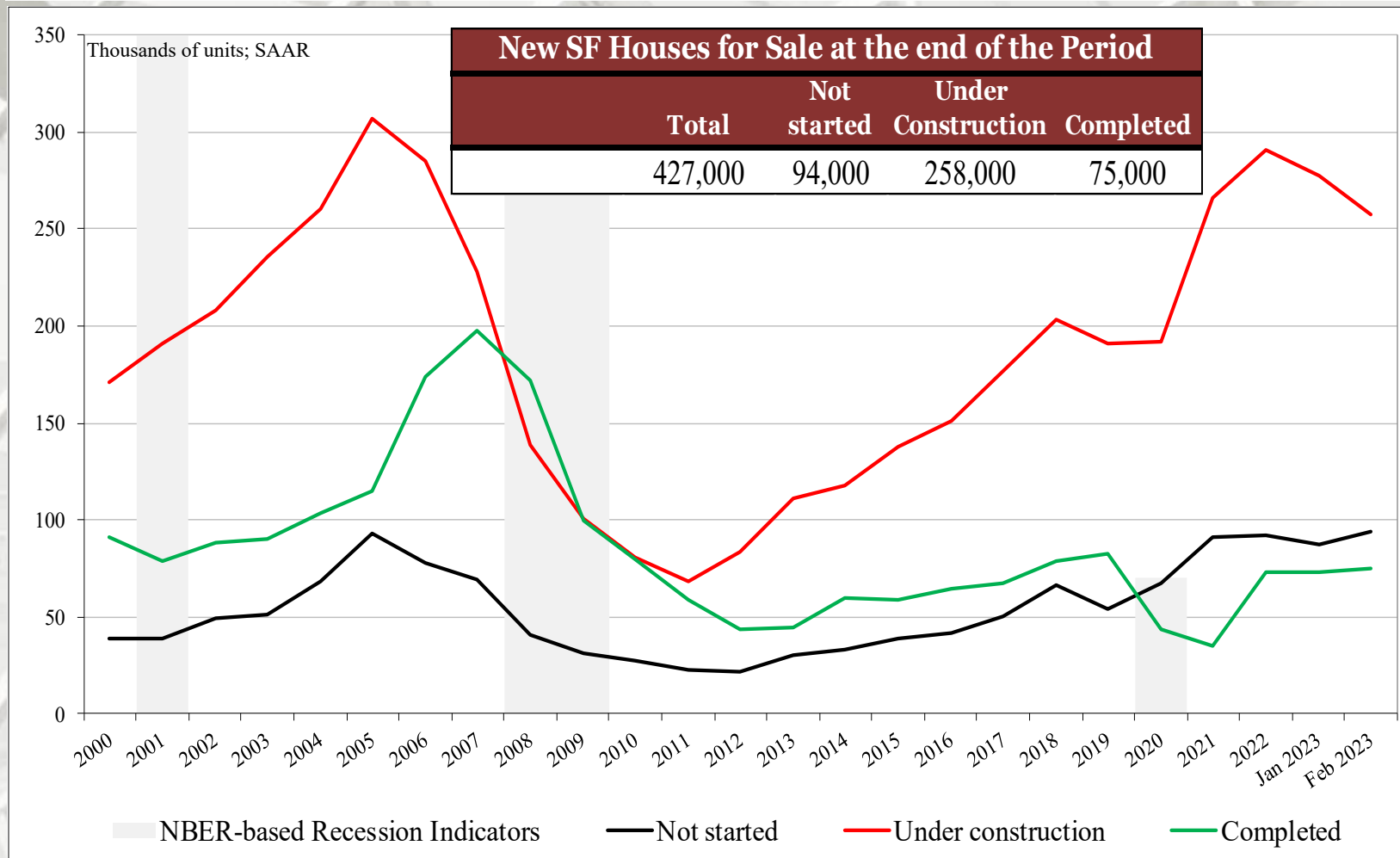
New SF Houses for Sale at the end of the Period

	Total	Not started	Under Construction	Completed
February	427,000	94,000	258,000	75,000
January	438,000	87,000	278,000	73,000
2022	396,000	394,000	394,000	394,000
M/M change	-2.5%	8.0%	-7.2%	2.7%
Y/Y change	7.8%	-1.1%	-4.1%	134.4%
Total percentage		22.0%	60.4%	17.6%

Not SAAR

Of houses listed for sale (427 m) in February, 17.6% (75 m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 94 m (22.0%) 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).

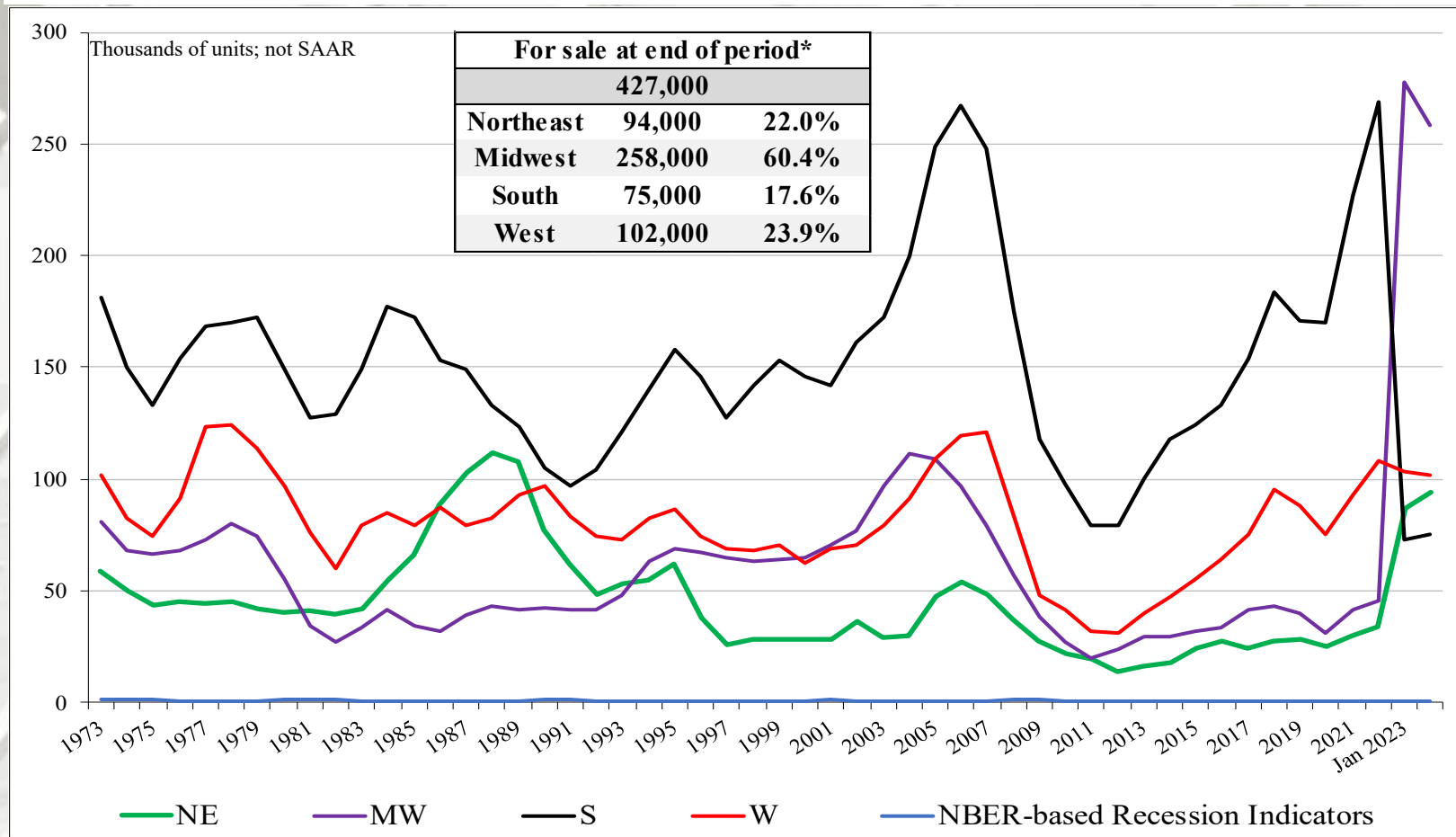
New SF House Sales

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

	Total	NE	MW	S	W
February	427,000	94,000	258,000	75,000	102,000
January	438,000	87,000	278,000	73,000	103,000
2022	386,000	92,000	262,000	33,000	91,000
M/M change	-2.5%	8.0%	-7.2%	2.7%	-1.0%
Y/Y change	10.6%	2.2%	-1.5%	127.3%	12.1%

* Not SAAR

New SF Houses for Sale at End of Period by Region

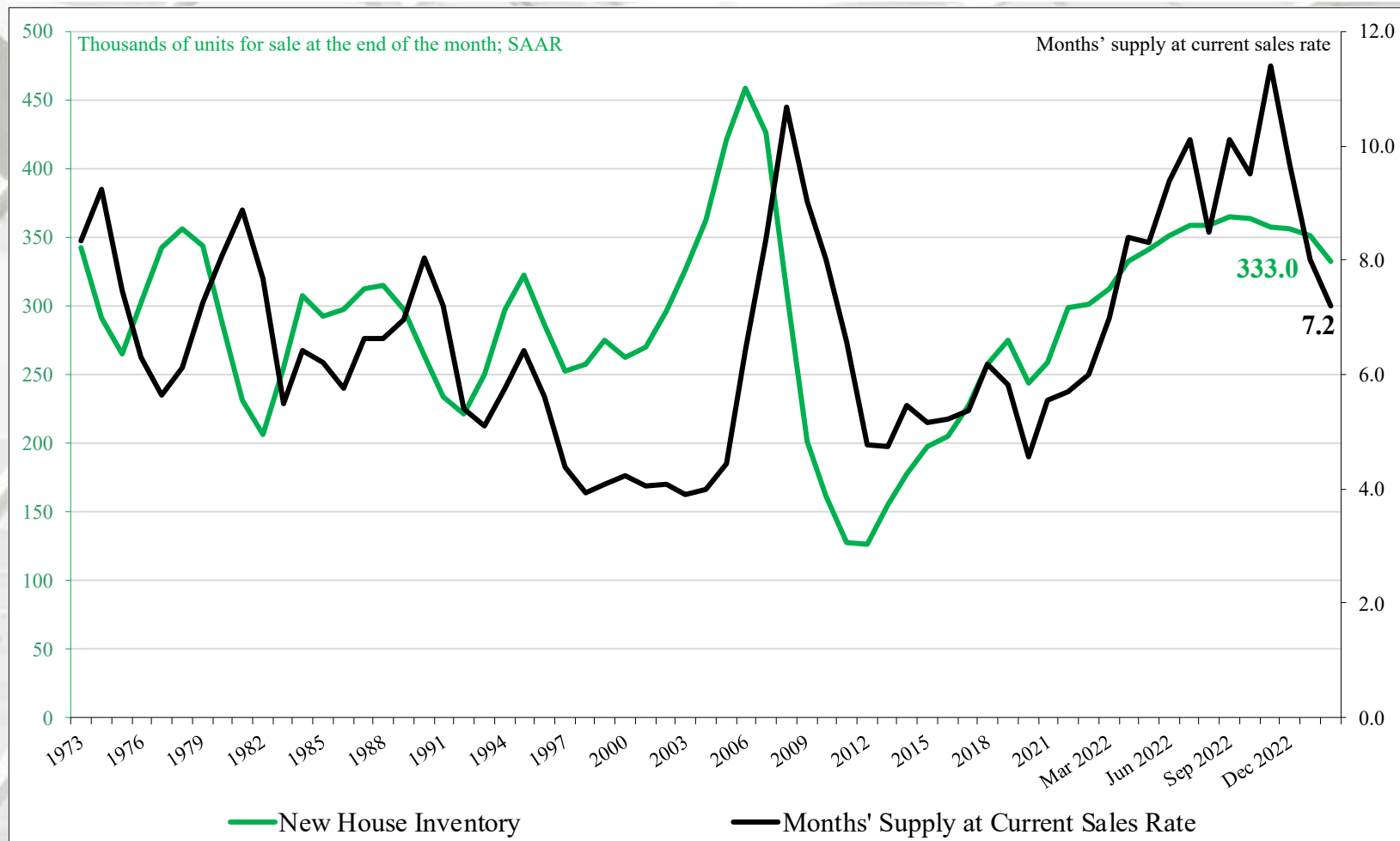


NE = Northeast; MW = Midwest; S = South; W = West

* 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).

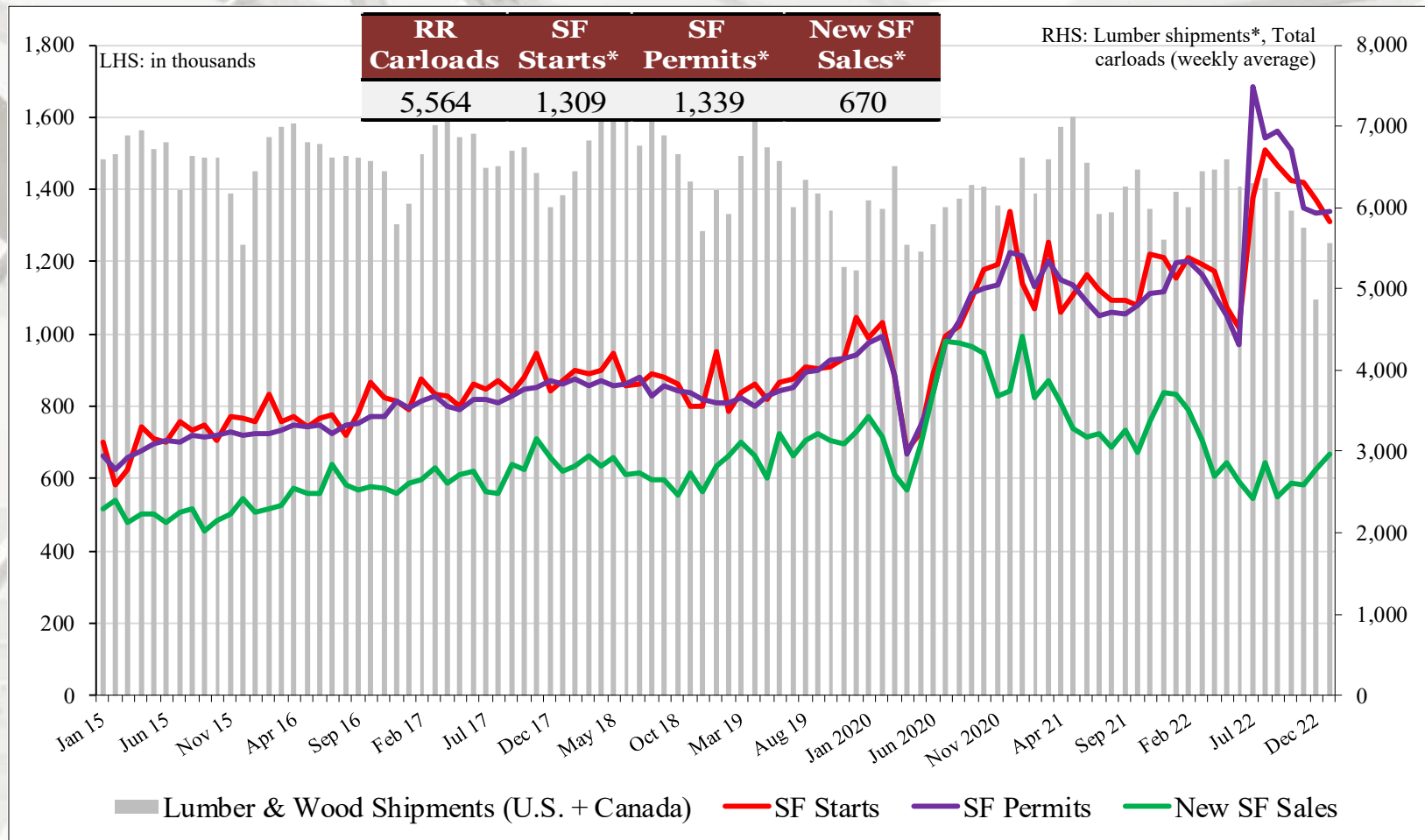
Months' Supply and New House Inventory^a



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

The months' supply of new houses for sale at the end of February was 7.2, greater than the historically preferred number of five- to six-months (SAAR).

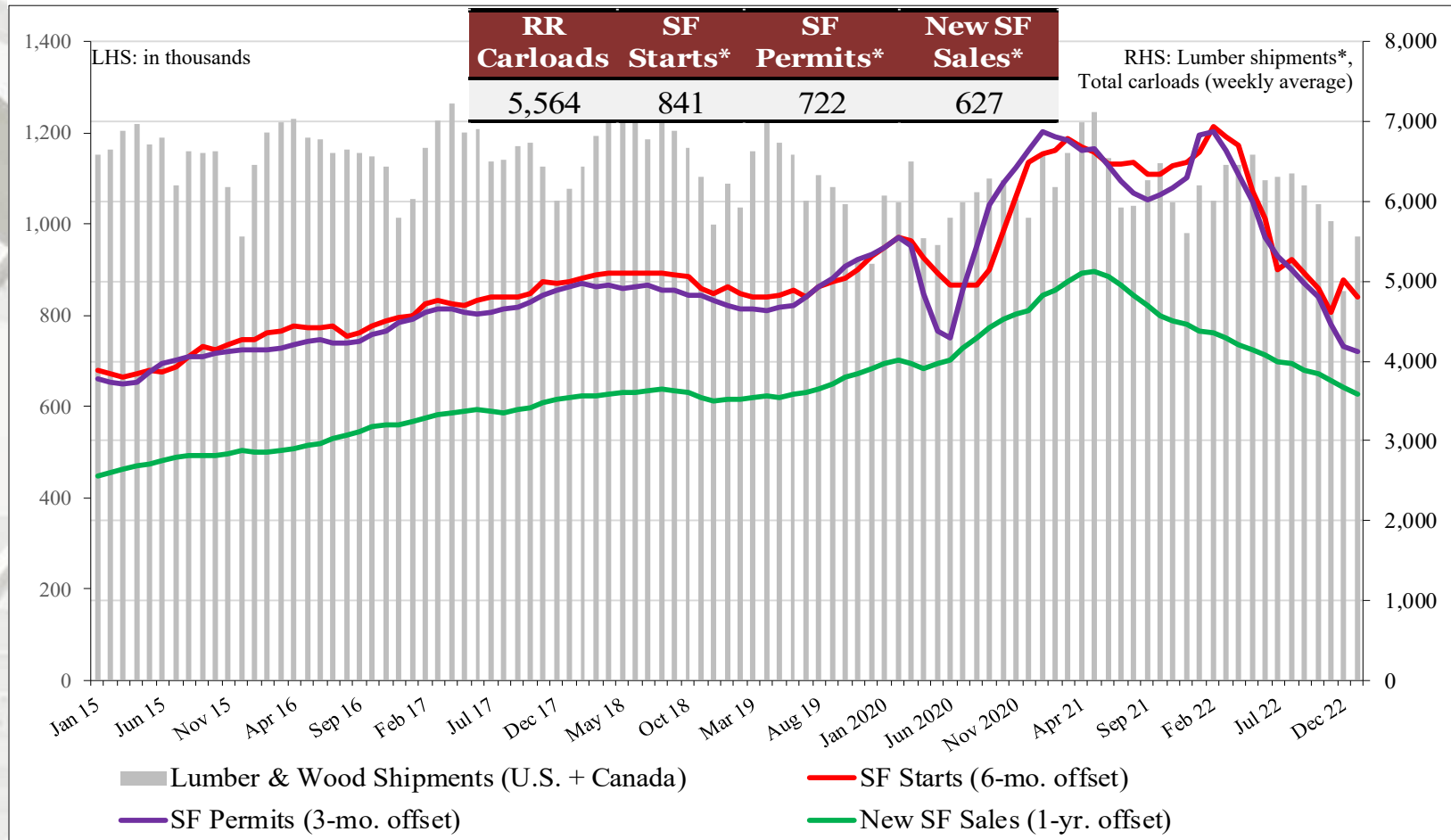
U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales



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

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.

February 2022 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
February	\$852,130	\$368,359	\$122,793	\$360,978
January	\$856,954	\$375,010	\$121,050	\$360,894
2022	\$903,400	\$468,619	\$100,480	\$334,301
M/M change	-0.6%	-1.8%	1.4%	0.0%
Y/Y change	-5.7%	-21.4%	22.2%	8.0%

* 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\$.

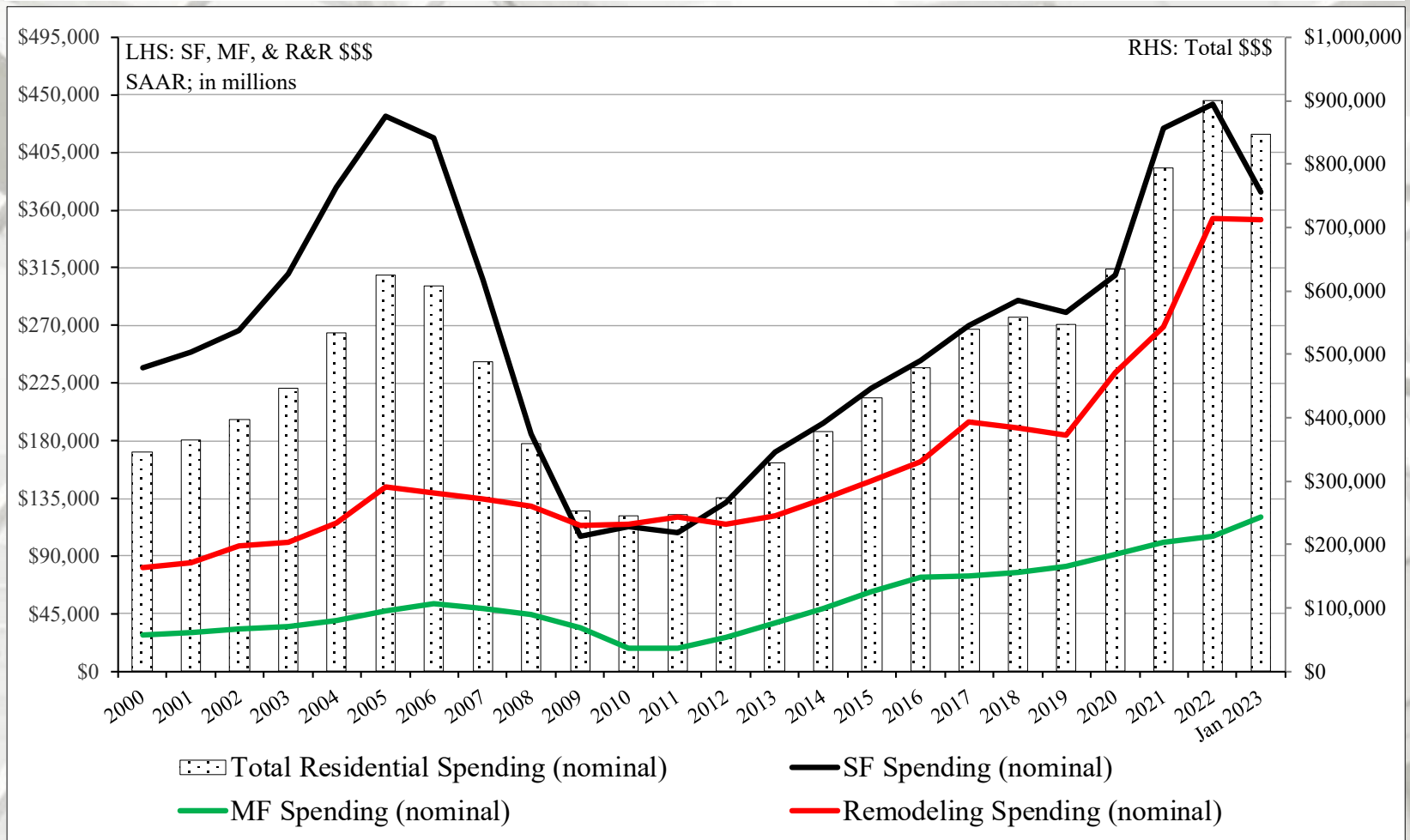
Total private residential construction spending includes new single-family, new multi-family, and improvement (AKA repair and remodeling) expenditures.

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.

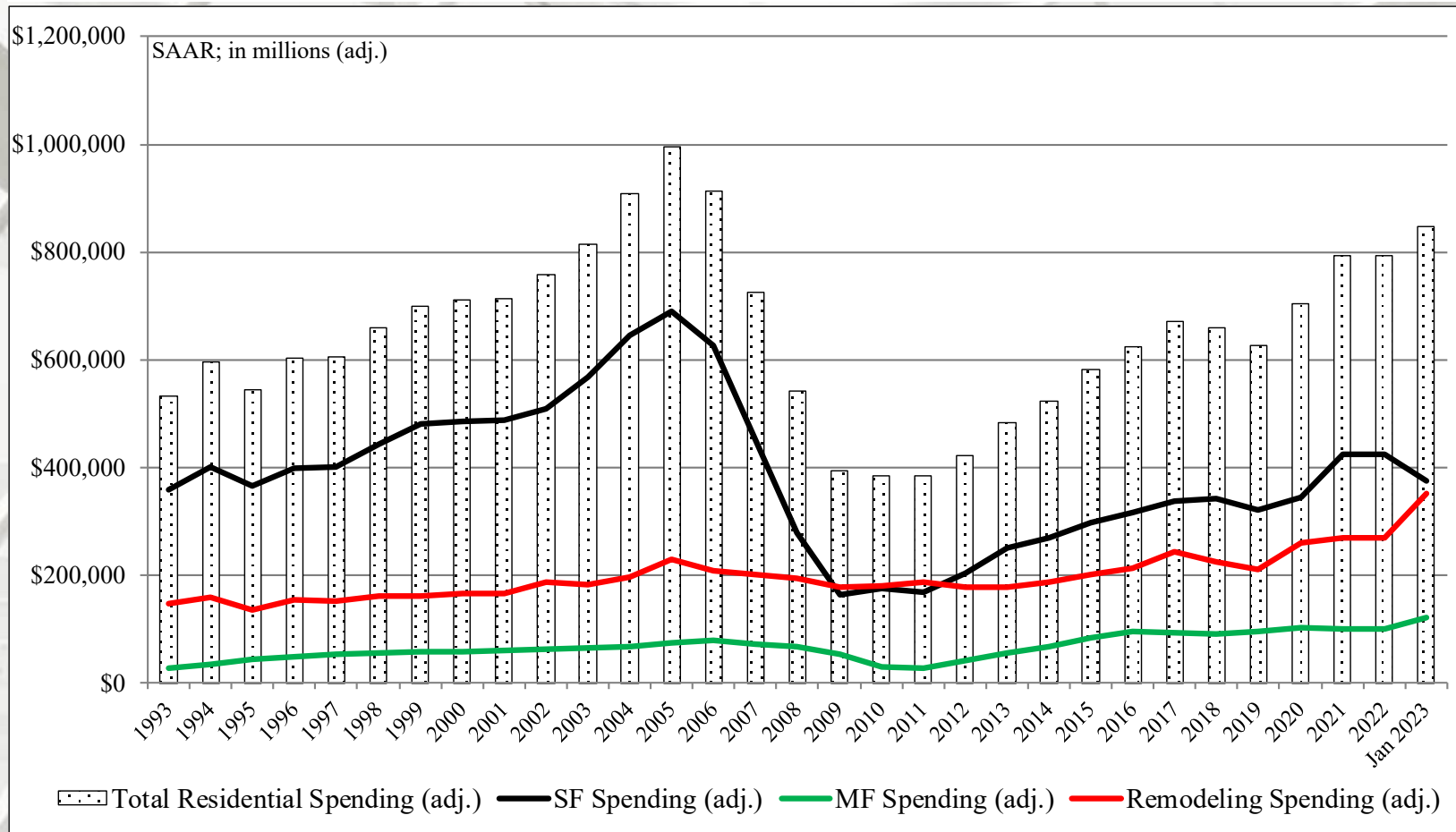
Total Construction Spending (nominal): 2000 – February 2023



Reported in nominal US\$.

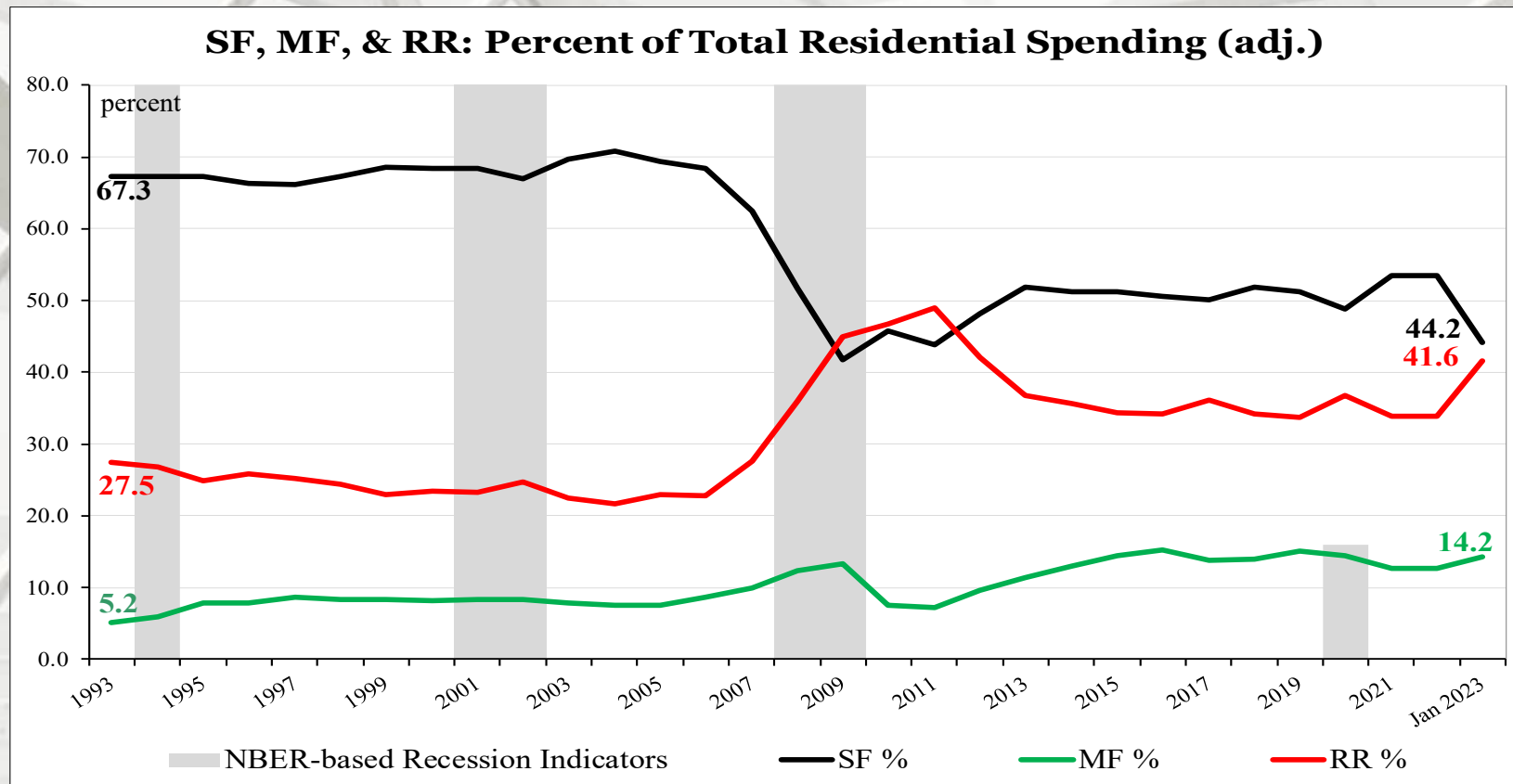
The US DOC does not report improvement spending directly, this is a monthly estimation for 2022.

Total Construction Spending (adjusted): 1993 – February 2023



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

Construction Spending Shares: 1993 – February 2023



Total Residential Spending: 1993 through 2006

SF spending average: 69.2%

MF spending average: 7.5%

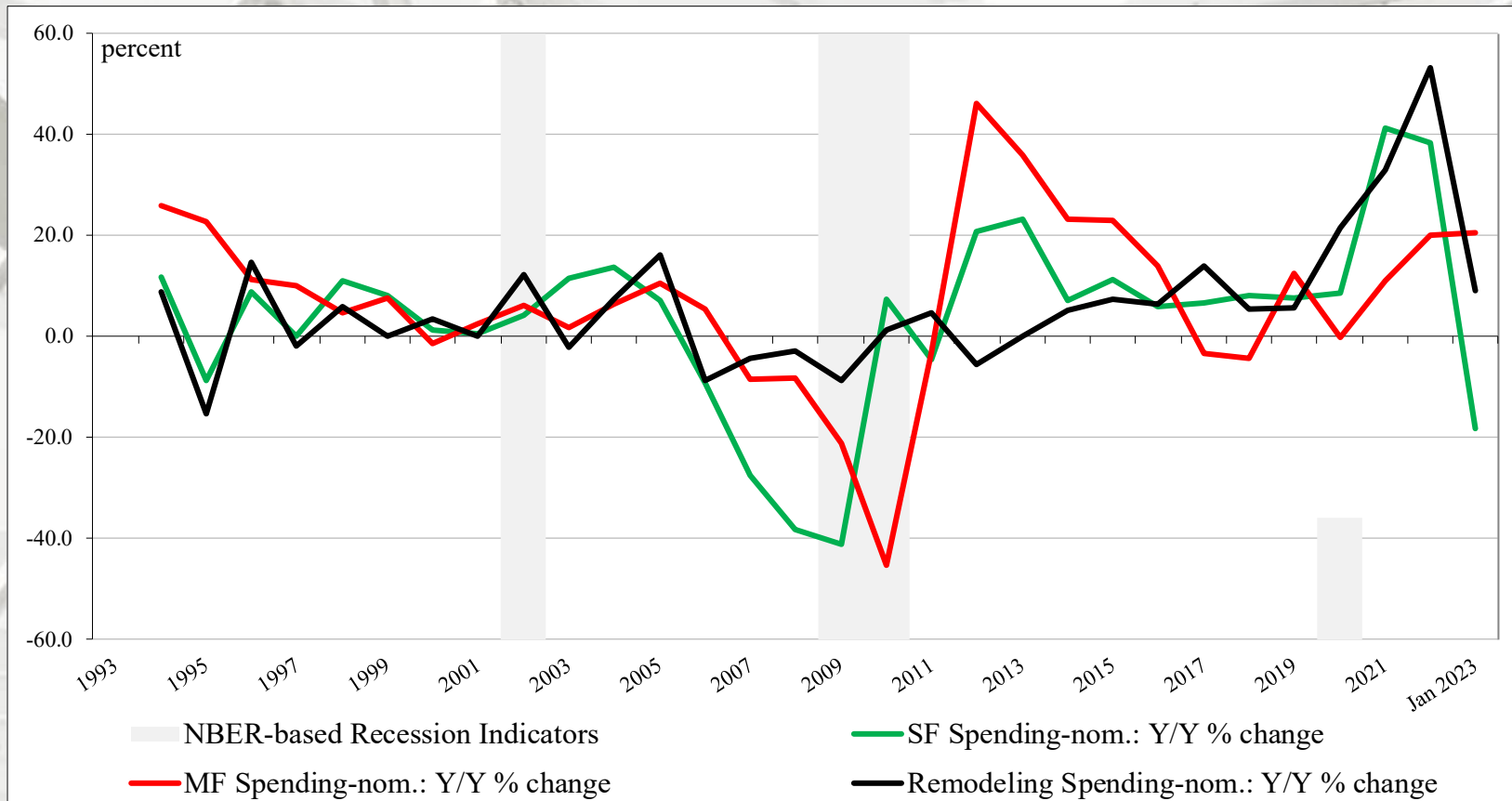
Residential remodeling (RR) spending average: 23.3% (SAAR).

Note: 1993 to 2021 (adjusted for inflation, BEA Table 1.1.9); February 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>; 4/3/23 and <http://www.bea.gov/iTable/iTable.cfm>; 9/30/22

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



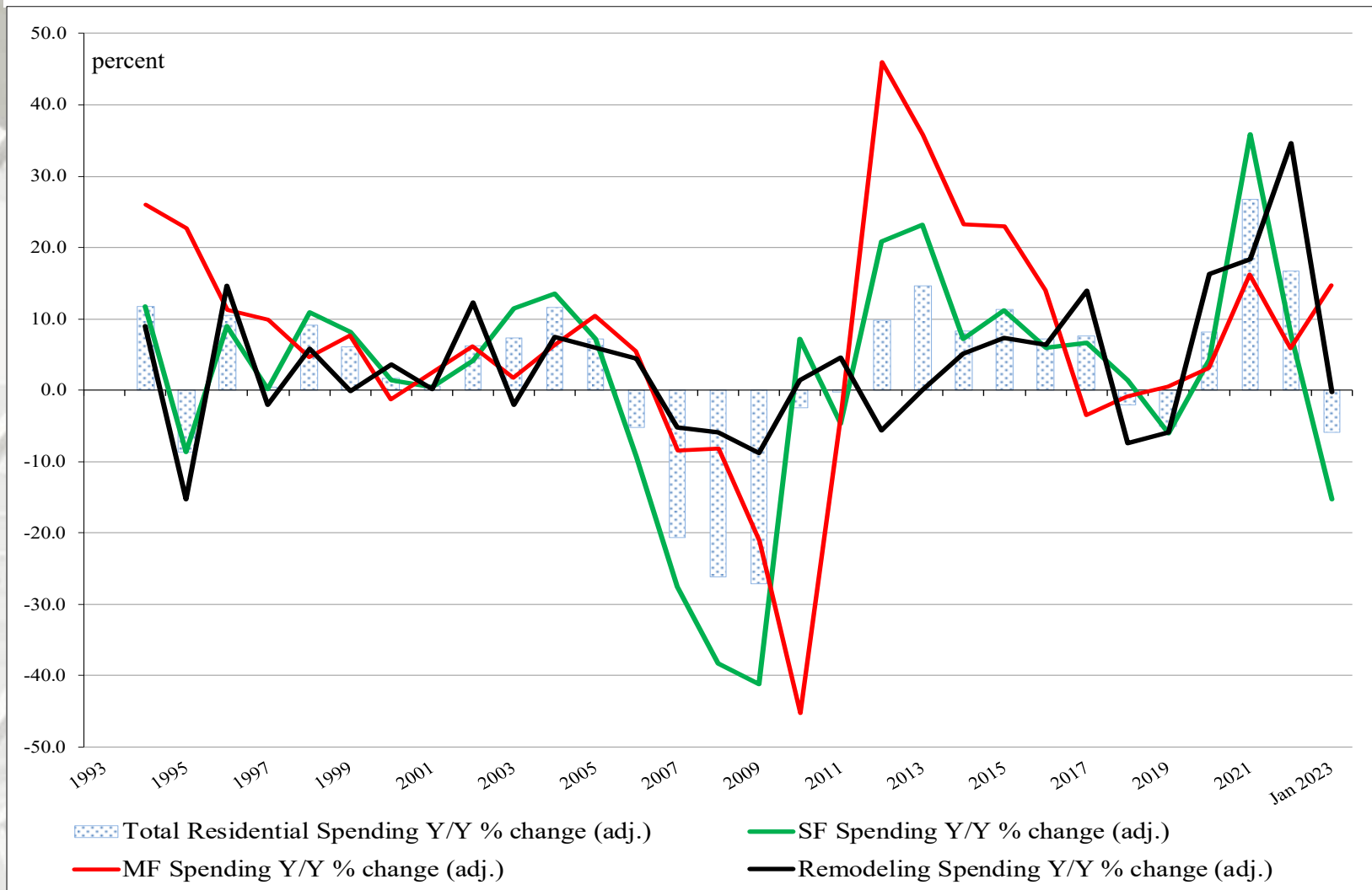
Nominal Residential Construction Spending: Y/Y percentage change, 1993 to February 2021

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 (February 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).

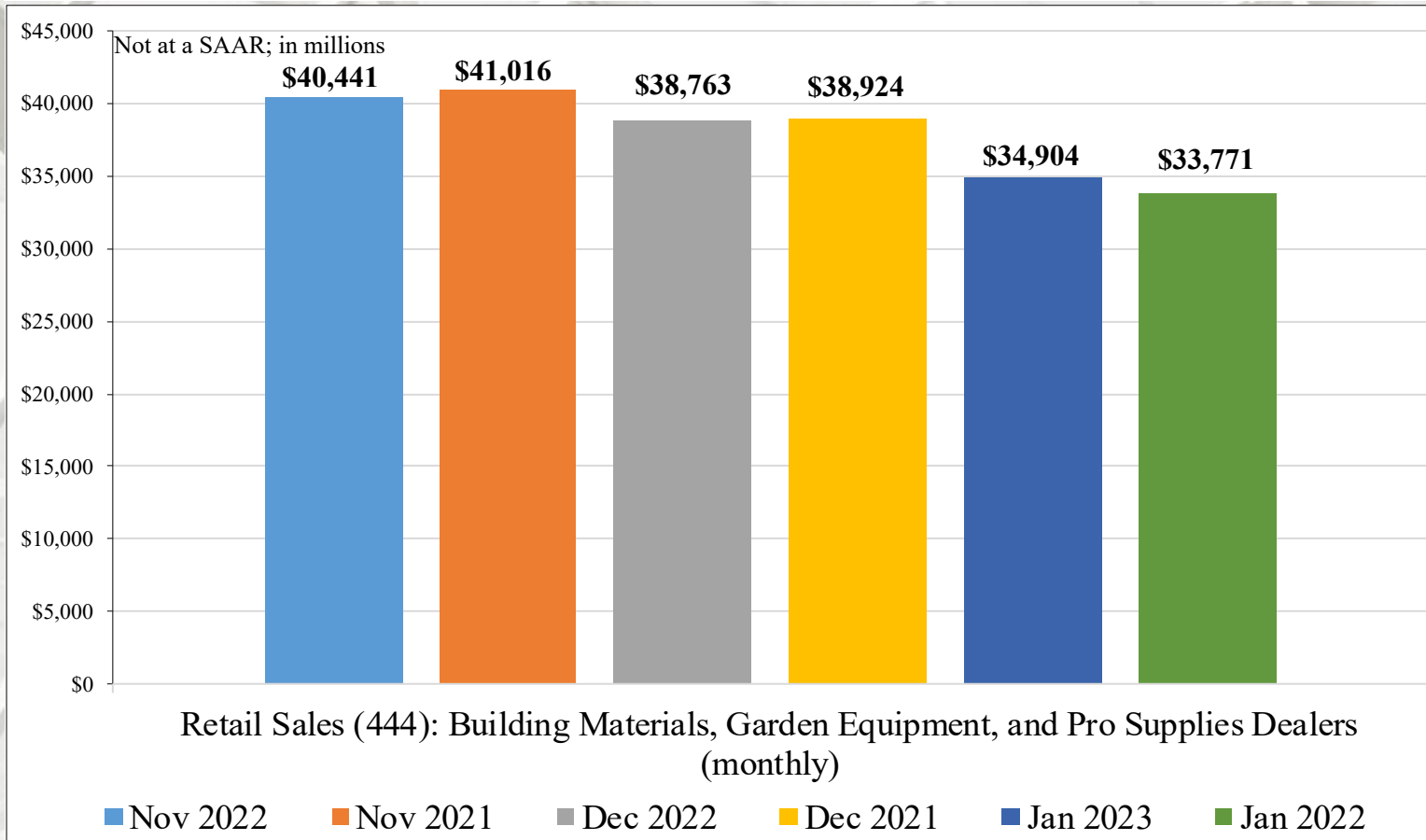
Sources: * <https://fred.stlouisfed.org/series/USREC>, 6/24/21; <http://www.census.gov/construction/c30/pdf/privsa.pdf>; 4/3/23 and <http://www.bea.gov/iTable/iTable.cfm>; 9/30/22

Adjusted Construction Spending: Y/Y Percentage Change, 1993 – February 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 February 2023 from February 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.” – Raffi Williams and Adam Russell, Harvard Joint Center for Housing Studies

Remodeling

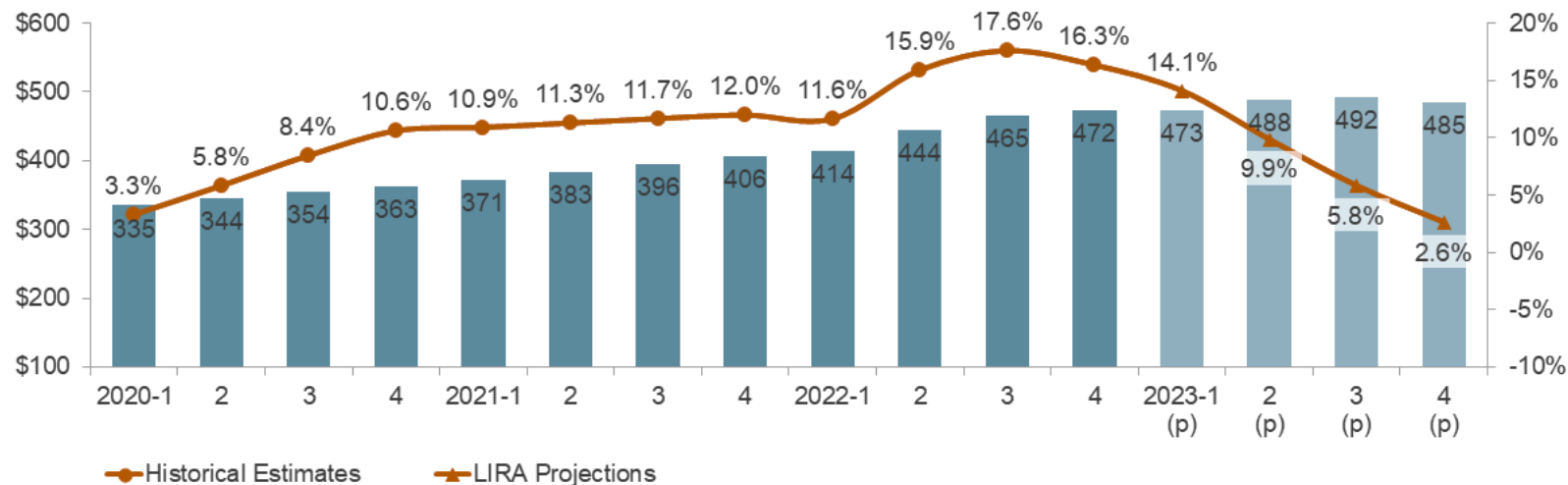
Harvard Joint Center for Housing Studies

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.

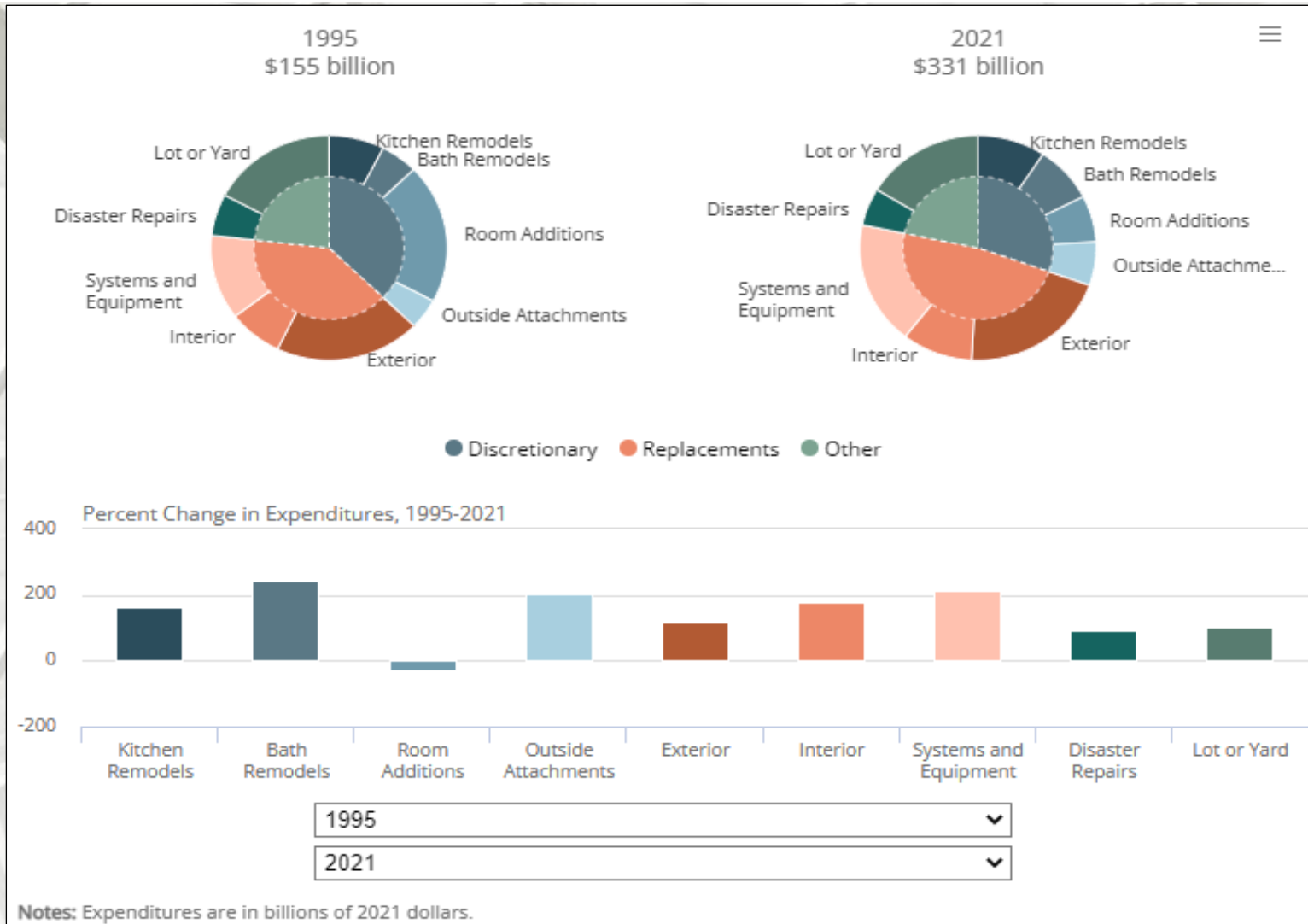
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Joint Center for Housing Studies of Harvard University **JCHS**

Remodeling

Harvard Joint Center for Housing Studies

Homeowner Improvement Expenditures By Project Type



Remodeling

Harvard Joint Center for Housing Studies

Homeowner Improvement Expenditures By Project Type

“Job categories are aggregations of the detailed projects reported in the AHS: Outside attachments include decks, porches, patios, garages, and carports. Exterior replacements include roofing, siding, windows, and doors. Interior replacements include flooring, paneling, ceiling, and insulation. Systems and equipment replacements include plumbing, electrical, HVAC, and appliances. Lot or yard includes septic tanks; driveways or walkways; fencing or walls; swimming pools, tennis courts, or other recreational structures; sheds, detached garages, or other detached buildings; and landscaping or sprinkler systems (since 2015).

Users are cautioned in making comparisons of outside attachments, exterior replacements, and lot or yard improvements before and after 2007, because definitions of these project categories changed modestly beginning in that year. For more information about the changes, see table A-5 in the report [data tables](#).” – Raffi Williams and Adam Russell, Harvard Joint Center for Housing Studies

2013 data tabulations use JCHS-adjusted weights. For more information about the re-weighting methodology, see <https://www.jchs.harvard.edu/research-areas/research-notes/re-weighting-number-households-undertaking-home-improvements-2013>.

Source: [Harvard Joint Center for Housing Studies](#) tabulations of the Department of Housing and Urban Development (HUD), 1995–2021 American Housing Surveys.

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
February	4,580,000	\$363,000	2.6
January	4,000,000	\$361,200	2.9
2022	5,920,000	\$363,700	1.7
M/M change	14.5%	0.5%	-10.3%
Y/Y change	-22.6%	-0.2%	52.9%

All sales data: SAAR

Existing House Sales

	NE	MW	S	W
February	520,000	1,090,000	2,110,000	860,000
January	500,000	960,000	1,820,000	720,000
2022	700,000	1,340,000	2,680,000	1,200,000
M/M change	4.0%	13.5%	15.9%	19.4%
Y/Y change	-25.7%	-18.7%	-21.3%	-28.3%

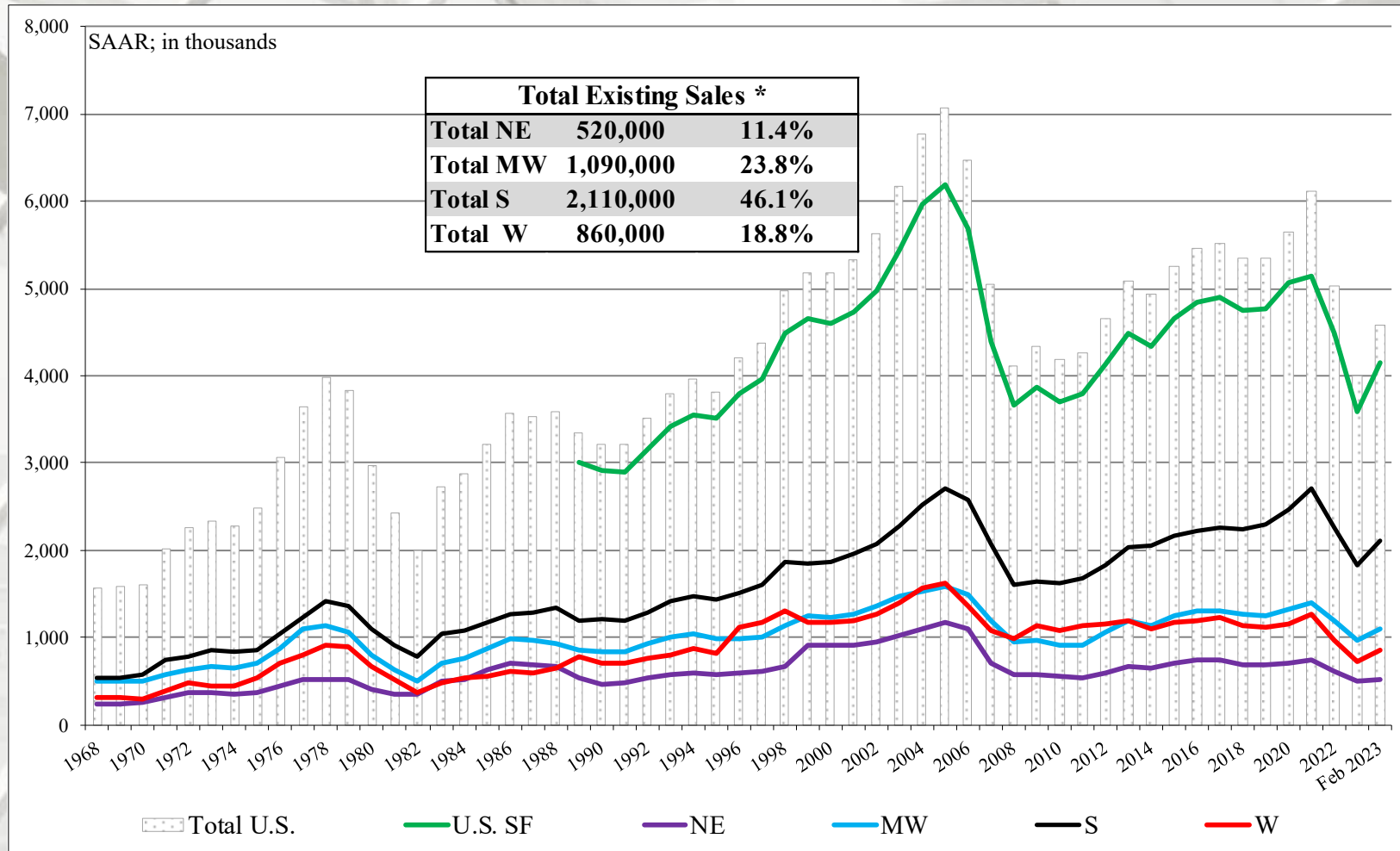
	Existing SF Sales	SF Median Price
February	4,140,000	\$367,500
January	3,590,000	\$365,400
2022	5,270,000	\$370,000
M/M change	15.3%	0.5%
Y/Y change	-21.4%	-0.7%

All sales data: SAAR.

Source: <https://fred.stlouisfed.org/series/EXHOSLUSM495S>; 3/21/23

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

“” – Raffi Williams and Adam Russell, FHFA

“” – 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

FHFA House Price Index Up 0.2 Percent in January; Up 5.3 Percent from Last Year

Significant Findings

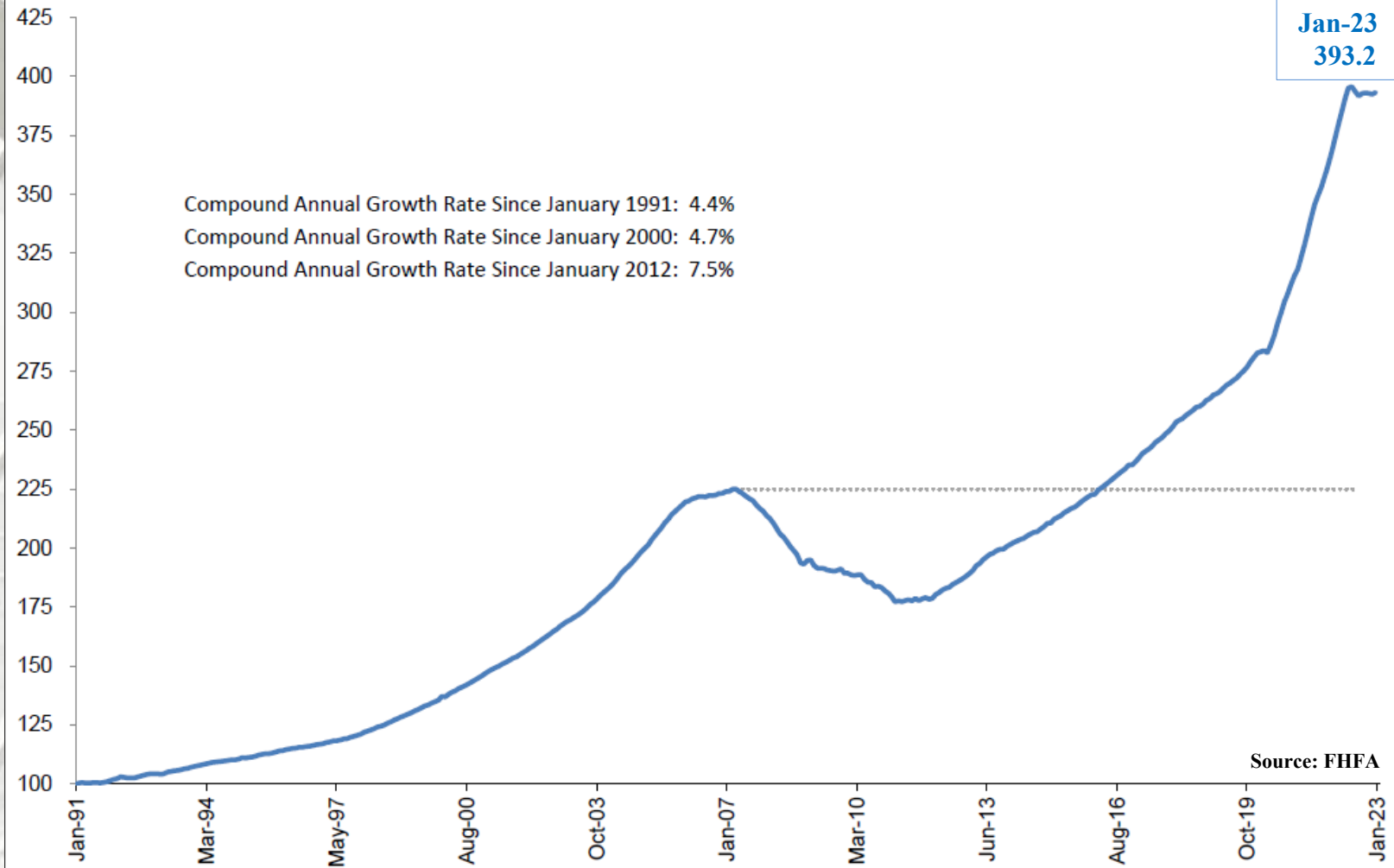
“U.S. house prices rose in January, up 0.2 percent from December, according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI®). House prices rose 5.3 percent from January 2022 to January 2023. The previously reported 0.1 percent price decline in December 2022 remained unchanged.

For the nine census divisions, seasonally adjusted monthly price changes from December 2022 to January 2023 ranged from -0.6 percent in the Pacific division to +2.0 percent in the New England division. The 12-month changes were -1.5 percent in the Pacific division to +9.6 percent in the South Atlantic division.”
– Raffi Williams and Adam Russell, FHFA

“U.S. house prices changed slightly in January, continuing the trend of the last few months. Many of the January closings, on which this month’s HPI is constructed, reflect rate locks after mortgage rates declined from their peak in early November. Inventories of available homes for sale remained low.” – Dr. Nataliya Polkovnichenko, Supervisory Economist, Division of Research and Statistics, FHFA

U.S. Housing Prices

Monthly House Price Index for U.S. from January 1991 - Present
Purchase-Only FHFA HPI® (Seasonally Adjusted, Nominal)



U.S. Housing Prices

S&P Corelogic Case-Shiller Index Declining Trend Continued in January

“... Data released today for January 2023 show that the trend of declining home price gains continued across the United States with declining prices reported in the San Francisco, San Diego, Portland, and Seattle markets. 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 3.8% annual gain in January, down from 5.6% in the previous month. The 10-City Composite annual increase came in at 2.5%, down from 4.4% in the previous month. The 20-City Composite posted a 2.5% year-over-year gain, down from 4.6% in the previous month.

Miami, Tampa, and Atlanta again reported the highest year-over-year gains among the 20 cities in January. Miami led the way with a 13.8% year-over-year price increase, followed by Tampa in second with a 10.5% increase, and Atlanta in third with a 8.4% increase. All 20 cities reported lower prices in the year ending January 2023 versus the year ending December 2022.

Month-Over-Month

Before seasonal adjustment, the U.S. National Index posted a -0.5% month-over-month decrease in January, while the 10-City and 20-City Composites posted decreases of -0.5% and -0.6%, respectively. After seasonal adjustment, the U.S. National Index posted a month-over-month decrease of -0.2%, while both the 10-City and 20-City Composites posted decreases of -0.4%.

In January, before seasonal adjustment, 19 cities reported declines with only Miami reporting an increase at 0.1%. After seasonal adjustment, 15 cities reported declines while Miami, Boston, Charlotte and Cleveland had slight increases.” – 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

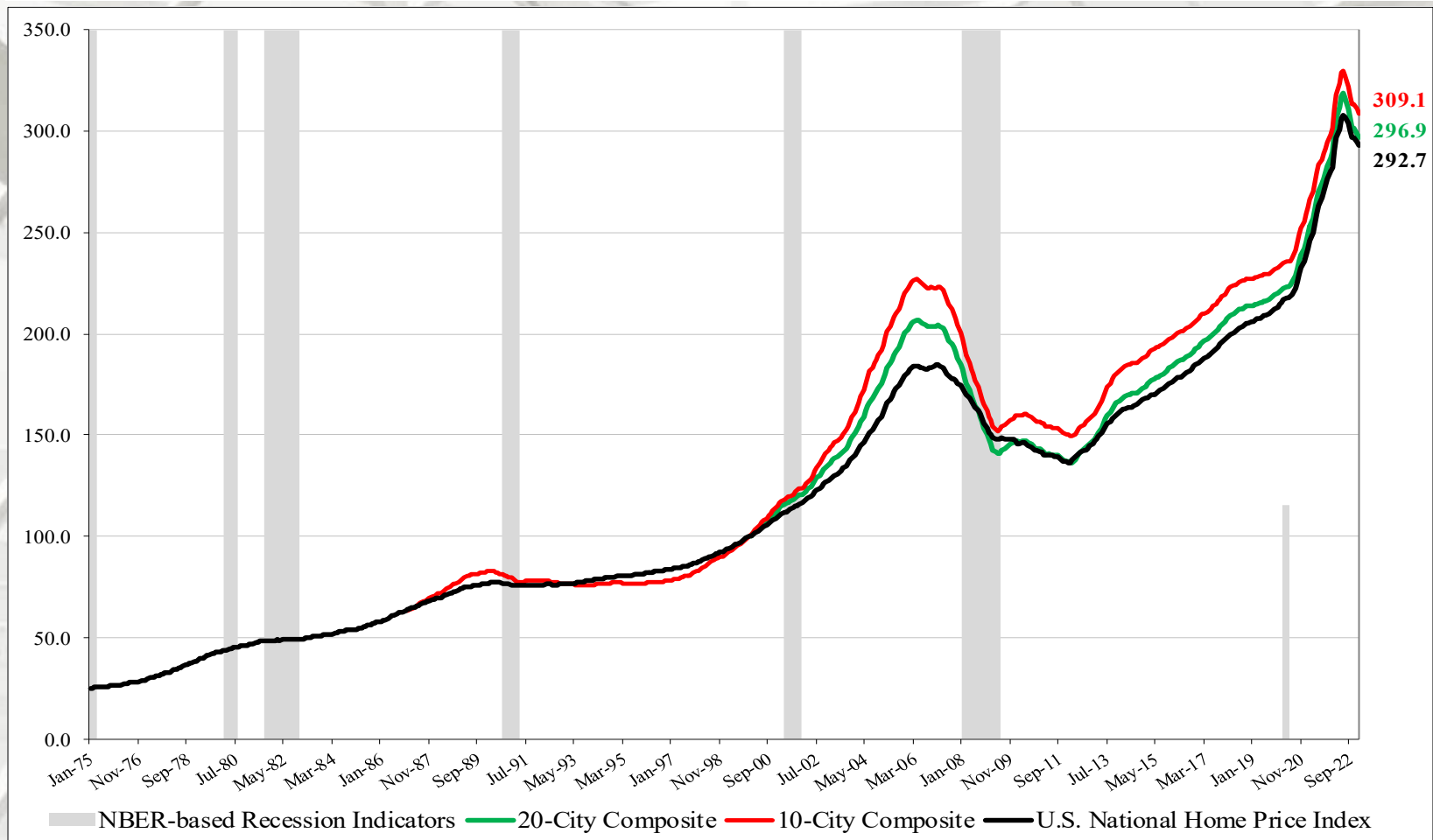
“2023 began as 2022 had ended, with U.S. home prices falling for the seventh consecutive month. The National Composite declined by 0.5% in January, and now stands 5.1% below its peak in June 2022. On a trailing 12-month basis, the National Composite is only 3.8% ahead of its level in January 2022, a result also reflected in our 10- and 20-City Composites (both +2.5% year-over-year).

January’s market weakness was broadly based. Before seasonal adjustment, 19 cities registered a decline; the seasonally adjusted picture is a bit brighter, with only 15 cities declining. With or without seasonal adjustment, most cities’ January declines were less severe than their December counterparts.

Miami (+13.8% year-over-year) was the best performing city in January, extending its winning streak to six consecutive months. Tampa (+10.5%) and Atlanta (+8.4%) continued in second and third place, with Charlotte (+8.1%) not far behind. At the other end of the scale, one of the most interesting aspects of January’s report is the continued weakness in home prices on the West Coast, as San Diego and Portland joined San Francisco and Seattle in negative year-over-year territory. It’s therefore unsurprising that the Southeast (+10.2%) continues as the country’s strongest region, while the West (-1.5%) continues as the weakest.

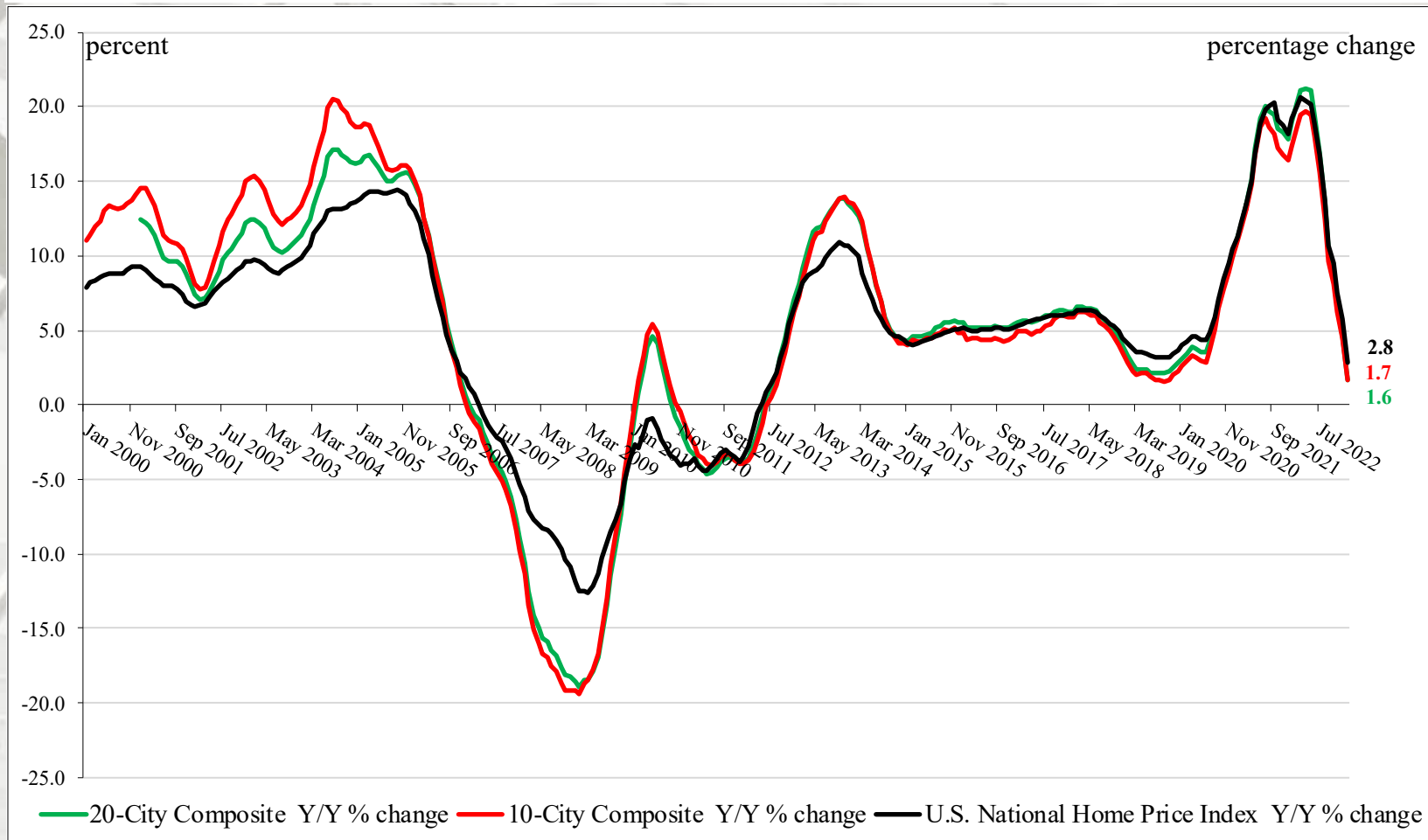
Financial news this month has been dominated by ructions in the commercial banking industry, as some institutions’ risk management functions proved unequal to the rising level of interest rates. Despite this, the Federal Reserve remains focused on its inflation-reduction targets, which suggest that rates may remain elevated in the near-term. Mortgage financing and the prospect of economic weakness are therefore 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

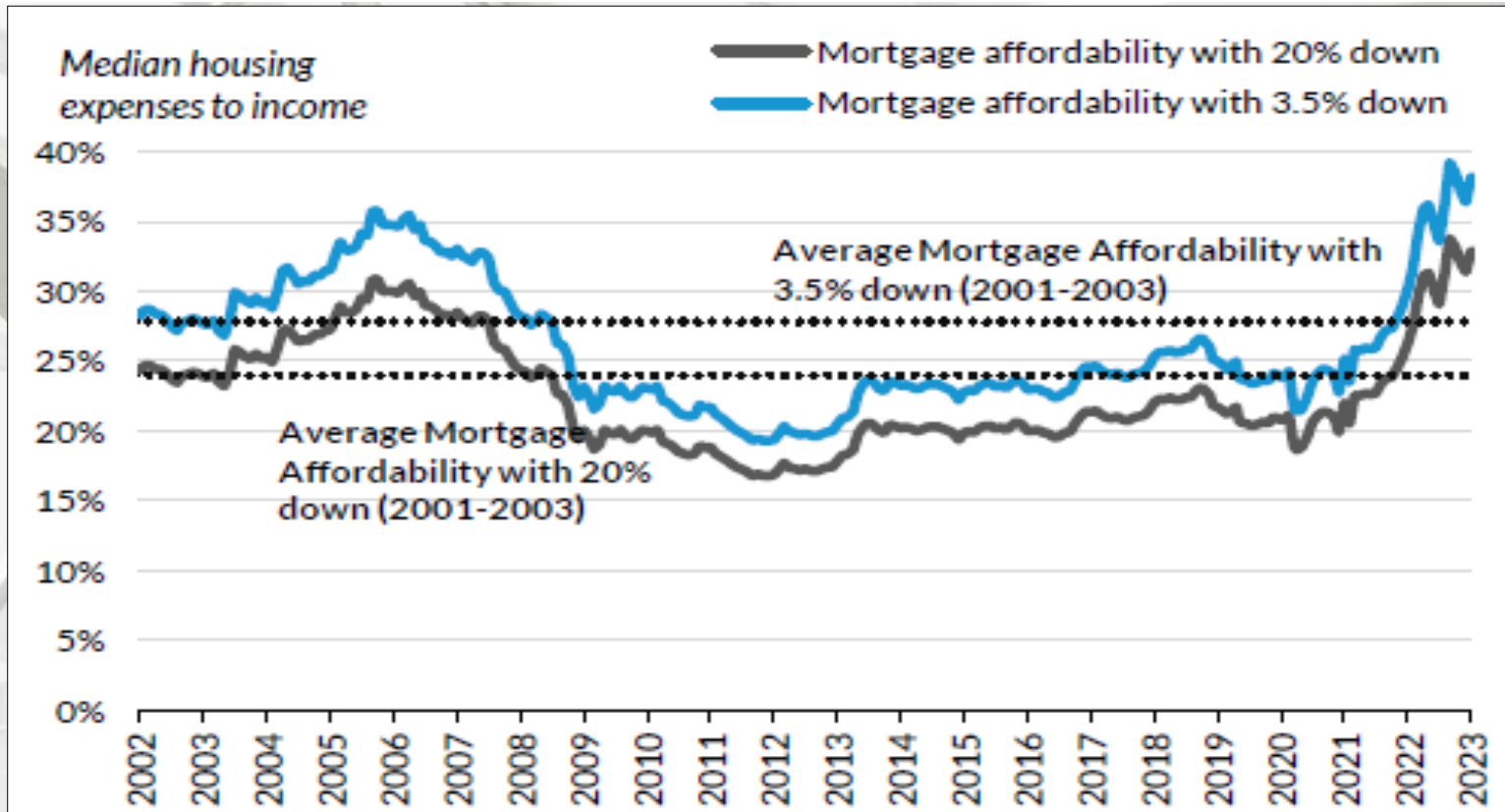


* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Y/Y Price Change

From January 2022 to January 2023, the National Index decreased 2.8%; the Ten-City by 1.7%, and the Twenty-City by 1.6%.

U.S. Housing Affordability

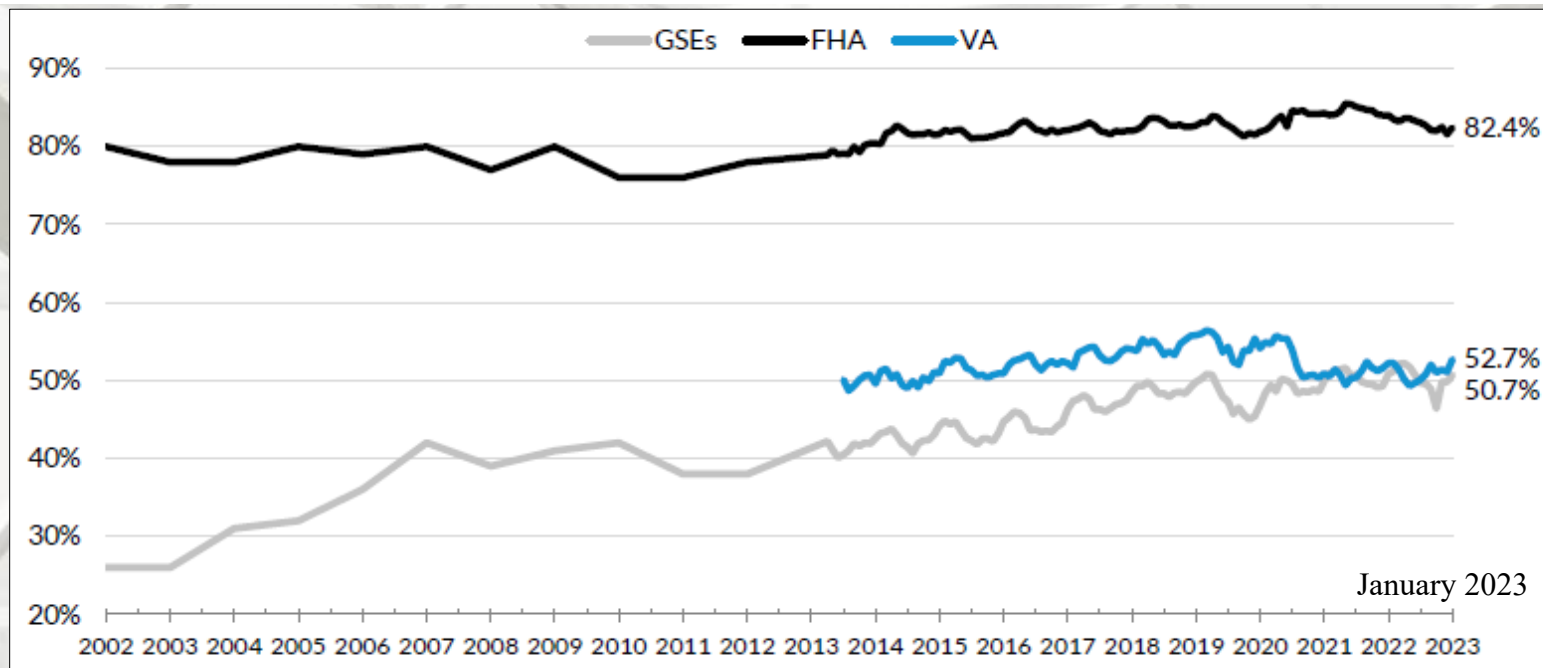


Urban Institute

National Mortgage Affordability Over Time

“After some modest relief in December and January, mortgage affordability worsened in February. As of February 2023, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 32.9 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 38.2 percent, also slightly above the 35.8 percent prior peak in November 2005. ... ” – Laurie Goodman *et. al*, Vice President, Urban Institute

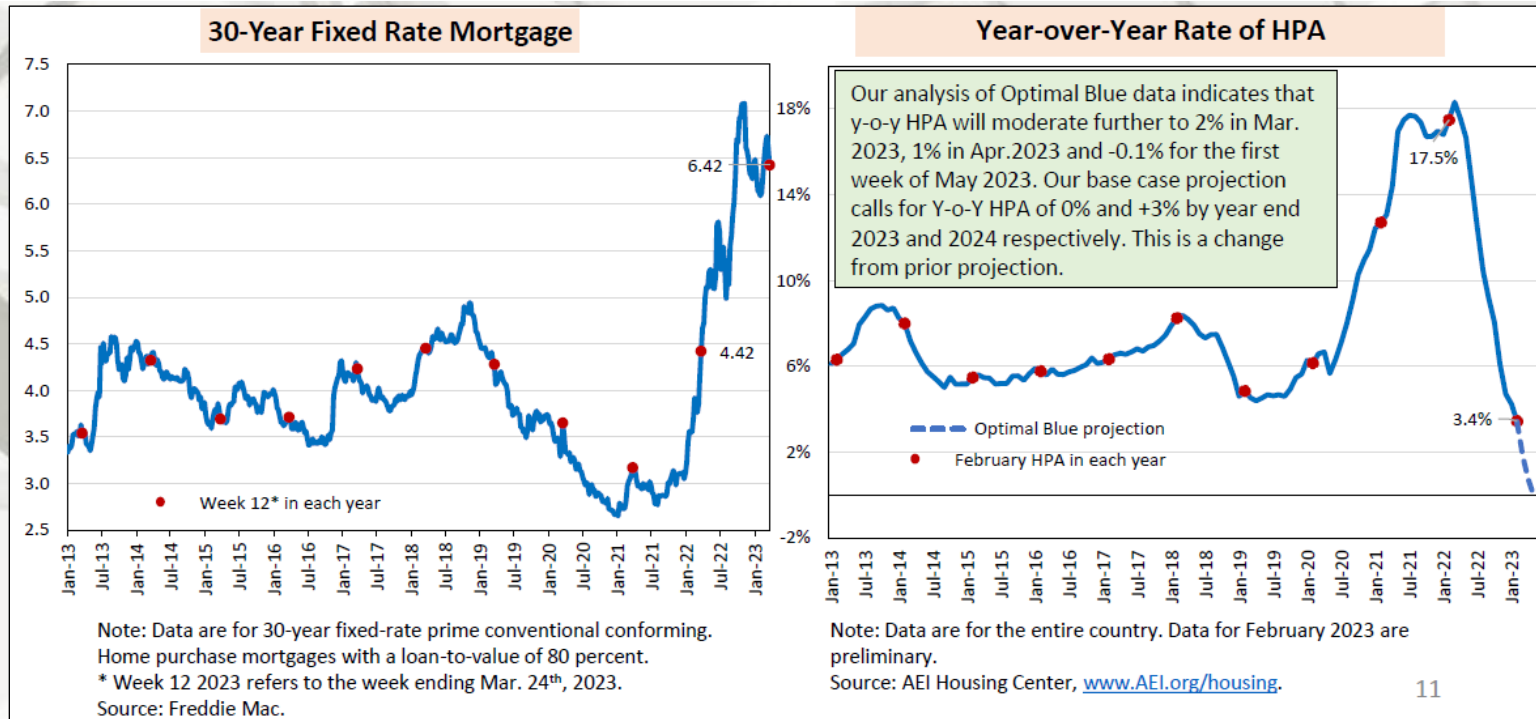
U.S. Housing Affordability



Urban Institute First-time Home Buyers

“In January 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 50.7 percent; the VA share was 52.7 percent. ...” – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability



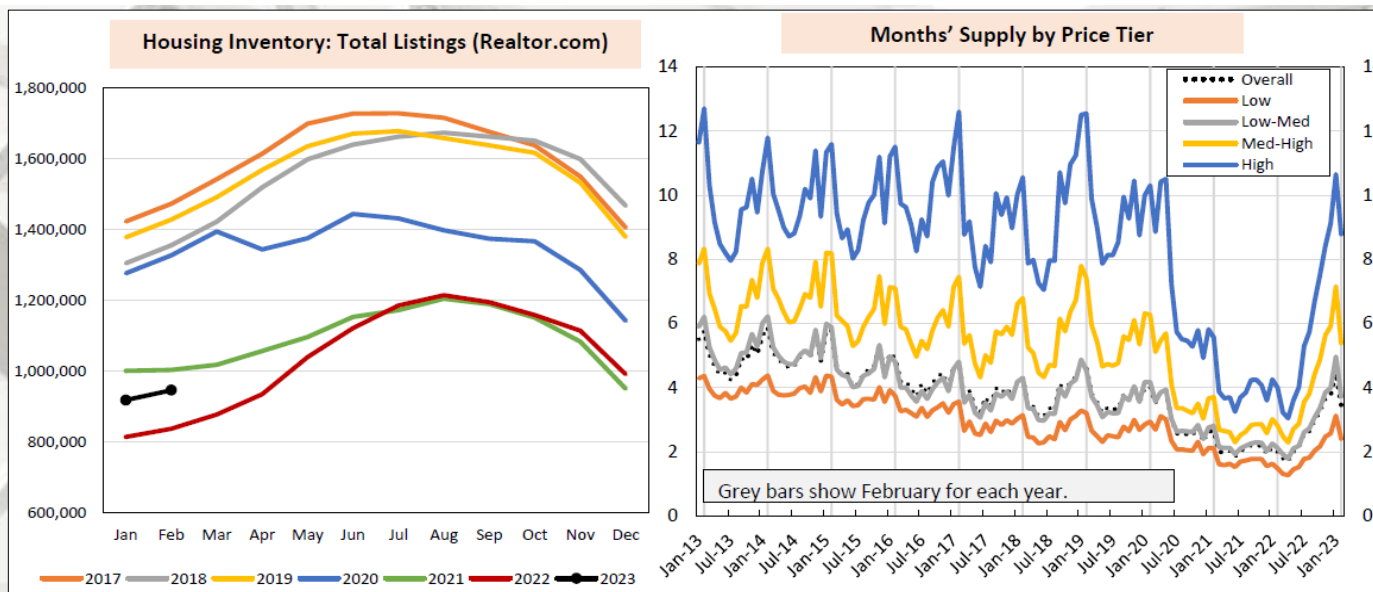
AEI Housing Center

Year over Year Home Price Appreciation (HPA) Decline Slowed Down as Month over Month HPA Remained Positive for the 2nd Consecutive Month

“February 2023’s YoY HPA was 3.4%, which is down from 4.2% a month ago and a significant drop from the YoY peak of 18.3% in March 2022. A year ago February 2022 YoY HPA was at 17.5%.

- February 2023’s MoM HPA was 1.2%, confirming a trend reversal from the MoM HPA declines in earlier months.
- Given historically low supply, strong job numbers, low foreclosures, work from home, and continued home price arbitrage opportunities, 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

“February months’ remaining supply (not seasonally adjusted) dropped to 3.4 months from 4.5 months in January 2023 as demand increased . Housing inventory continued to run below pre pandemic levels and remains at sellers’ market levels.

- February 2023 overall inventory was up 13% 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 3.4 months in February 2023, down from the pre pandemic level of 4.0 months in February 2020, and down from 4.5 months in January 2023 (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

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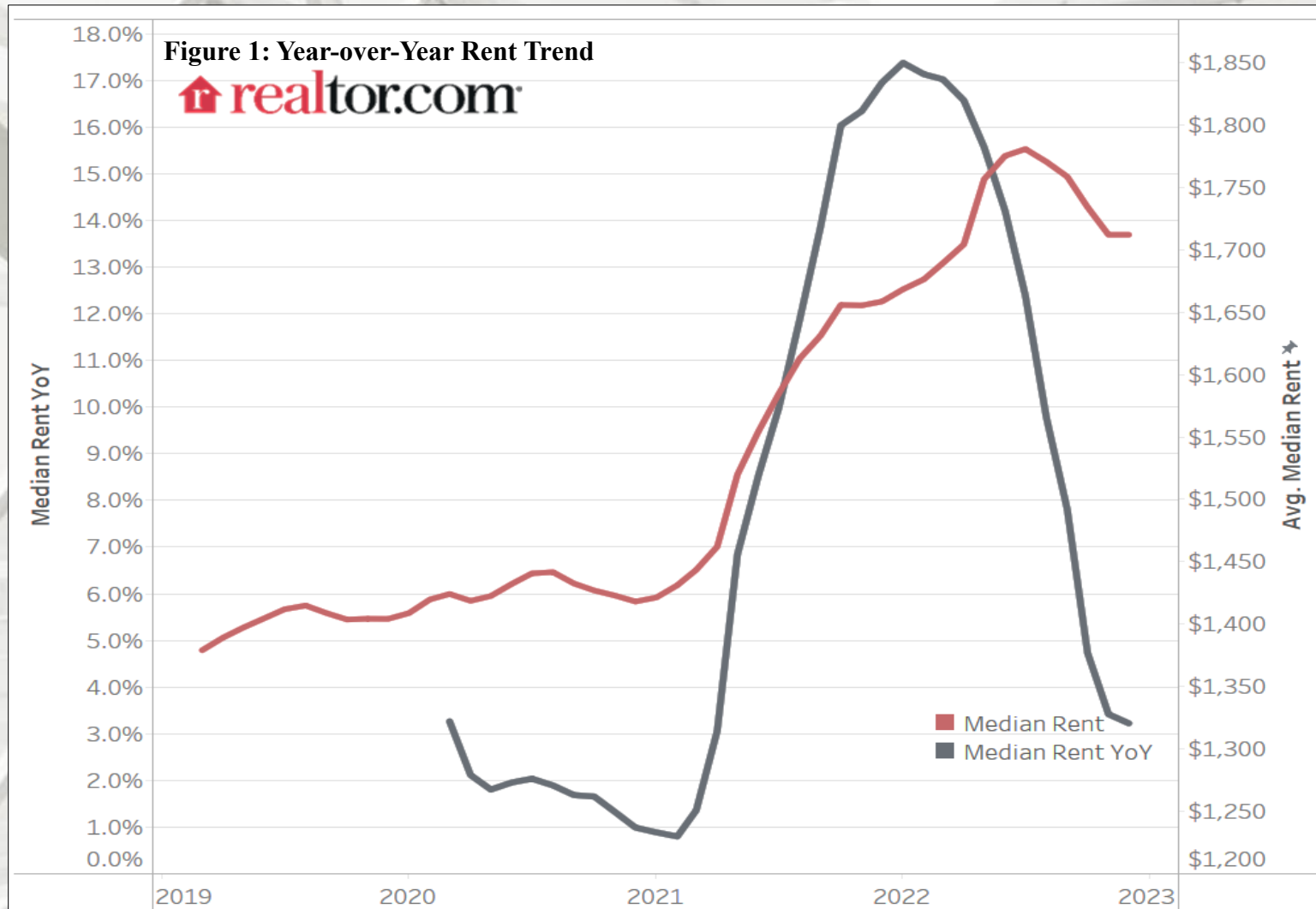
February Rental Report: Despite Rent Growth, Renting a Starter Home is More Affordable than Buying

“Highlights

- With the year-over-year growth rate slowing to 3.2% in February, 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 February (\$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 February 2022, the lowest growth rate in 20 months, down notably from February’s peak trend (17.4%). However, after four months of declines, median asking rent plateaued in February (\$1,712). It is down by \$69 from the peak (July 2022) and is still \$308 (21.9%) higher than February 2019 (pre-pandemic).” – Jiayi Xu and Danielle Hale, Realtor.com®

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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 February 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 February 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®

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The advantage of renting is growing in rent-favoring markets

“Slowing rent growth contributed to this shift: in February 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 February 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 February 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 February 2021 and June 2022, 11 metros that were previously more favorable for buying became more favorable for renting instead. In February 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®

Source: <https://www.realtor.com/research/February-2022-rent/>; 3/23/23

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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 February, 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 February. 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 February 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

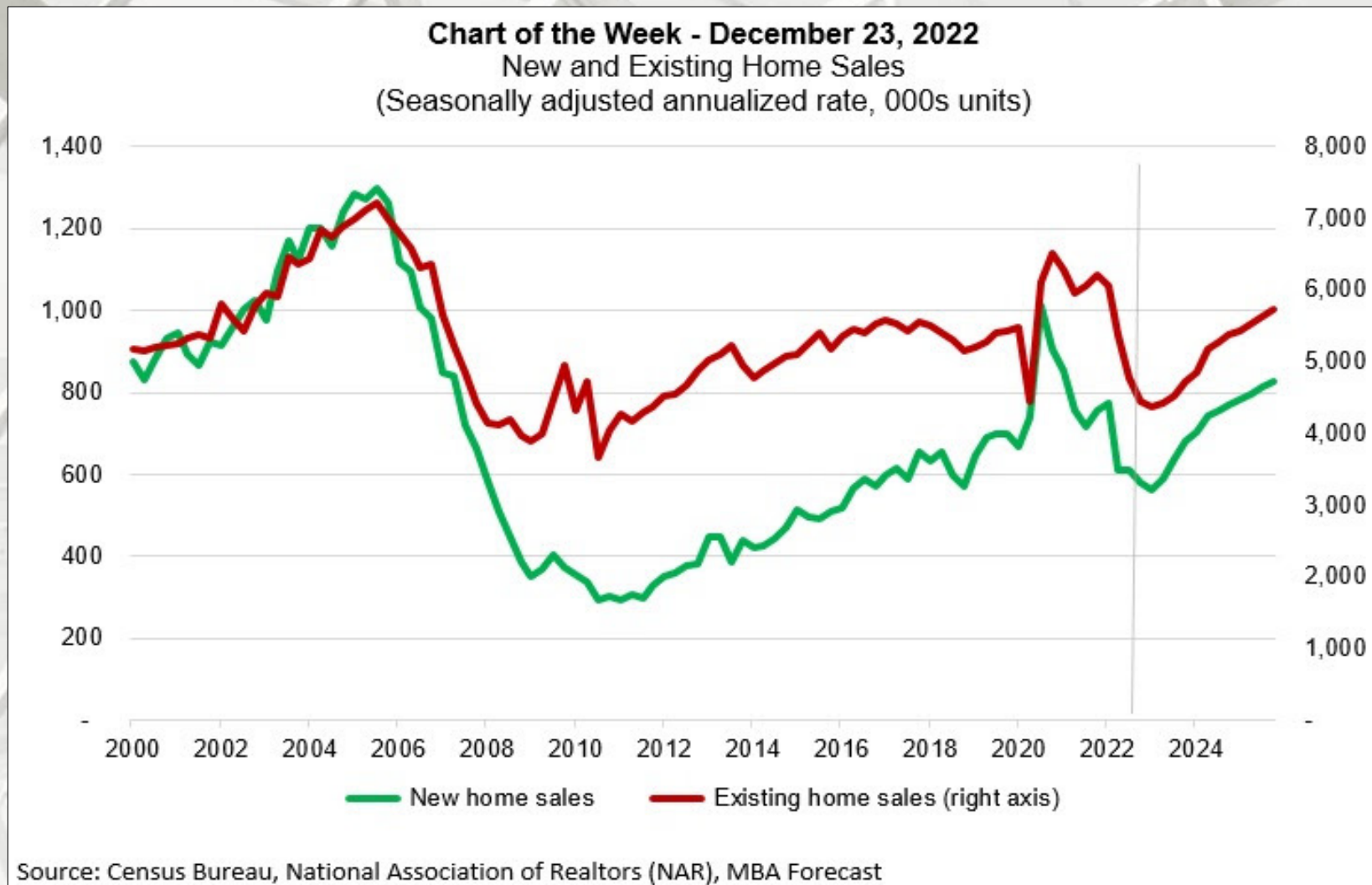
“Recent data from NAR showed that the annualized pace of existing home sales in February 2022 was 4.09 million units – a 35% drop compared to February 2021. This decrease was consistent with the pace of home purchase applications, which have been running around 40% behind last year’s pace over the past 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 February, 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 Increased in March

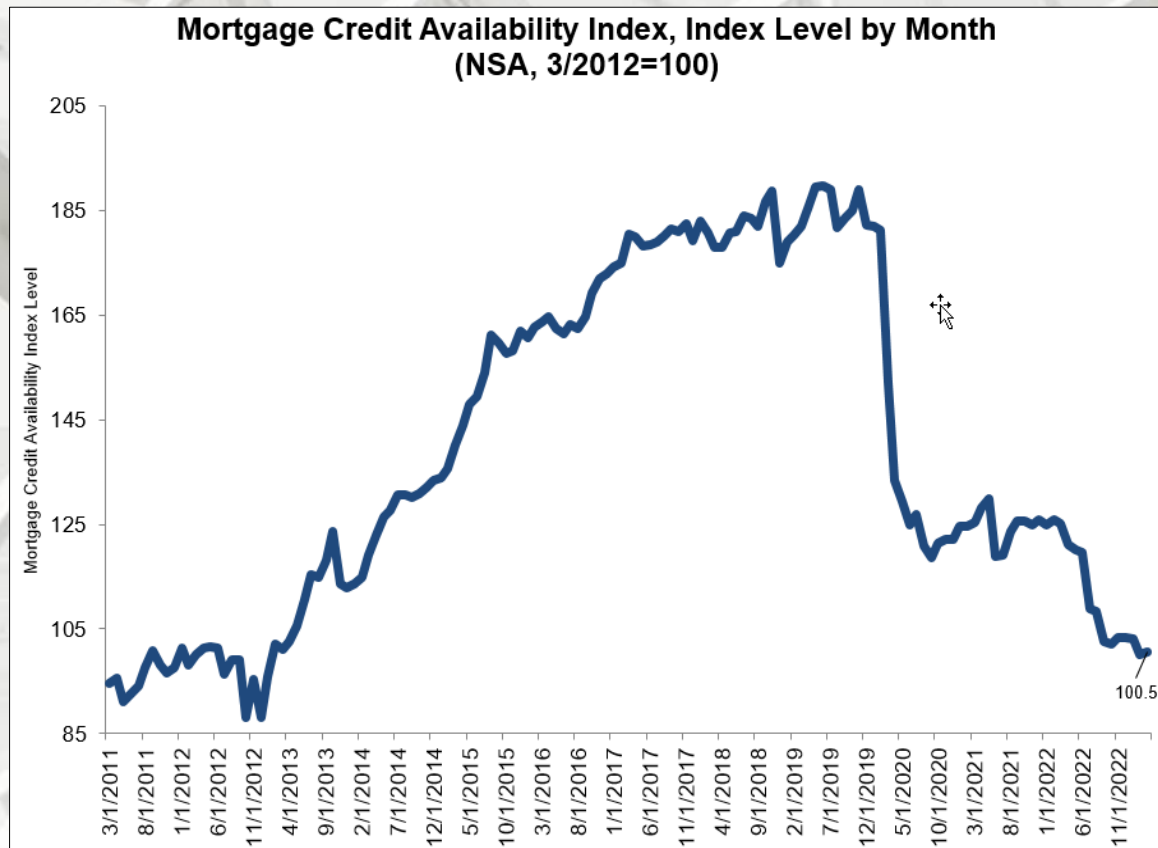
“Mortgage credit availability increased in March according to the Mortgage Credit Availability Index (MCAI), a report from the Mortgage Bankers Association (MBA) that analyzes data from ICE Mortgage Technology.

The MCAI rose by 0.4 percent to 100.5 in March. 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 increased 1.1 percent, while the Government MCAI decreased by 0.2 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.4 percent, and the Conforming MCAI rose by 0.4 percent.

Mortgage credit supply increased modestly in March but remained close to its tightest levels since 2013. With the spring buying season underway, lenders are grappling with the threat of a recession and tighter overall financial conditions following the recent bank failures. The supply of government mortgage credit – which includes FHA and VA loans that many first-time homebuyers rely on – declined for the third time in four months, which could potentially hinder first-time buyer activity. There was a small increase in credit availability for jumbo loans, with more programs offered for cash-out refinances. However, we expect banks, which account for most of the jumbo market, will tighten jumbo credit criteria in response to recent challenges in the banking sector.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance

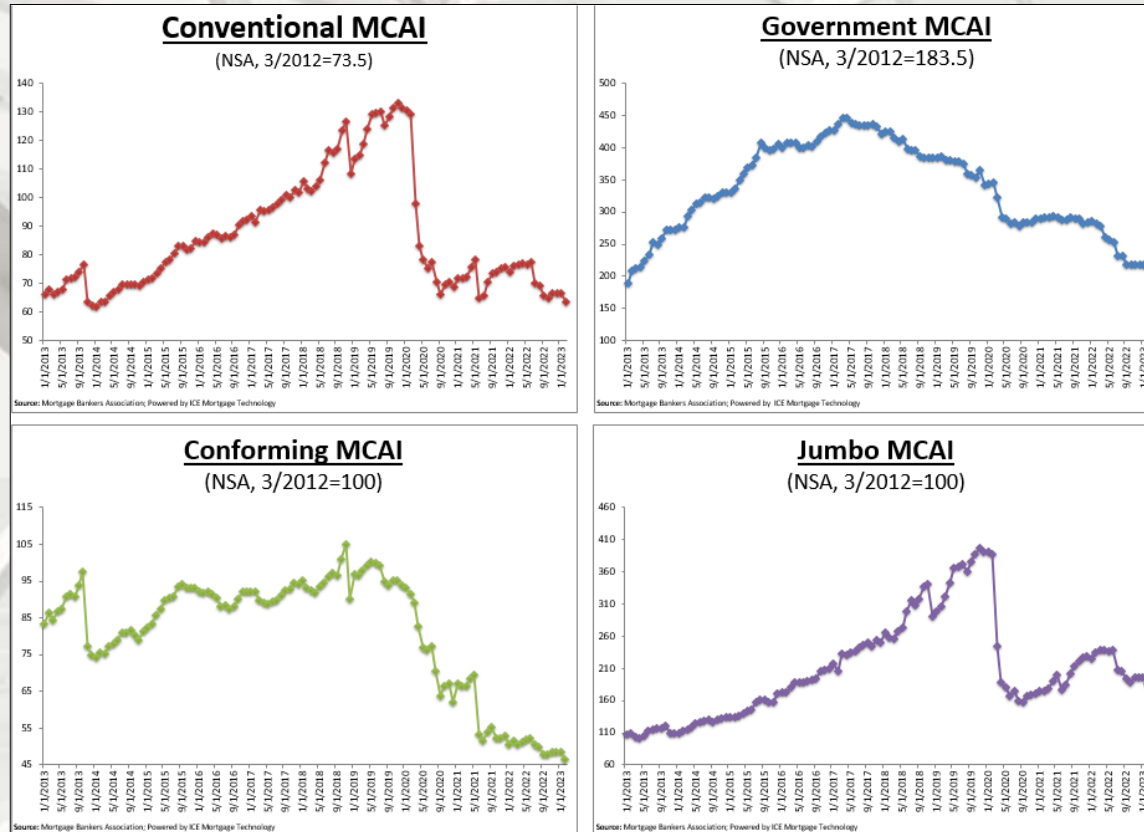
Mortgage Credit Availability (MBA)



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®

Conventional, Government, Conforming, and Jumbo MCAI Component Indices

“The MCAI rose by 0.4 percent to 100.5 in March. The Conventional MCAI increased 1.1 percent, while the Government MCAI decreased by 0.2 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.4 percent, and the Conforming MCAI rose by 0.4 percent.” – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast

March 20, 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	1,405	1,393	1,395	1,398	1,404	1,460	1,529	1,560	1,587	1,556	1,398	1,534	1,634
Single-Family	1,187	1,086	905	848	841	874	906	928	1,008	1,087	1,140	1,168	1,007	887	1,101	1,205
Two or More	533	561	545	557	552	521	492	476	452	442	420	419	549	510	433	429
Home Sales (SAAR, Thous)																
Total Existing Homes	6,057	5,373	4,770	4,177	4,068	4,145	4,266	4,403	4,722	4,964	5,160	5,204	5,094	4,221	5,013	5,403
New Homes	776	609	580	605	632	588	613	646	698	730	763	769	643	620	740	789
FHFA US House Price Index (YOY % Change)																
Median Price of Total Existing Homes (Thous \$)	365.8	405.9	391.5	372.8	356.8	359.1	362.2	367.2	366.6	372.9	373.4	376.2	384.0	361.3	372.3	386.5
Median Price of New Homes (Thous \$)	431.3	447.0	465.4	473.6	428.1	431.8	432.1	433.7	425.4	433.5	436.0	438.4	454.3	431.4	433.3	446.3
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	3.4	3.3	3.1	3.1	3.1	2.9	2.8	3.8	3.1	2.8	2.5
Mortgage Originations																
Total 1- to 4-Family (Bil \$)	689	678	480	398	333	461	509	541	473	633	608	590	2,245	1,844	2,304	2,468
Purchase	381	477	388	332	267	365	383	397	327	479	441	422	1,578	1,412	1,669	1,783
Refinance	308	201	92	66	66	96	126	144	146	154	167	168	667	432	635	685
Refinance Share (%)	45	30	19	17	20	21	25	27	31	24	27	28	30	23	28	28
FHA Originations (Bil \$)													158	125	140	139
Total 1- to 4-Family (000s loans)	1,939	1,789	1,206	973	816	1,125	1,247	1,331	1,180	1,574	1,527	1,490	5,907	4,519	5,771	6,200
Purchase	1,000	1,202	946	790	634	862	902	937	777	1,146	1,061	1,019	3,938	3,335	4,003	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	28	30	34	27	31	32	33	26	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.
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MBA Economic Forecast

MBA Economic Forecast

March 20, 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	2.7	-0.1	-0.6	1.0	1.9	2.0	1.9	1.8	1.8	0.9	0.5	1.9	1.8
Personal Consumption Expenditures	1.3	2.0	2.3	1.4	2.2	-0.6	1.2	1.4	1.5	1.3	1.5	1.8	1.8	1.0	1.5	2.2
Business Fixed Investment	7.9	0.1	6.2	3.3	-0.5	-1.5	0.1	1.4	1.5	1.8	1.3	1.2	4.3	-0.1	1.5	1.5
Residential Investment	-3.1	-17.8	-27.1	-25.9	-5.5	-6.5	7.1	10.3	14.4	15.5	12.8	9.8	-19.0	1.1	13.1	4.5
Govt. Consumption & Investment	-2.3	-1.6	3.7	3.6	2.0	0.7	1.9	1.0	1.0	0.9	0.8	0.9	0.8	1.4	0.9	0.8
Net Exports (Bil. Chain 2012\$)	-1260.3	-1207.6	-1063.8	-1037.3	-1033.9	-1027.6	-1018.3	-1014.6	-1038.4	-1060.5	-1076.4	-1094.2	-1142.3	-1023.6	-1067.4	-1144.7
Inventory Investment (Bil. Chain 2012\$)	182.4	93.7	32.9	115.9	32.1	33.3	4.6	8.4	23.8	38.4	45.3	50.2	106.2	19.6	39.4	56.5
Consumer Prices (YOY)	8.0	8.6	8.3	7.1	5.7	4.2	3.9	3.5	3.1	2.7	2.3	2.2	7.1	3.5	2.2	2.0
Percent																
Unemployment Rate	3.8	3.6	3.5	3.6	3.6	4.0	4.3	4.8	4.8	4.6	4.5	4.4	3.6	4.2	4.6	4.2
Federal Funds Rate	0.375	1.625	3.125	4.375	4.875	4.875	4.875	4.875	4.375	4.125	3.875	3.625	4.375	4.875	3.625	2.375
10-Year Treasury Yield	1.9	2.9	3.1	3.8	3.6	3.4	3.3	3.1	3.1	3.1	2.9	2.8	3.8	3.1	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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MBA

MORTGAGE BANKERS ASSOCIATION

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 February 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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