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

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

Housing data, year-over-year, were mostly positive. Total and single-starts, total and single-family housing under construction, and existing house sales declined month-over-month. Year-over-year, multi-family starts and permits, total and single-family housing under construction, and existing house sales decreased. The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability; thus, a reduction, to date, in total new and existing house sales for the 2023 calendar year.

The February 15th Atlanta Fed GDPNow™ total residential investment spending forecast is 0.8% for Q1 2024. Quarterly log change for new private permanent site expenditures were projected at 5.3%; the improvement spending forecast was -1.9%; and the manufactured/mobile home expenditures projection was -1.1% (all: quarterly log change and at a seasonally adjusted annual rate).[1]

"High borrowing costs and tight lending conditions proved to be no obstruction to the US economy powering ahead strongly through the second half of 2023. Nonetheless, that was when we still had abundant savings accrued through the pandemic that we could put to use. There is more and more evidence that much of this has been exhausted and this story is likely to be less supportive for the economy in 2024. With the cost of and access to borrowing being restrictive, this is a clear headwind that will help slow the economy through the first half of 2024 and make the Federal Reserve more amenable to the idea of interest rate cuts. We continue to predict a May start to the Fed's easing cycle." – James Knightley, Chief International Economist, ING Global Markets Research

This month's commentary contains 2024 housing forecasts, 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.

December 2023 Housing Scorecard

	M/M	Y/Y
Housing Starts	▼ 4.3%	▲ 7.6%
Single-Family (SF) Starts	▼ 8.6%	▲ 15.8%
Multi-Family (MF) Starts*	▲ 8.0%	▼ 7.9%
Housing Permits	▲ 1.8%	▲ 6.0%
SF Permits	▲ 2.3%	▲ 33.6%
MF Permits*	▲ 0.8%	▼ 25.3%
Housing Under Construction	▼ 0.4%	▼ 1.0%
SF Under Construction	▼ 1.2%	▼ 11.4%
Housing Completions	▲ 8.7%	▲ 13.2%
SF Completions	▲ 8.4%	▲ 6.1%
New SF House Sales	▲ 8.0%	▲ 4.4%
Private Residential Construction Spending	▲ 1.4%	▲ 6.8%
SF Construction Spending	▲ 1.6%	▲ 9.9%
Existing House Sales[1]	▼ 1.0%	▼ 6.2%

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

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

Sources: U.S. Department of Commerce-Construction; [1] FRED: Federal Reserve Bank of St. Louis

New Housing Starts

	Total Starts*	SF Starts	MF 2-4 Starts**	MF ≥5 Starts
December	1,460,000	1,027,000	16,000	417,000
November	1,525,000	1,124,000	13,000	388,000
2022	1,357,000	887,000	9,000	461,000
M/M change	-4.3%	-8.6%	23.1%	7.5%
Y/Y change	7.6%	15.8%	77.8%	-9.5%

* 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

SAAR = Seasonally adjusted annual rate; in thousands

Total starts 61-year average: 1,429 m units
SF starts 61-year average: 1,014 m units
MF starts 55-year average: 425 m units

Total Starts*		
1,460,000		
Total SF	1,027,000	70.3%
Total 2-4 MF	16,000	1.1%
Total ≥ 5 MF	417,000	28.6%

Y-axis: 0, 200, 400, 600, 800, 1,000, 1,200, 1,400, 1,600, 1,800

X-axis: 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022, Feb 2023, Apr 2023, Jun 2023, Aug 2023, Oct 2023, Dec 2023

Legend: —— SF Starts   —— 2-4 MF Starts   —— ≥ 5 MF Starts   NBER-based Recession Indicators

The 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

SAAR; in thousands

1,460
1,412

Legend:
- ● Total Starts: (monthly)
- ── Total Starts: 6-month Ave.

SF Housing Starts:
Six-Month Moving Average

SAAR; in thousands

1,027

972

● SF Starts: (monthly)   —— SF Starts: 6-month Ave.
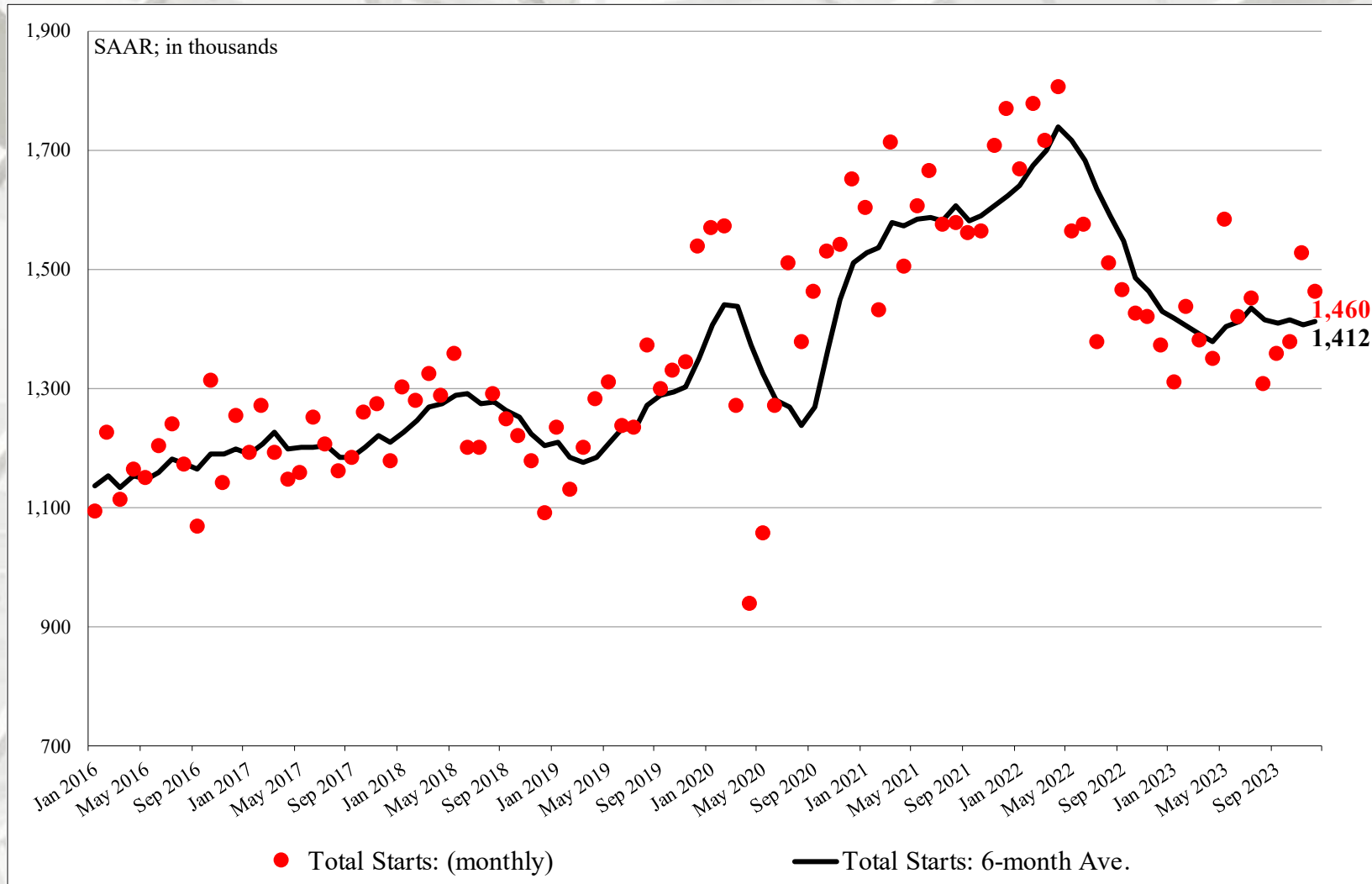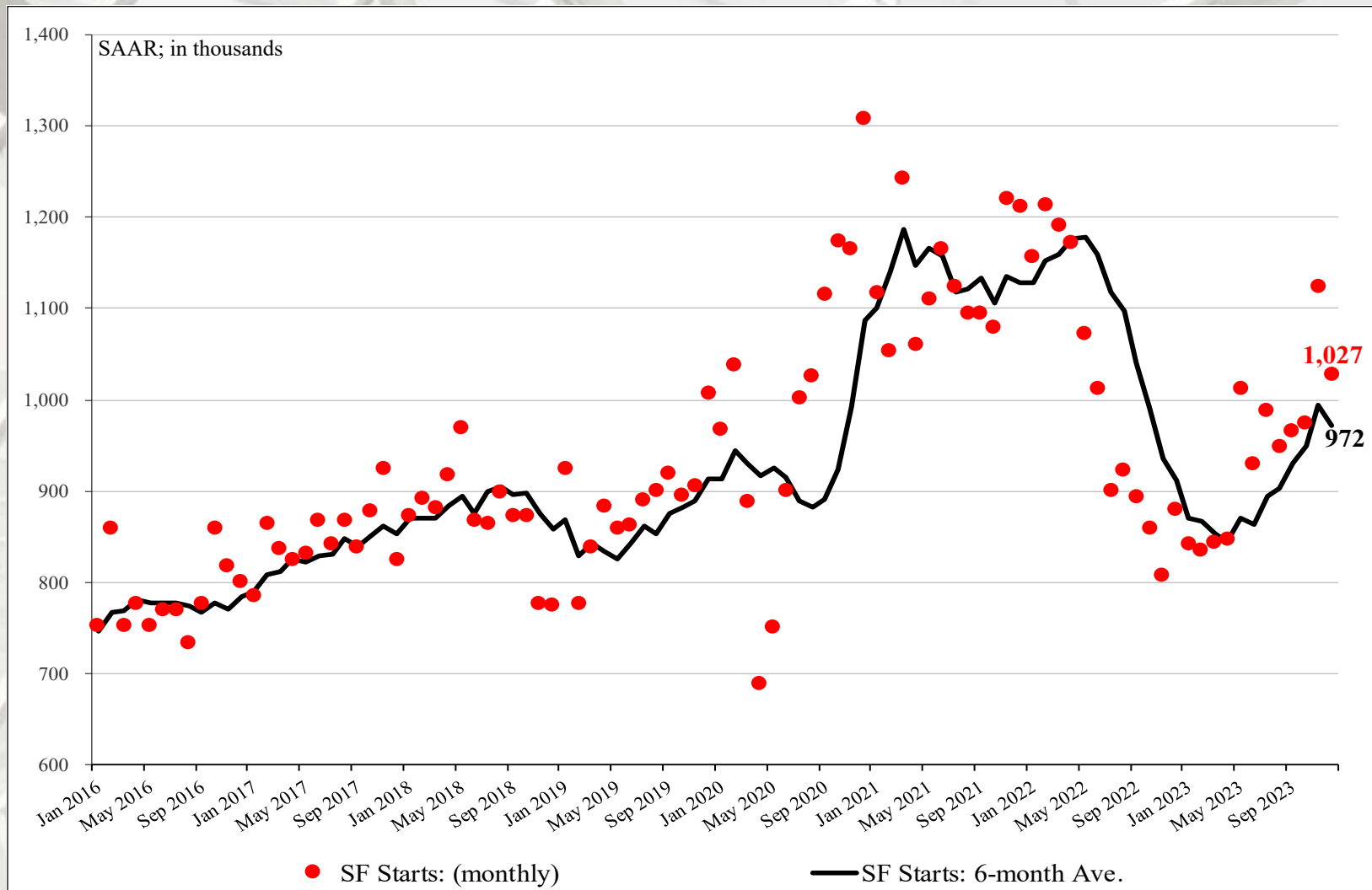
SF Housing Starts:
Year-over-Year Change (%)

1983: 61.1%

2008: -40.5%

December 2023: -8.6%

New SF Starts

20- to 54-year-old population/SF starts: 1/1/59 to 7/1/07 ratio: 0.0103

20- to 54-year-old classification: 11/23 ratio: 0.0076

Total non-institutionalized population/Start ratio: 1/1/59 to 7/1/07: 0.0066

Total: 11/23 ratio: 0.0043

Ratio: SF Housing Starts/Civilian Noninstitutional Population

Ratio: SF Housing Starts/Civilian Noninstitutional Population (20-54)
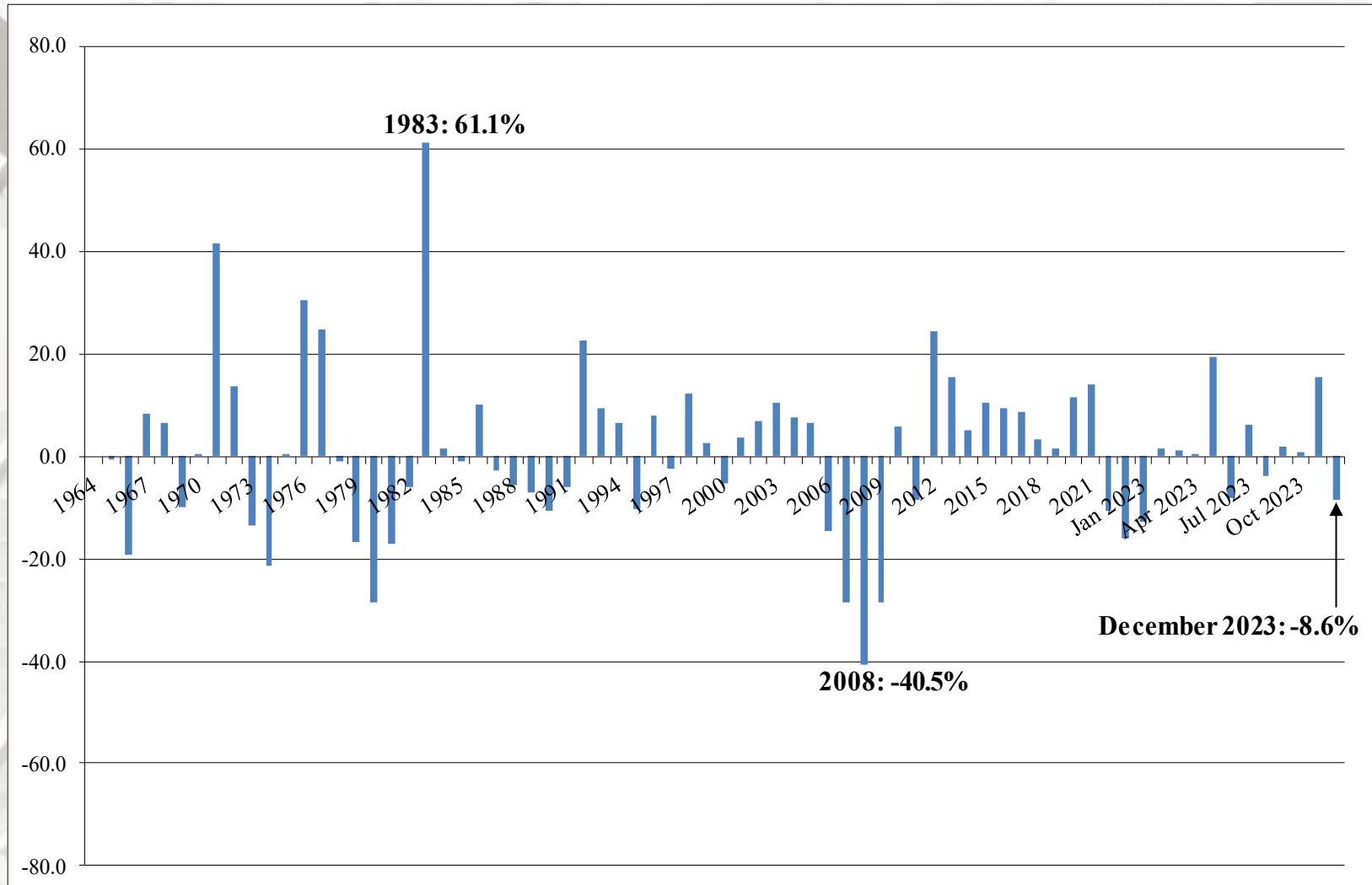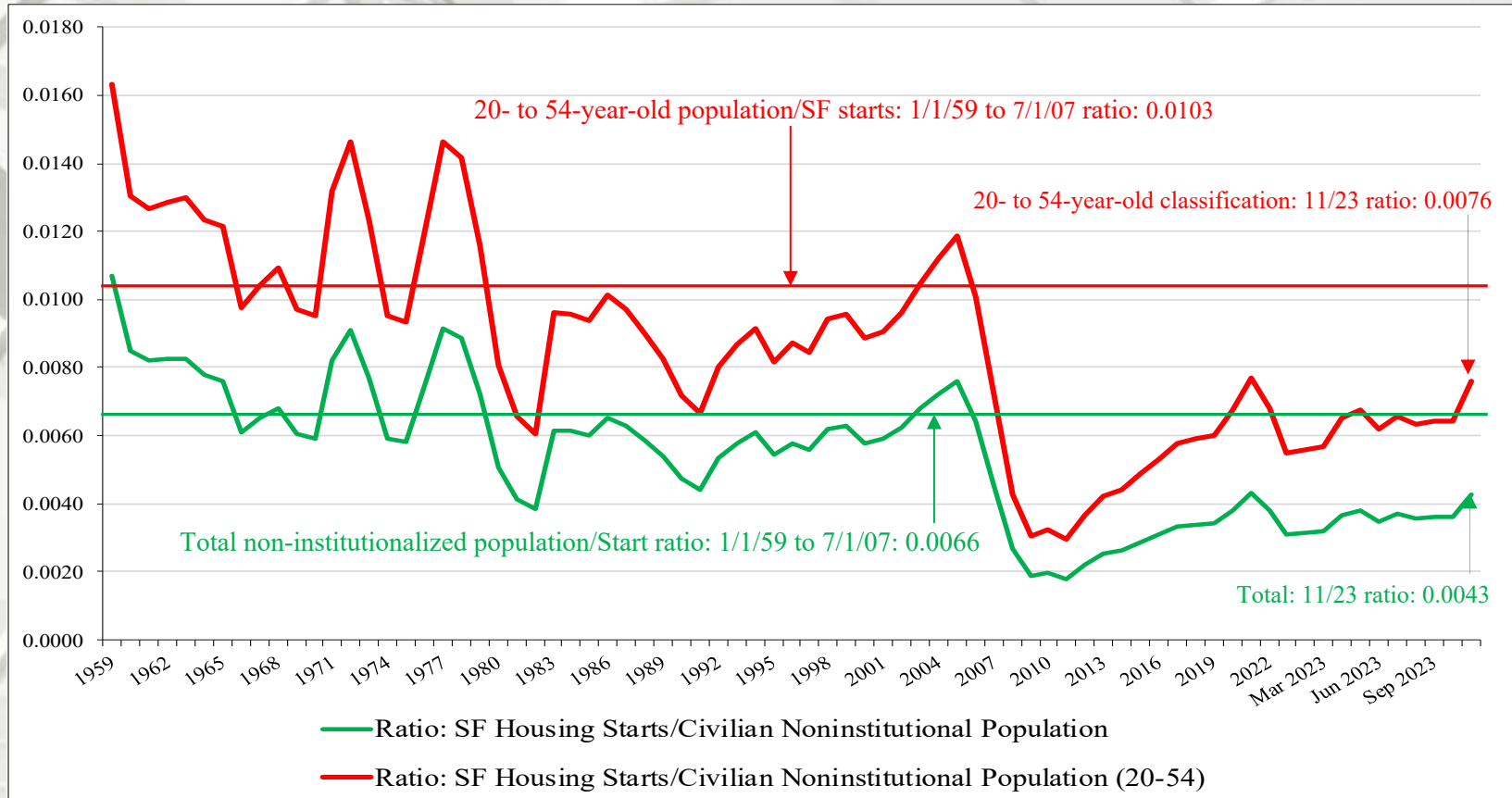
New SF starts adjusted for the US population

From January 1959 to December 2007, the long-term ratio of new SF starts to the total US non-institutionalized population is 0.0066. In December 2023 it was 0.0043 – increasing from October (0.0036). The long-term ratio of non-institutionalized population, aged 20 to 54 is 0.0103; in December 2023 it was 0.0076 –also an improvement from October (0.0064). 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

LHS: SAAR; in thousands

RHS: Non-adjusted; in thousands

December 2022 and December 2023

Legend: ── New SF Starts (adj)   Apparent Expansion Factor   ── New SF Starts (non-adj)
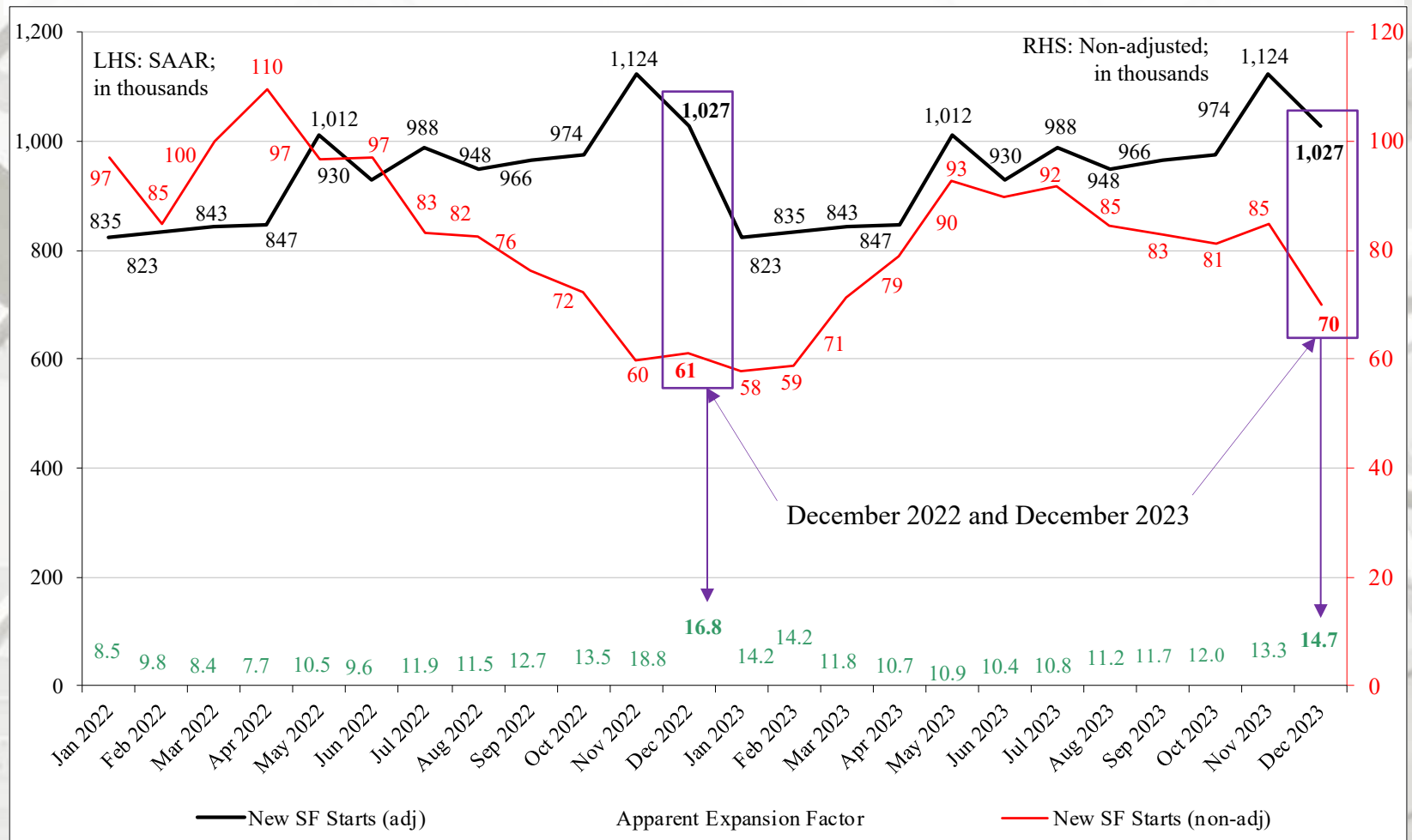
Nominal and Adjusted New SF Monthly Starts

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**
December	108,000	59,000	49,000
November	130,000	72,000	58,000
2022	203,000	125,000	78,000
M/M change	-16.9%	-18.1%	-15.5%
Y/Y change	-46.8%	-52.8%	-37.2%

	MW Total	MW SF	MW MF
December	187,000	128,000	59,000
November	205,000	169,000	36,000
2022	128,000	93,000	35,000
M/M change	-8.8%	-24.3%	63.9%
Y/Y change	46.1%	37.6%	68.6%

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**
December	787,000	588,000	199,000
November	829,000	633,000	196,000
2022	714,000	499,000	215,000
M/M change	-5.1%	-7.1%	1.5%
Y/Y change	10.2%	17.8%	-7.4%

	W Total	W SF	W MF
December	378,000	252,000	126,000
November	361,000	250,000	111,000
2022	312,000	170,000	142,000
M/M change	4.7%	0.8%	13.5%
Y/Y change	21.2%	48.2%	-11.3%

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

SAAR; in thousands

Total Regional Starts*		
Total NE	108,000	7.4%
Total MW	187,000	12.8%
Total S	787,000	53.9%
Total W	378,000	25.9%

—— Total NE Starts —— —— Total MW Starts —— —— Total S Starts —— —— Total W Starts ——
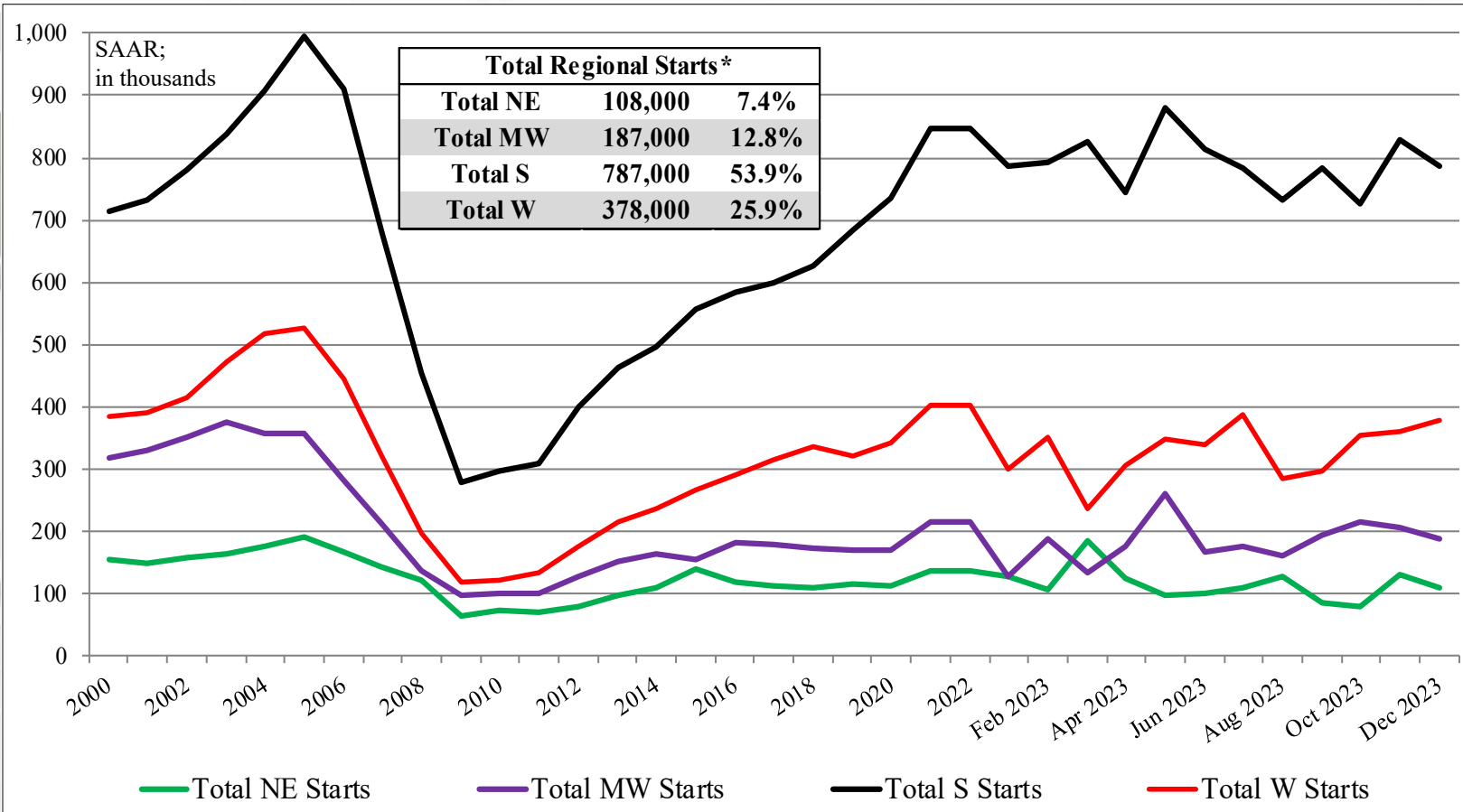
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family starts directly; this is an estimation (Total starts – (SF + ≥ 5 MF starts).

* Percentage of total starts.

Total SF Housing Starts by Region
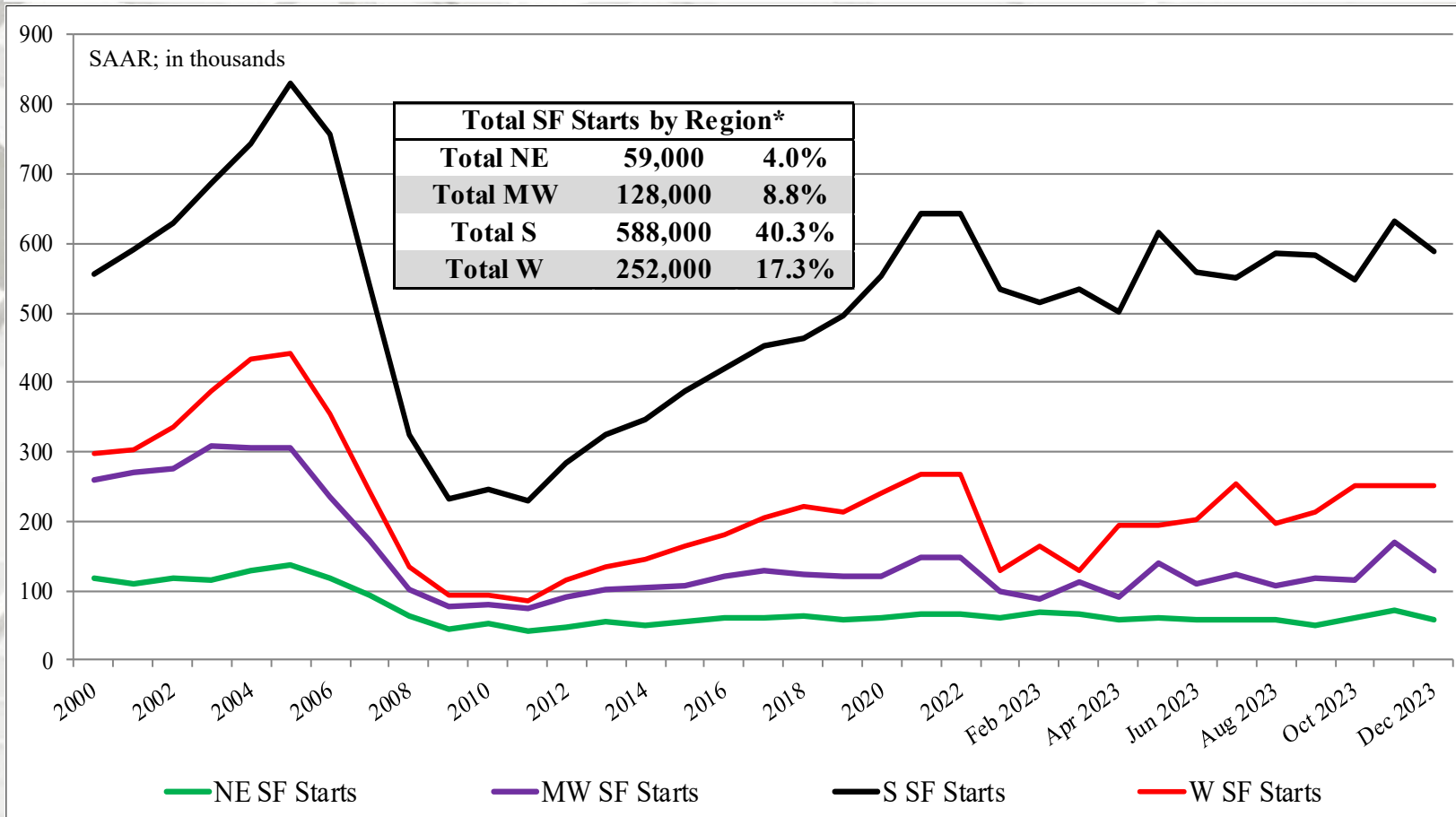
SAAR; in thousands

Total SF Starts by Region*		
Total NE	**59,000**	**4.0%**
Total MW	**128,000**	**8.8%**
Total S	**588,000**	**40.3%**
Total W	**252,000**	**17.3%**

Legend: ── NE SF Starts ── MW SF Starts ── S SF Starts ── W SF Starts

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
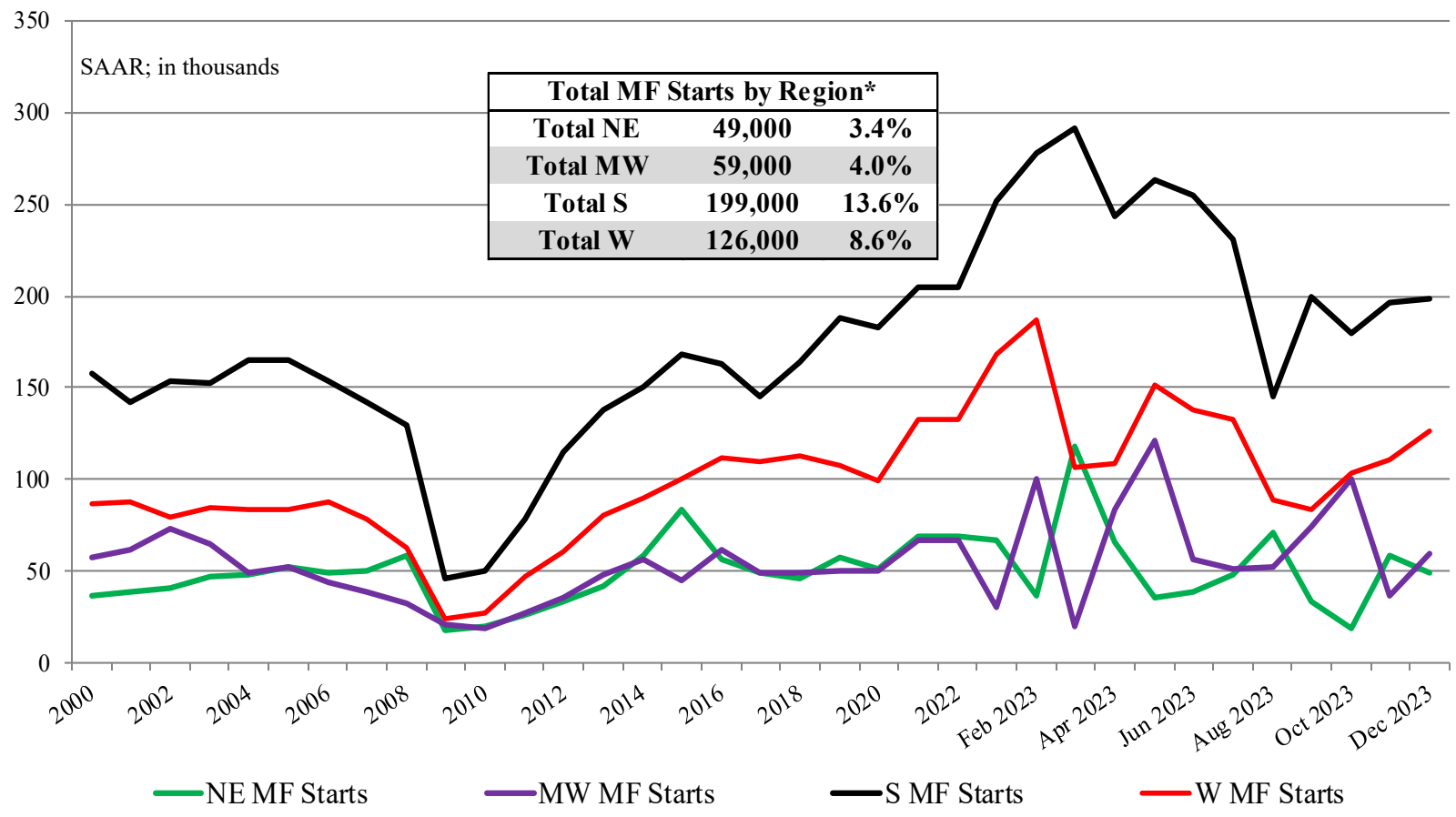
SAAR; in thousands

Total MF Starts by Region*		
Total NE	49,000	3.4%
Total MW	59,000	4.0%
Total S	199,000	13.6%
Total W	126,000	8.6%

Legend: — NE MF Starts — MW MF Starts — S MF Starts — W MF Starts

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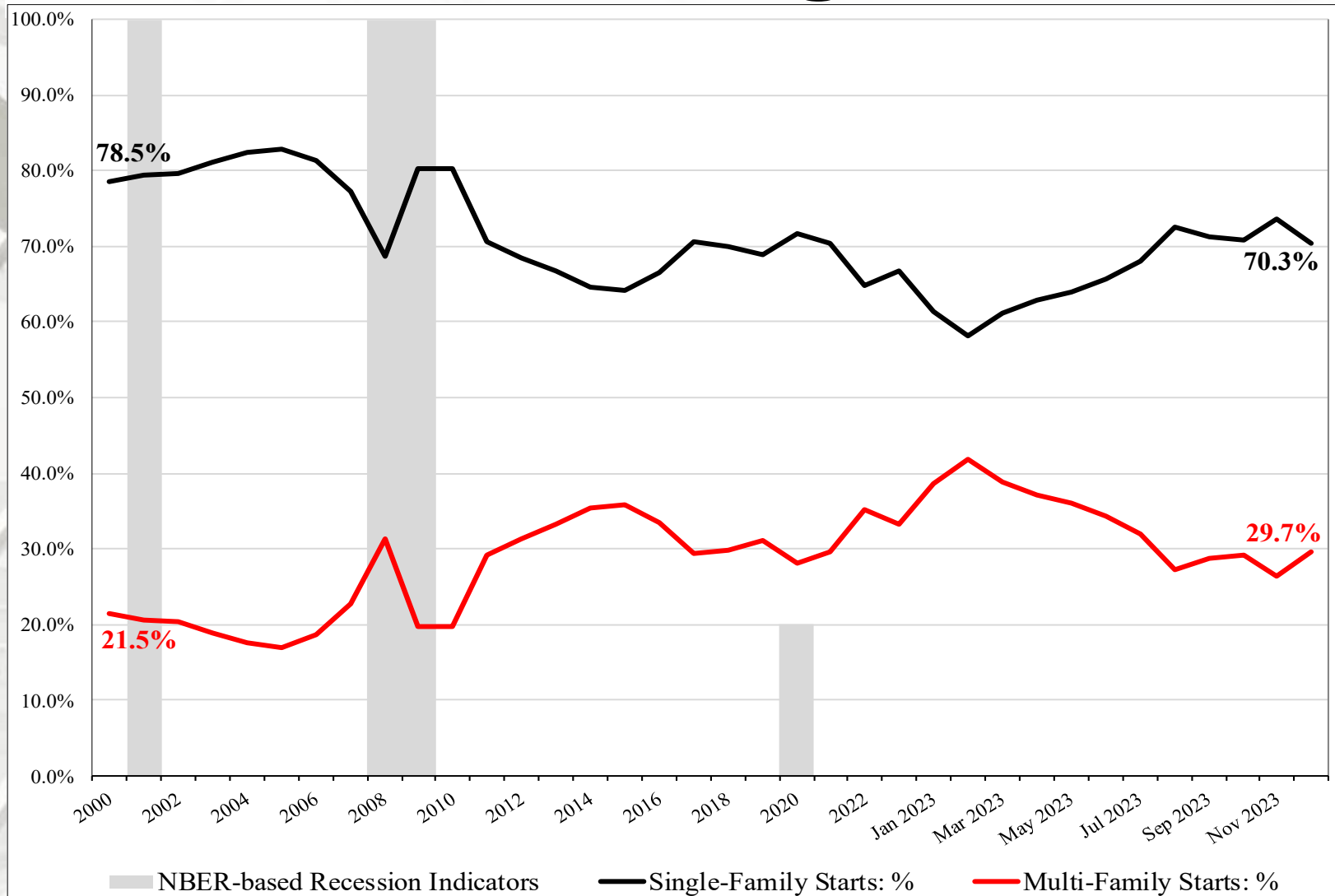
NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

Legend: NBER-based Recession Indicators | Single-Family Starts: % | Multi-Family Starts: %

Data labels: 78.5%, 70.3%, 21.5%, 29.7%

New Housing Permits

	Total Permits*	SF Permits	MF 2-4 unit Permits	MF ≥ 5 unit Permits
December	1,493,000	999,000	49,000	445,000
November	1,467,000	977,000	47,000	443,000
2022	1,409,000	748,000	49,000	612,000
M/M change	1.8%	2.3%	4.3%	0.5%
Y/Y change	6.0%	33.6%	0.0%	-27.3%

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

Total New Housing Permits

SAAR; in thousands

Total Permits*		
1,493,000		
Total SF	999,000	66.9%
Total 2-4 MF	49,000	3.3%
Total ≥ 5 MF	445,000	29.8%

NBER-based Recession Indicators — SF Permits — 2-4 MF Permits — ≥ 5 MF 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**
December	98,000	51,000	47,000
November	84,000	57,000	27,000
2022	123,000	58,000	65,000
M/M change	16.7%	-10.5%	74.1%
Y/Y change	-20.3%	-12.1%	-27.7%

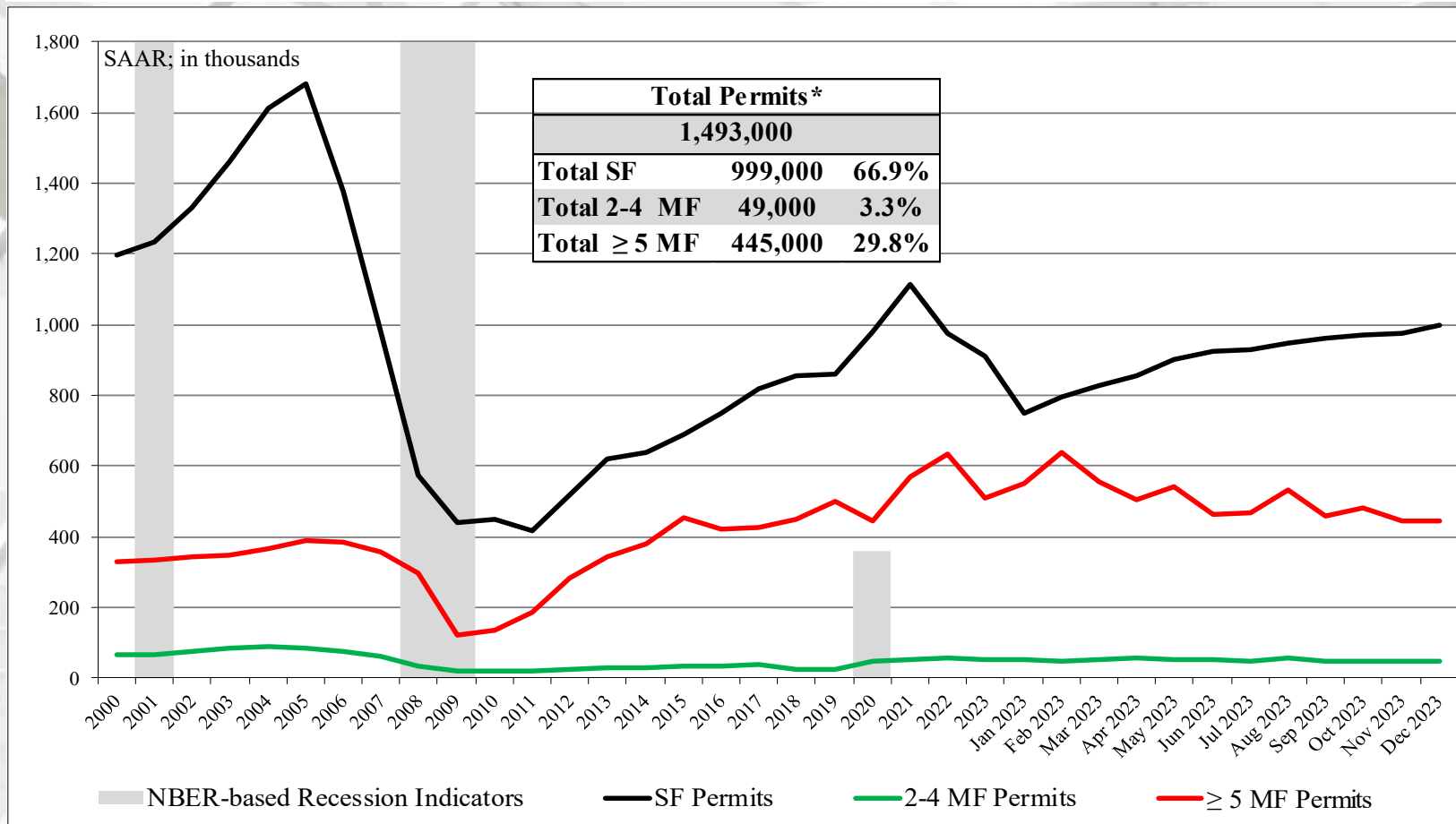|	MW Total*	MW SF	MW MF**
December	197,000	122,000	75,000
November	190,000	117,000	73,000
2022	184,000	95,000	89,000
M/M change	3.7%	4.3%	2.7%
Y/Y change	7.1%	28.4%	-15.7%

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**
December	860,000	598,000	262,000
November	793,000	581,000	212,000
2022	777,000	448,000	329,000
M/M change	8.4%	2.9%	23.6%
Y/Y change	10.7%	33.5%	-20.4%

	W Total*	W SF	W MF**
December	338,000	228,000	110,000
November	400,000	222,000	178,000
2022	325,000	147,000	178,000
M/M change	-15.5%	2.7%	-38.2%
Y/Y change	4.0%	55.1%	-38.2%

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

SAAR; in thousands

Total Regional Permits*

Total NE	98,000	6.6%
Total MW	197,000	13.2%
Total S	860,000	57.6%
Total W	338,000	22.6%

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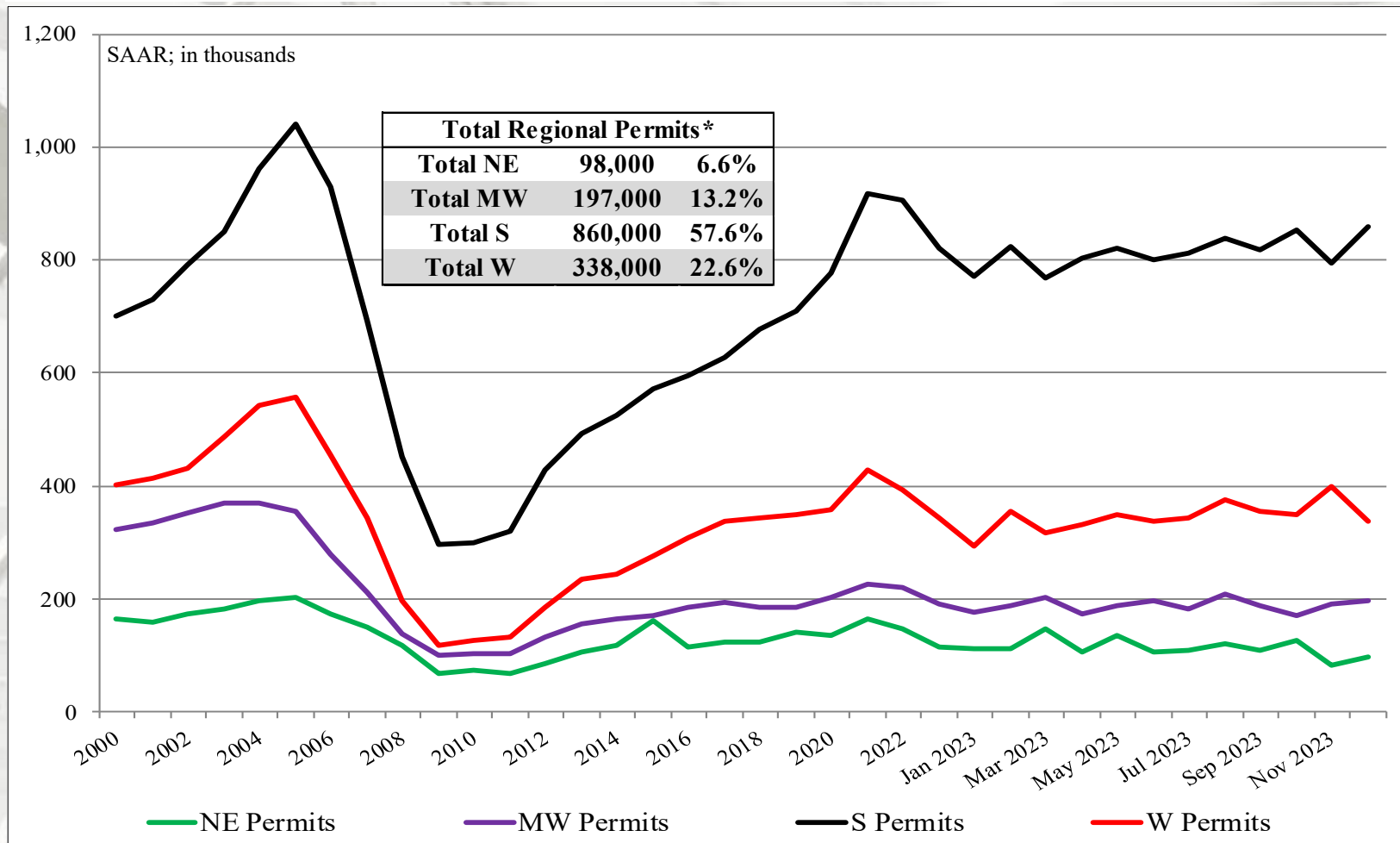
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

SF Housing Permits by Region
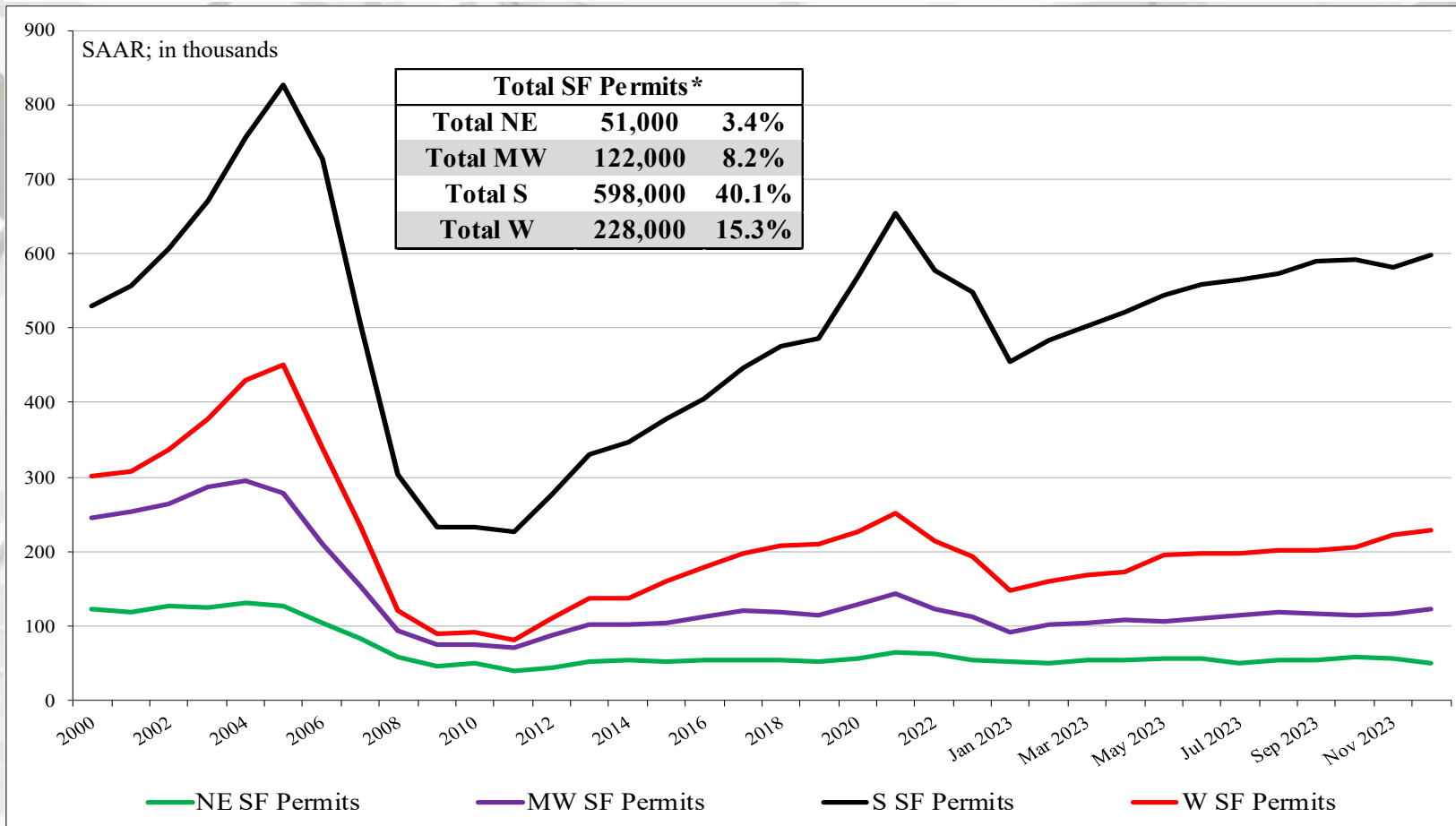
SAAR; in thousands

Total SF Permits*		
Total NE	51,000	3.4%
Total MW	122,000	8.2%
Total S	598,000	40.1%
Total W	228,000	15.3%

Legend:
— NE SF Permits
— MW SF Permits
— S SF Permits
— W SF Permits

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

* Percentage of total permits.

Source: https://www.census.gov/construction/bps/; 1/25/24

MF Housing Permits by Region

SAAR; in thousands

Total MF Permits*		
Total NE	47,000	3.1%
Total MW	75,000	5.0%
Total S	262,000	17.5%
Total W	110,000	7.4%

— NE MF Permits   — MW MF Permits   — S MF Permits   — W MF Permits
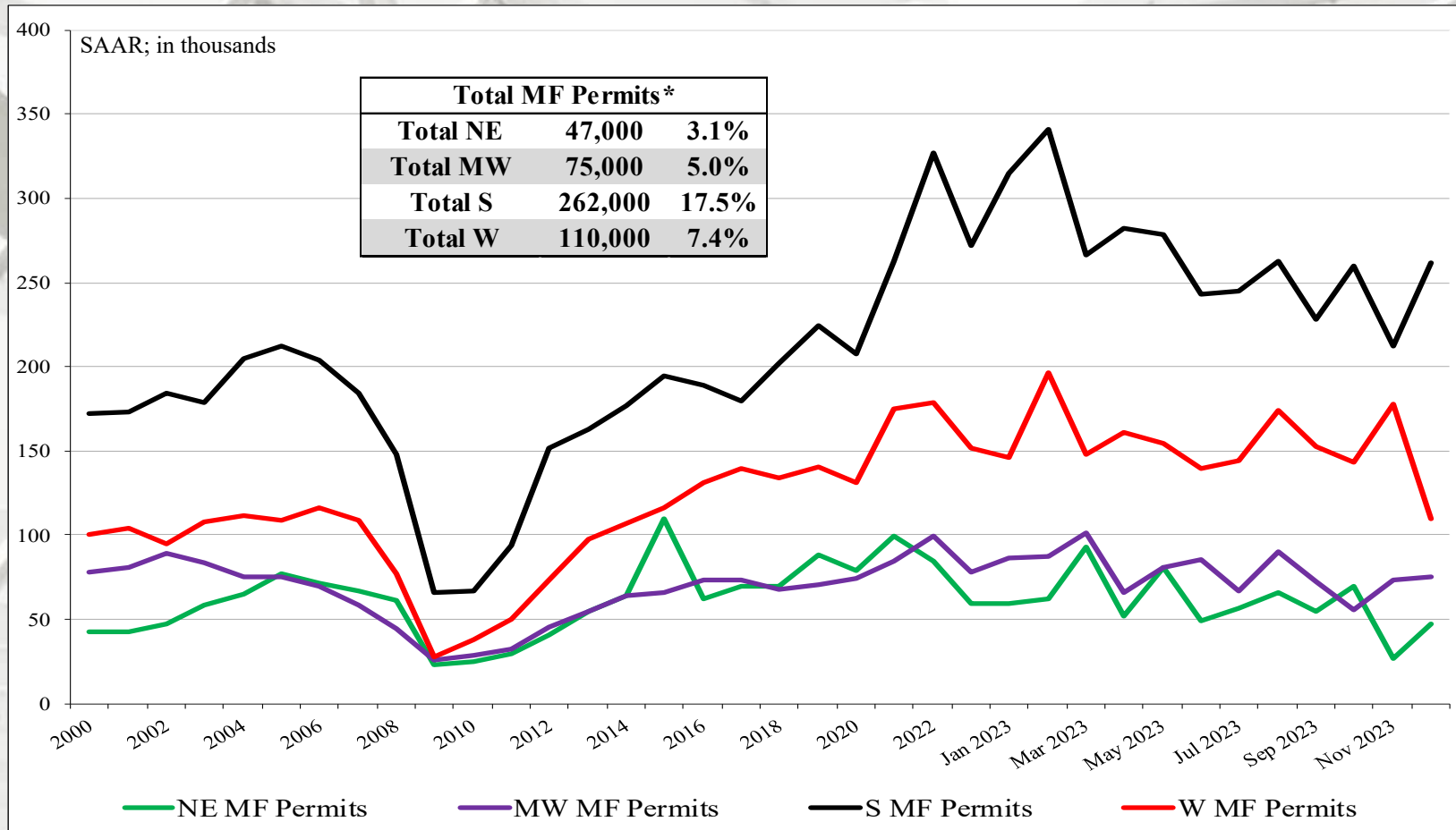
NE = Northeast, MW = Midwest, S = South, W = West

* Percentage of total permits.

New Housing Under Construction (HUC)

	Total HUC	SF HUC	MF 2-4 unit** HUC	MF ≥ 5 unit HUC
December	1,679,000	671,000	17,000	991,000
November	1,685,000	679,000	17,000	989,000
2022	1,696,000	757,000	16,000	923,000
M/M change	-0.4%	-1.2%	0.0%	0.2%
Y/Y change	-1.0%	-11.4%	6.3%	7.4%

All housing under construction (HUC) 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
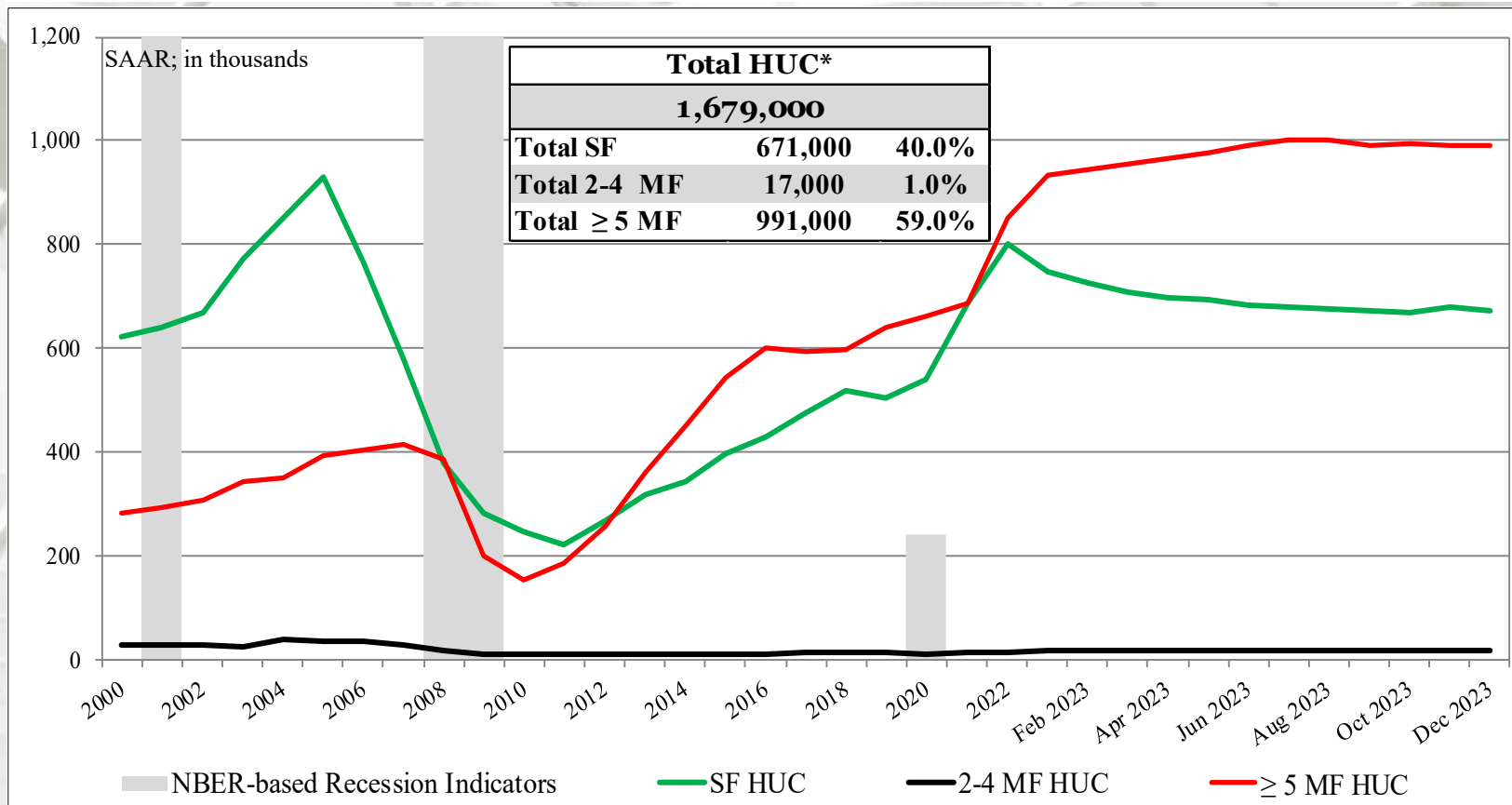
SAAR; in thousands

Total HUC*		
1,679,000		
Total SF	671,000	40.0%
Total 2-4 MF	17,000	1.0%
Total ≥ 5 MF	991,000	59.0%

Legend:
- NBER-based Recession Indicators
- SF HUC
- 2-4 MF HUC
- ≥ 5 MF HUC

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

* Percentage of total housing under construction units.

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

New Housing Under Construction by Region

	NE Total	NE SF	NE MF**
December	207,000	65,000	142,000
November	212,000	67,000	145,000
2022	218,000	67,000	151,000
M/M change	-2.4%	-3.0%	-2.1%
Y/Y change	-5.0%	-3.0%	-6.0%

	MW Total	MW SF	MW MF
December	216,000	91,000	125,000
November	213,000	92,000	121,000
2022	218,000	101,000	117,000
M/M change	1.4%	-1.1%	3.3%
Y/Y change	-0.9%	-9.9%	6.8%

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**
December	776,000	342,000	434,000
November	784,000	350,000	434,000
2022	789,000	400,000	389,000
M/M change	-1.0%	-2.3%	0.0%
Y/Y change	-1.6%	-14.5%	11.6%

	W Total	W SF	W MF
December	480,000	173,000	307,000
November	476,000	170,000	306,000
2022	471,000	189,000	282,000
M/M change	0.8%	1.8%	0.3%
Y/Y change	1.9%	-8.5%	8.9%

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).

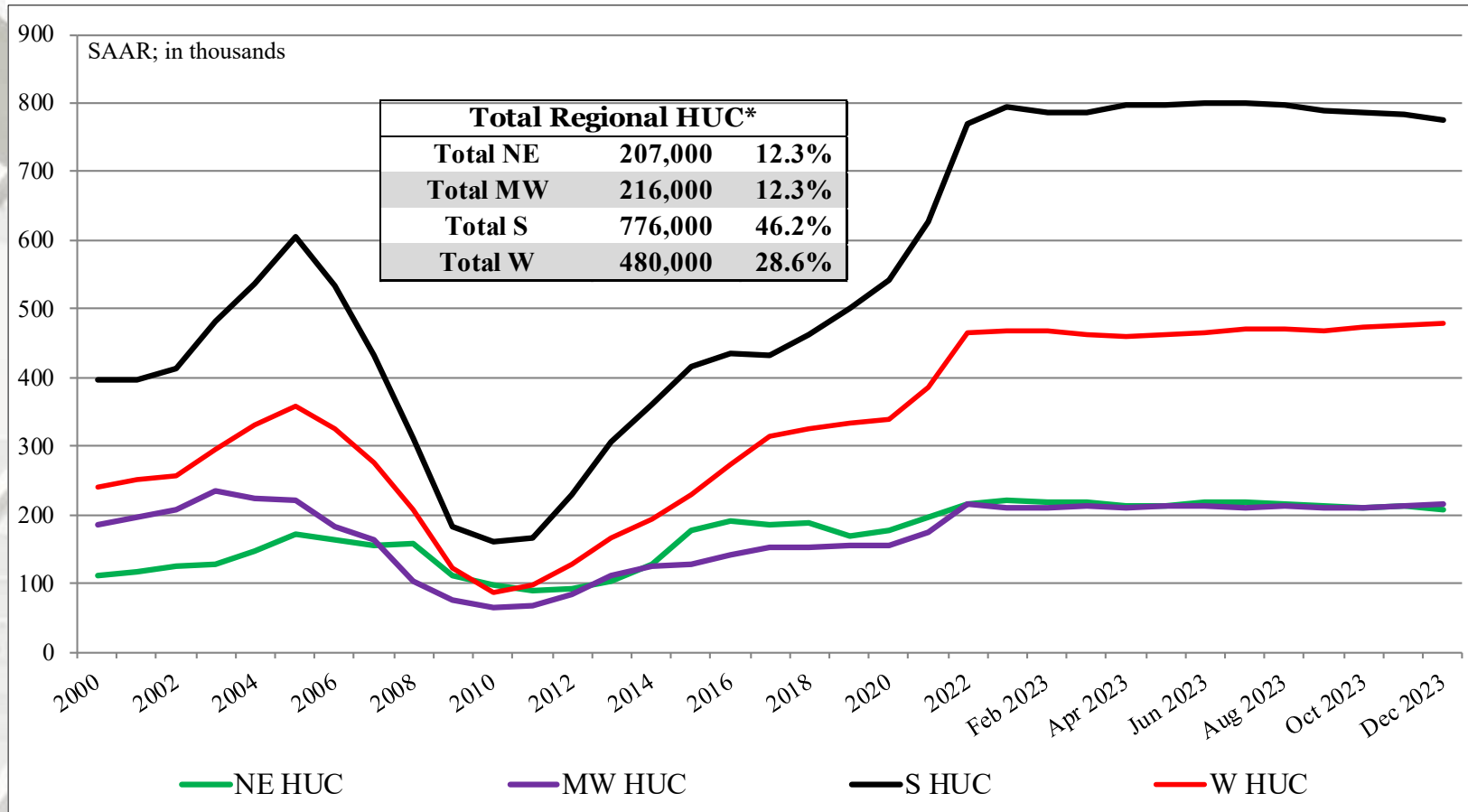# Total Housing Under Construction by Region

SAAR; in thousands

Total Regional HUC*		
Total NE	207,000	12.3%
Total MW	216,000	12.3%
Total S	776,000	46.2%
Total W	480,000	28.6%

Legend: —— NE HUC —— MW HUC —— S HUC —— W HUC

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

SAAR; in thousands

Total SF HUC*		
Total NE	65,000	3.9%
Total MW	91,000	5.4%
Total S	342,000	20.4%
Total W	173,000	10.3%

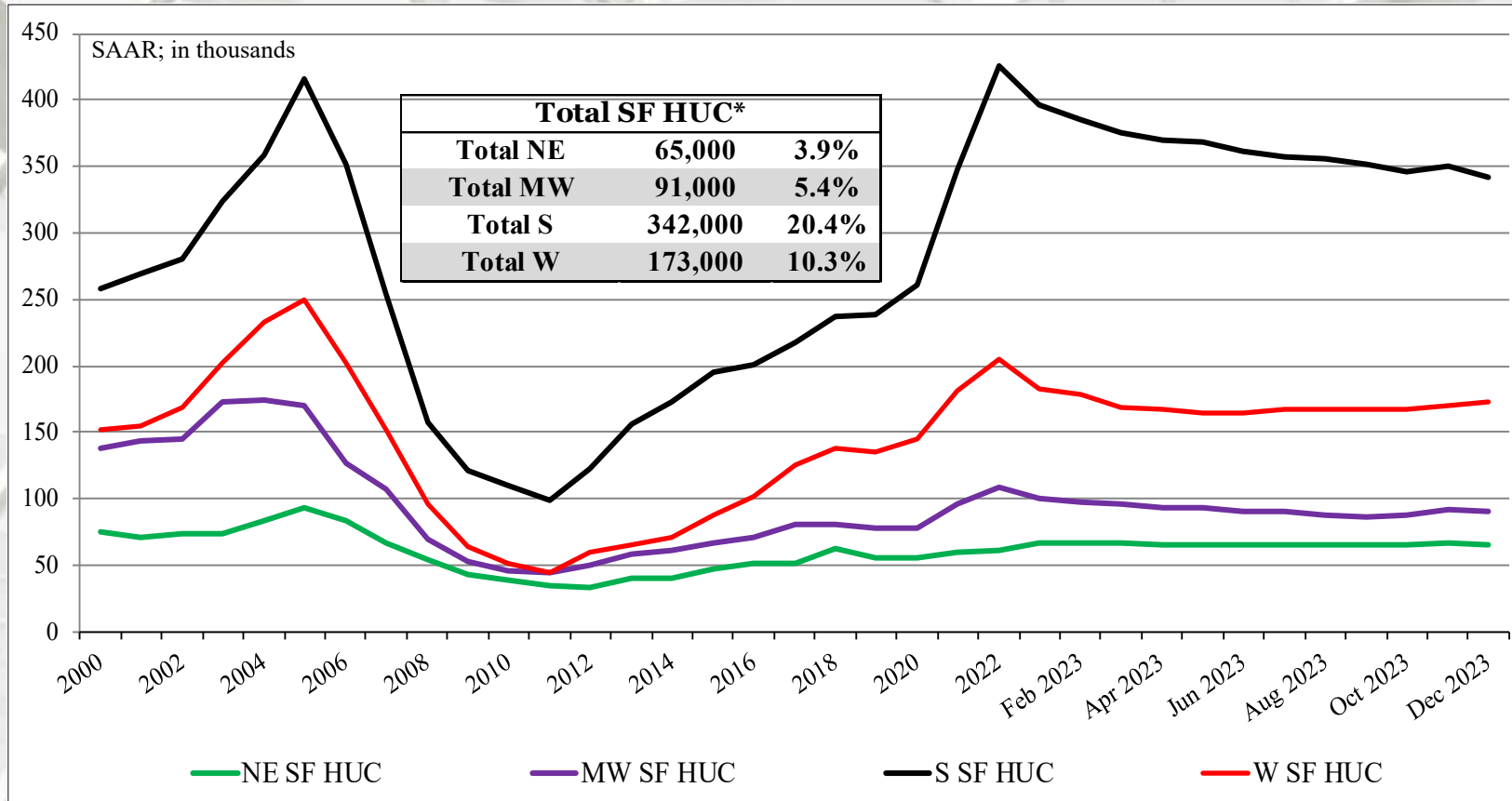Legend: NE SF HUC — MW SF HUC — S SF HUC — W SF HUC

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

SAAR; in thousands

Total MF HUC*		
Total NE	142,000	8.5%
Total MW	125,000	7.4%
Total S	434,000	25.8%
Total W	307,000	18.3%

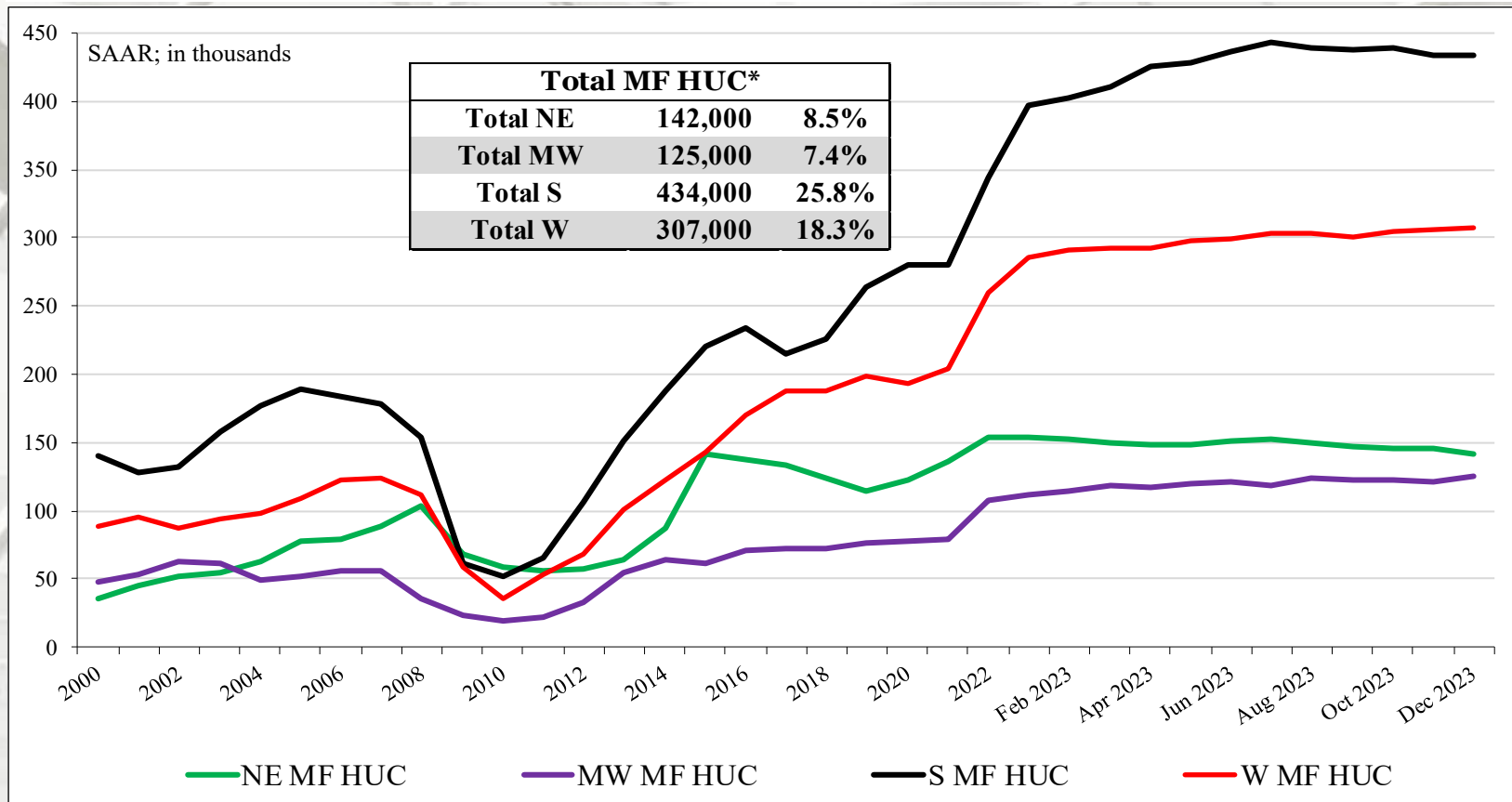Legend: — NE MF HUC   — MW MF HUC   — S MF HUC   — W MF HUC

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.

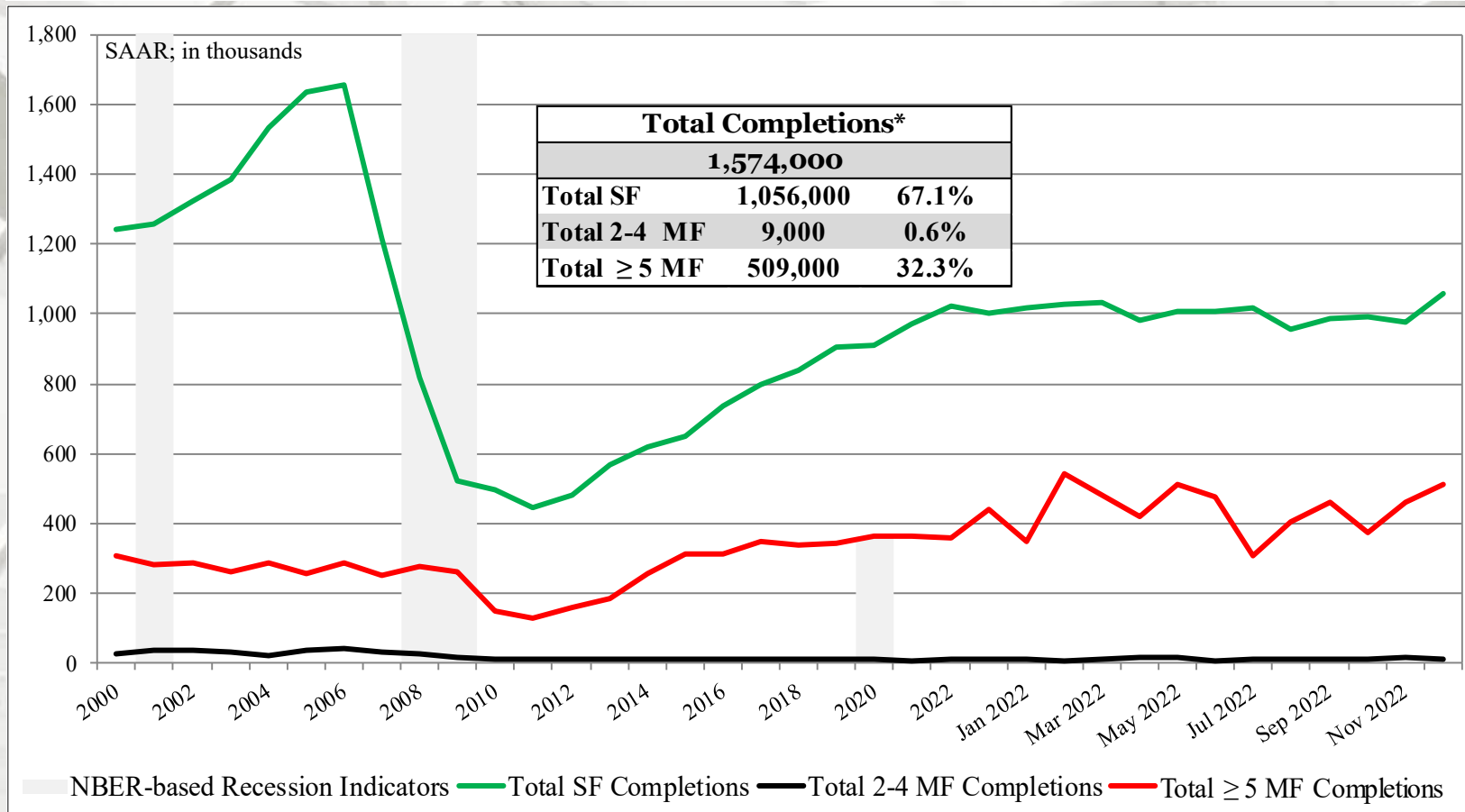Source: http://www.census.gov/construction/nrc/pdf/newresconst.pdf; 1/18/24

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New Housing Completions

	Total Completions*	SF Completions	MF 2-4 unit** Completions	MF ≥ 5 unit Completions
December	1,574,000	1,056,000	9,000	509,000
November	1,448,000	974,000	16,000	458,000
2022	1,390,000	995,000	14,000	381,000
M/M change	8.7%	8.4%	-43.8%	11.1%
Y/Y change	13.2%	6.1%	-35.7%	33.6%

* 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

SAAR; in thousands

Total Completions*		
1,574,000		
Total SF	1,056,000	67.1%
Total 2-4 MF	9,000	0.6%
Total ≥ 5 MF	509,000	32.3%

Legend: NBER-based Recession Indicators — Total SF Completions — Total 2-4 MF Completions — Total ≥ 5 MF 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**
December	136,000	70,000	66,000
November	106,000	57,000	49,000
2022	115,000	60,000	55,000
M/M change	28.3%	22.8%	34.7%
Y/Y change	18.3%	16.7%	20.0%
	MW Total	**MW SF**	**MW MF**
December	200,000	129,000	71,000
November	166,000	111,000	55,000
2022	187,000	130,000	57,000
M/M change	20.5%	16.2%	29.1%
Y/Y change	7.0%	-0.8%	24.6%

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).

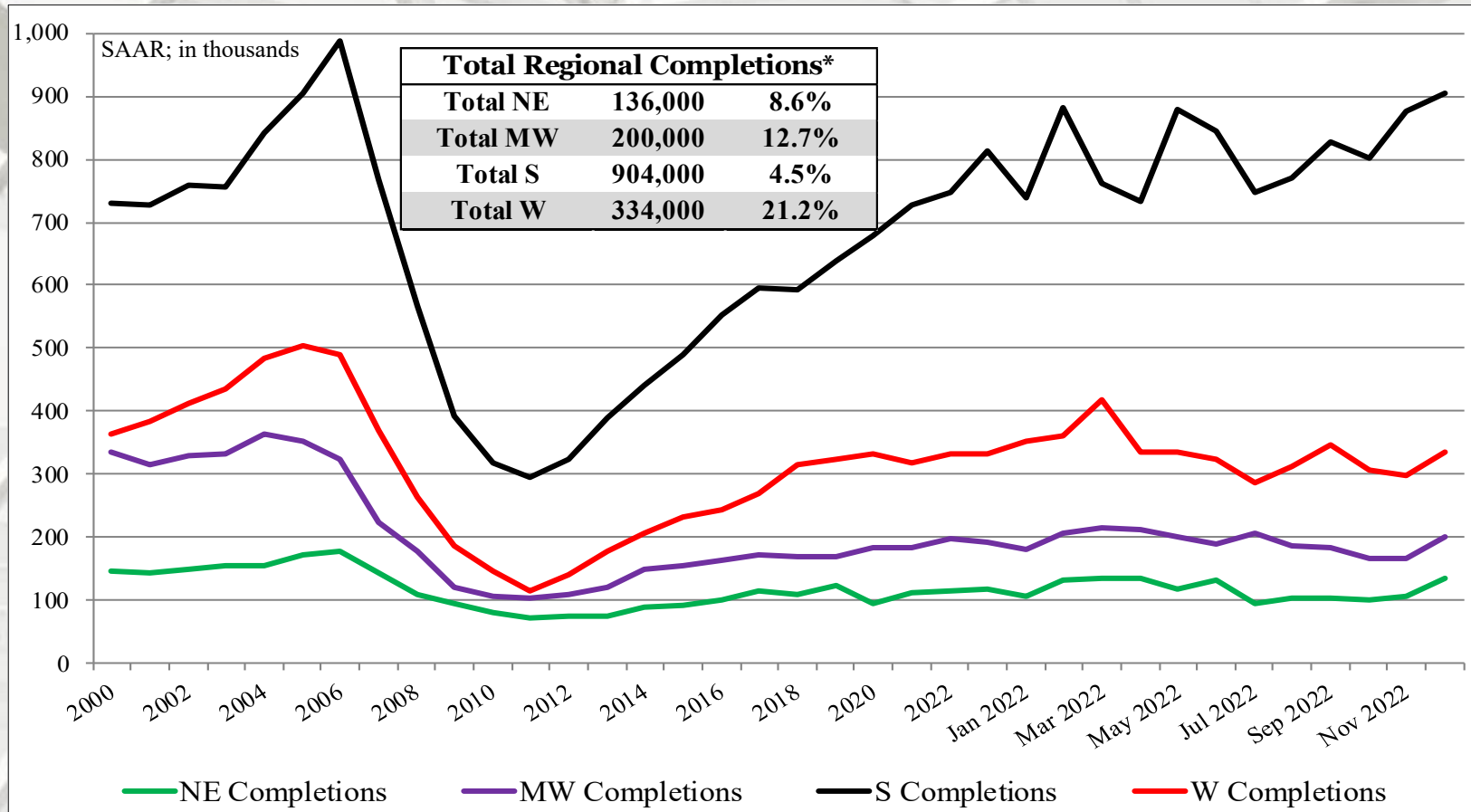* Percentage of total housing completions

New Housing Completions by Region

	S Total	S SF	S MF**
December	904,000	649,000	255,000
November	877,000	591,000	286,000
2022	766,000	589,000	177,000
M/M change	3.1%	9.8%	-10.8%
Y/Y change	18.0%	10.2%	44.1%
	W Total	**W SF**	**W MF**
December	334,000	208,000	126,000
November	299,000	215,000	84,000
2022	322,000	216,000	106,000
M/M change	11.7%	-3.3%	50.0%
Y/Y change	3.7%	-3.7%	18.9%

NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions
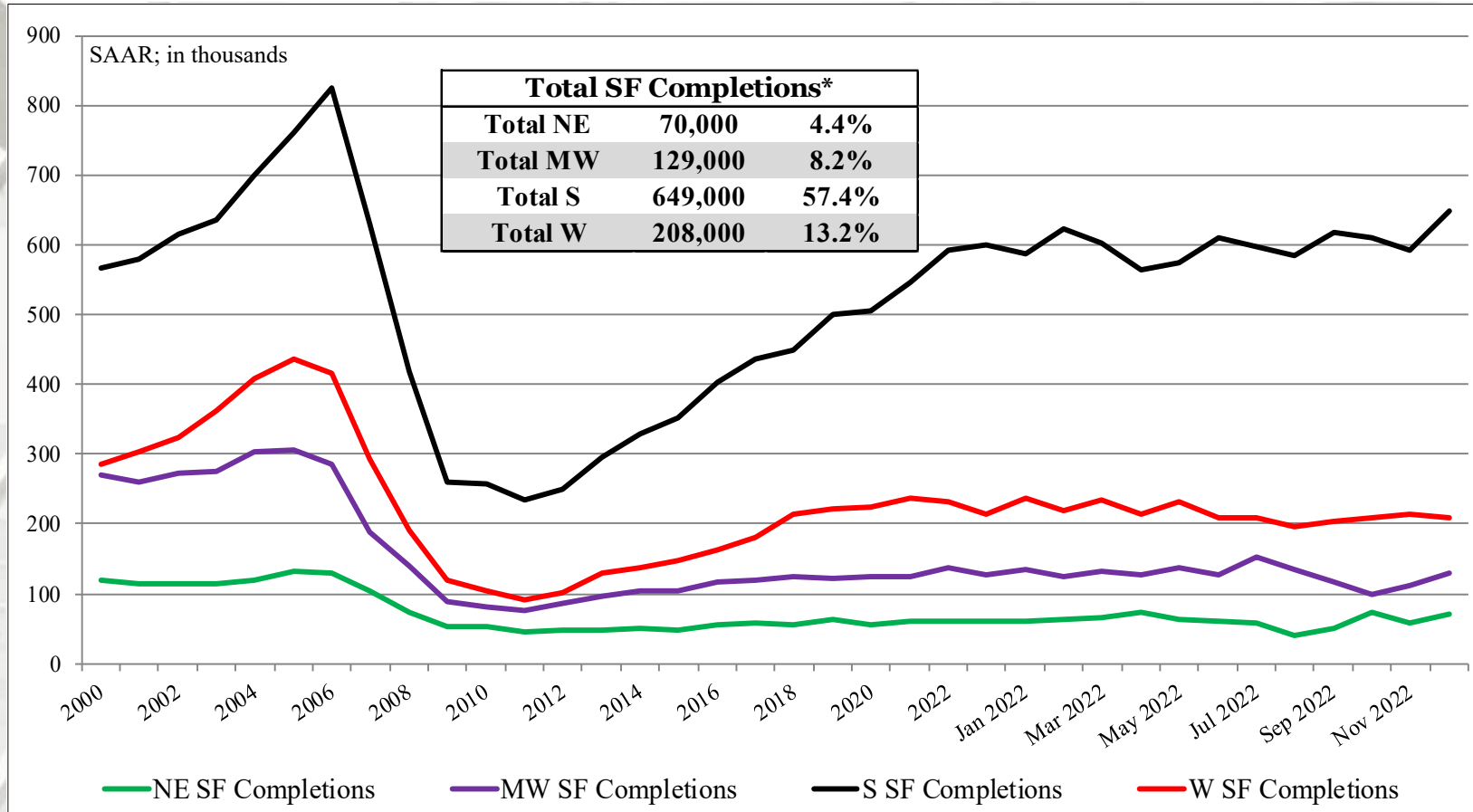
Total Housing Completions by Region

SAAR; in thousands

Total Regional Completions*		
Total NE	136,000	8.6%
Total MW	200,000	12.7%
Total S	904,000	4.5%
Total W	334,000	21.2%

Legend: NE Completions — MW Completions — S Completions — W Completions

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

SAAR; in thousands

Total SF Completions*		
Total NE	70,000	4.4%
Total MW	129,000	8.2%
Total S	649,000	57.4%
Total W	208,000	13.2%

— NE SF Completions　— MW SF Completions　— S SF Completions　— W SF Completions
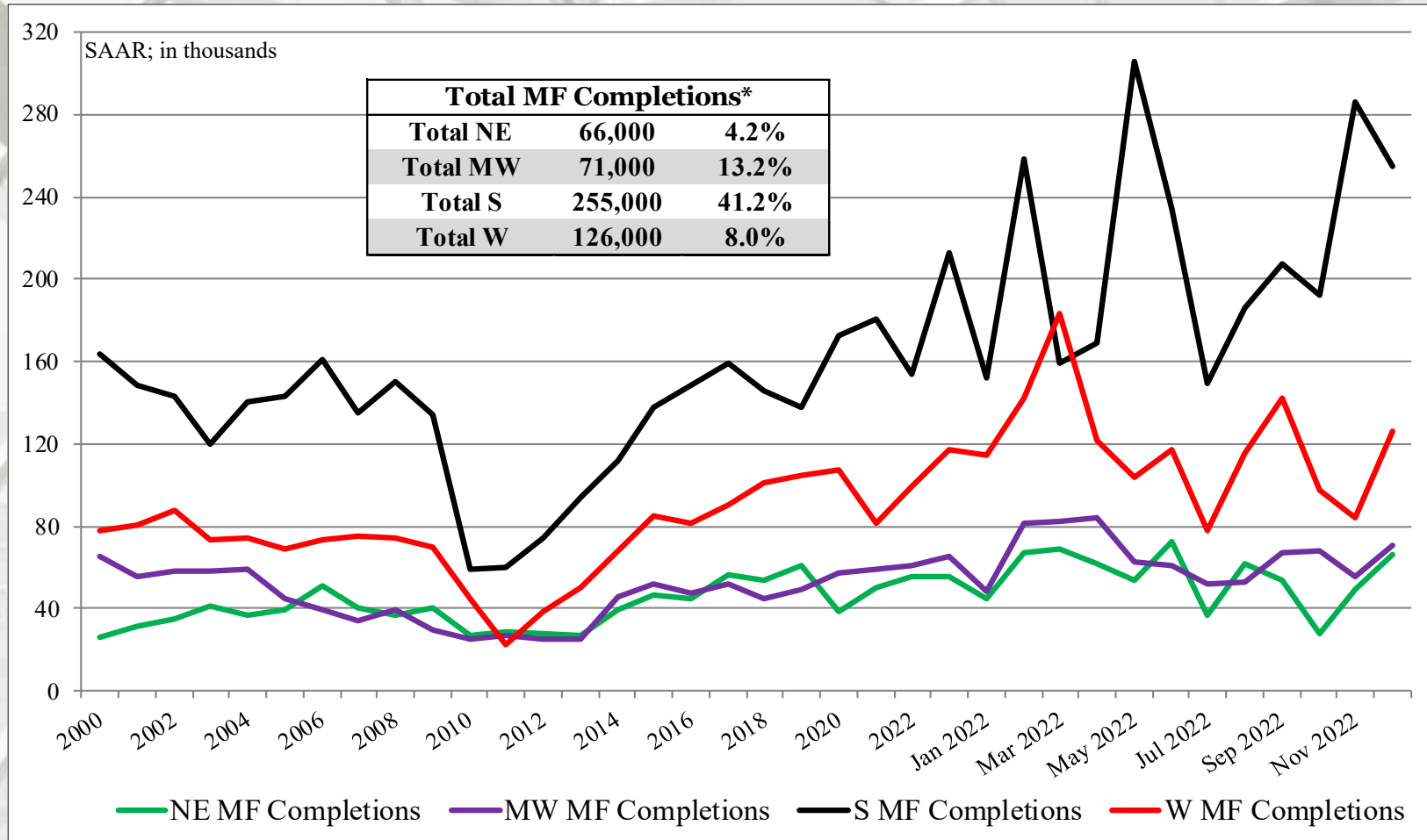
NE = Northeast, MW = Midwest, S = South, W = West
US DOC does not report 2 to 4 multi-family completions directly; this is an estimation (Total completions – SF completions).

* Percentage of total housing completions

MF Housing Completions by Region

SAAR; in thousands

Total MF Completions*		
Total NE	66,000	4.2%
Total MW	71,000	13.2%
Total S	255,000	41.2%
Total W	126,000	8.0%

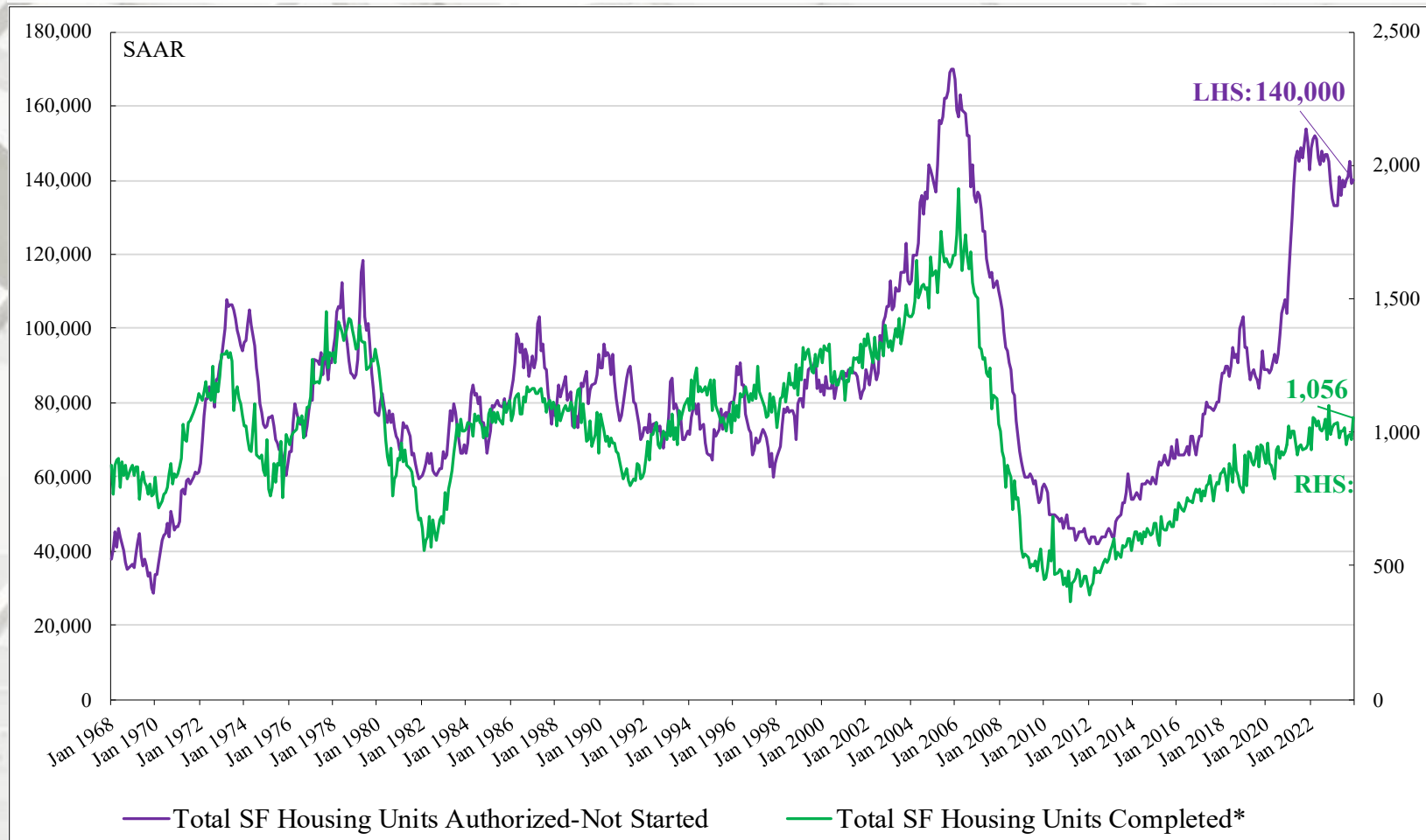— NE MF Completions   — MW MF Completions   — S MF Completions   — W MF Completions

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 266,000 in December, a decrease from November (280,000), and SF authorized units "not" started were 140,000 units in December, an increase from November (139,000). Total completions increased and SF unit completions decreased M/M.

The primary reason currently is reduced demand, and in combination with lingering 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
December	664,000	$413,200	$487,300	8.2
November	615,000	$426,000	$485,500	8.8
2022	636,000	$479,500	$568,700	8.5
M/M change	8.0%	-3.0%	0.4%	-6.8%
Y/Y change	4.4%	-13.8%	-14.3%	-3.5%

* All new sales data are presented at a seasonally adjusted annual rate (SAAR)[1] and housing prices are adjusted at irregular intervals[2].
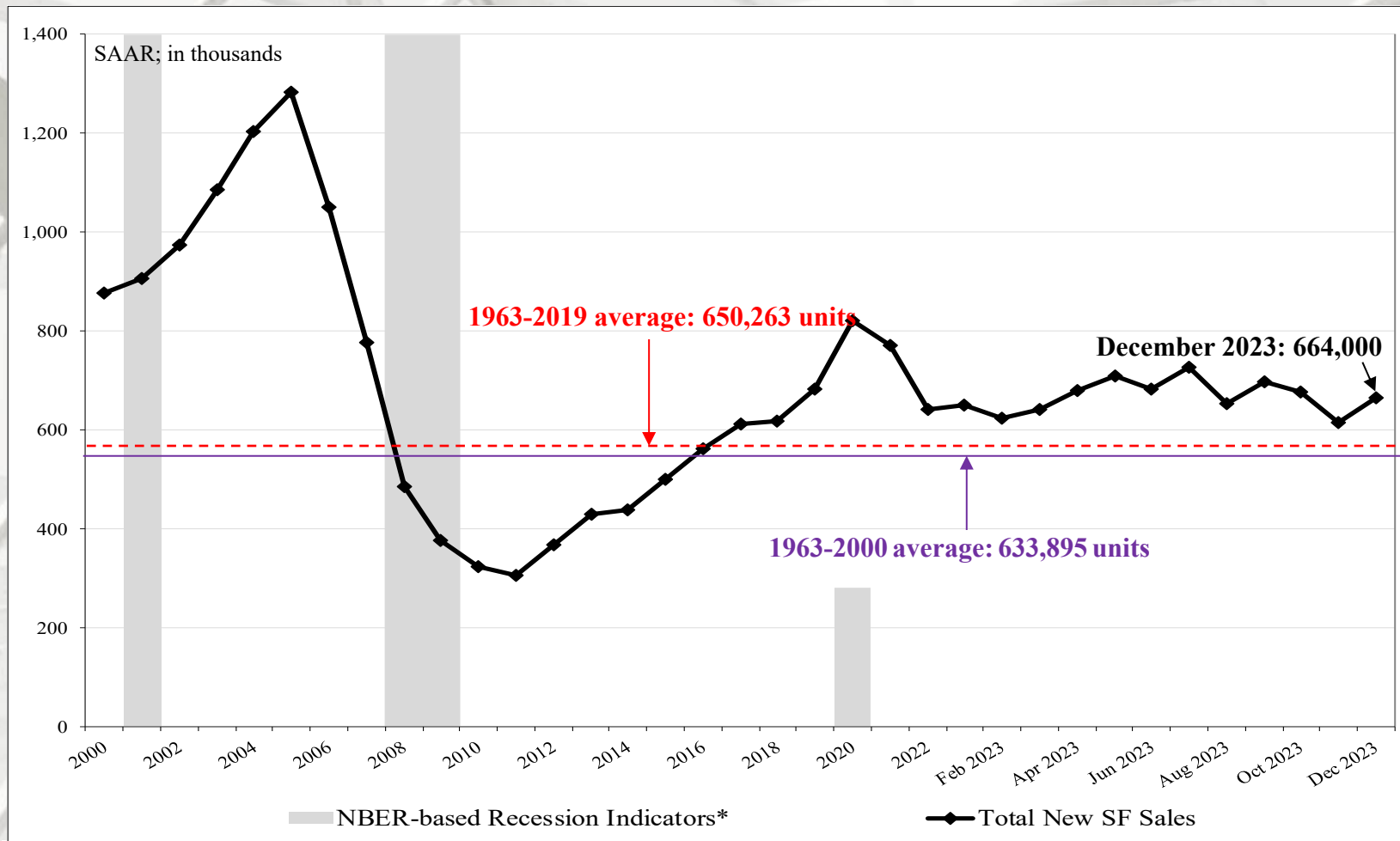
New SF sales were less than the consensus forecast[3] of 650 m; range 606 m to 700 m. The past three month's new SF sales data also were revised:

September initial: 759 m, revised to 698 m.
October initial: 679 m, revised to 676 m.
November initial: 590 m, revised to 615 m.

New SF House Sales

SAAR; in thousands

1963-2019 average: 650,263 units

1963-2000 average: 633,895 units

December 2023: 664,000

NBER-based Recession Indicators* ——◆—— Total New SF 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

SAAR; in thousands

680

664
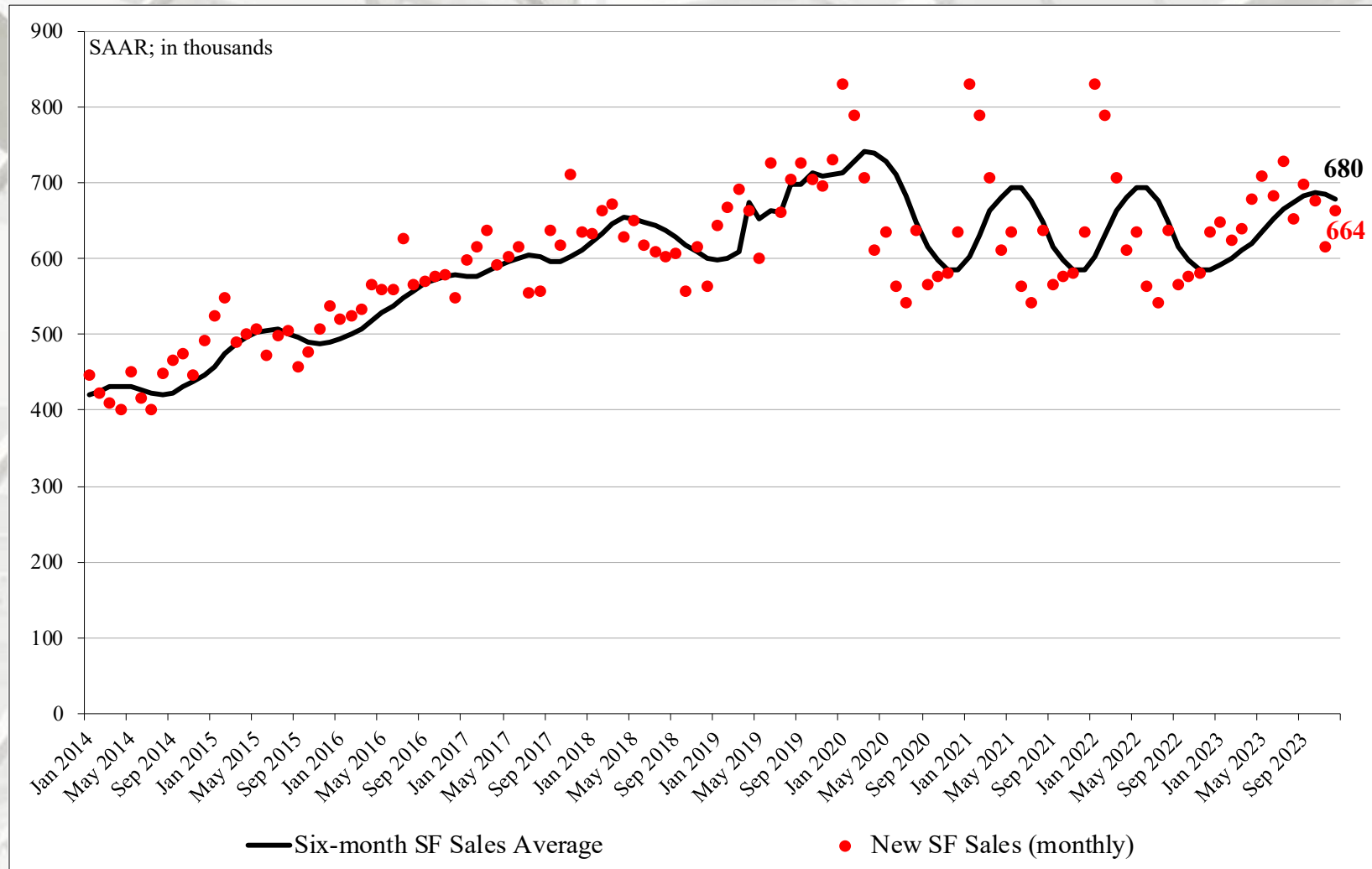
New SF House Sales by Region and Price Category

	NE	MW	S	W
December	33,000	71,000	419,000	141,000
November	25,000	65,000	379,000	146,000
2022	34,000	67,000	404,000	131,000
M/M change	32.0%	9.2%	10.6%	-3.4%
Y/Y change	-2.9%	6.0%	3.7%	7.6%

	≤ $150m	$150 - $199.9m	$200 - 299.9m	$300 - $399.9m	$400 - $499.9m	$500 - $749.9m	≥ $750m
December[1,2,3,4]	0	0	7,000	15,000	9,000	14,000	4,000
November	0	0	7,000	10,000	10,000	11,000	4,000
2022	0	500	4,000	13,000	7,000	14,000	8,000
M/M change	0.0%	0.0%	0.0%	50.0%	-10.0%	27.3%	0.0%
Y/Y change	0.0%	0.0%	75.0%	15.4%	28.6%	0.0%	-50.0%
% of New SF sales	0.0%	0.0%	13.3%	31.7%	20.0%	21.7%	13.3%

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 December not add to total because of rounding.

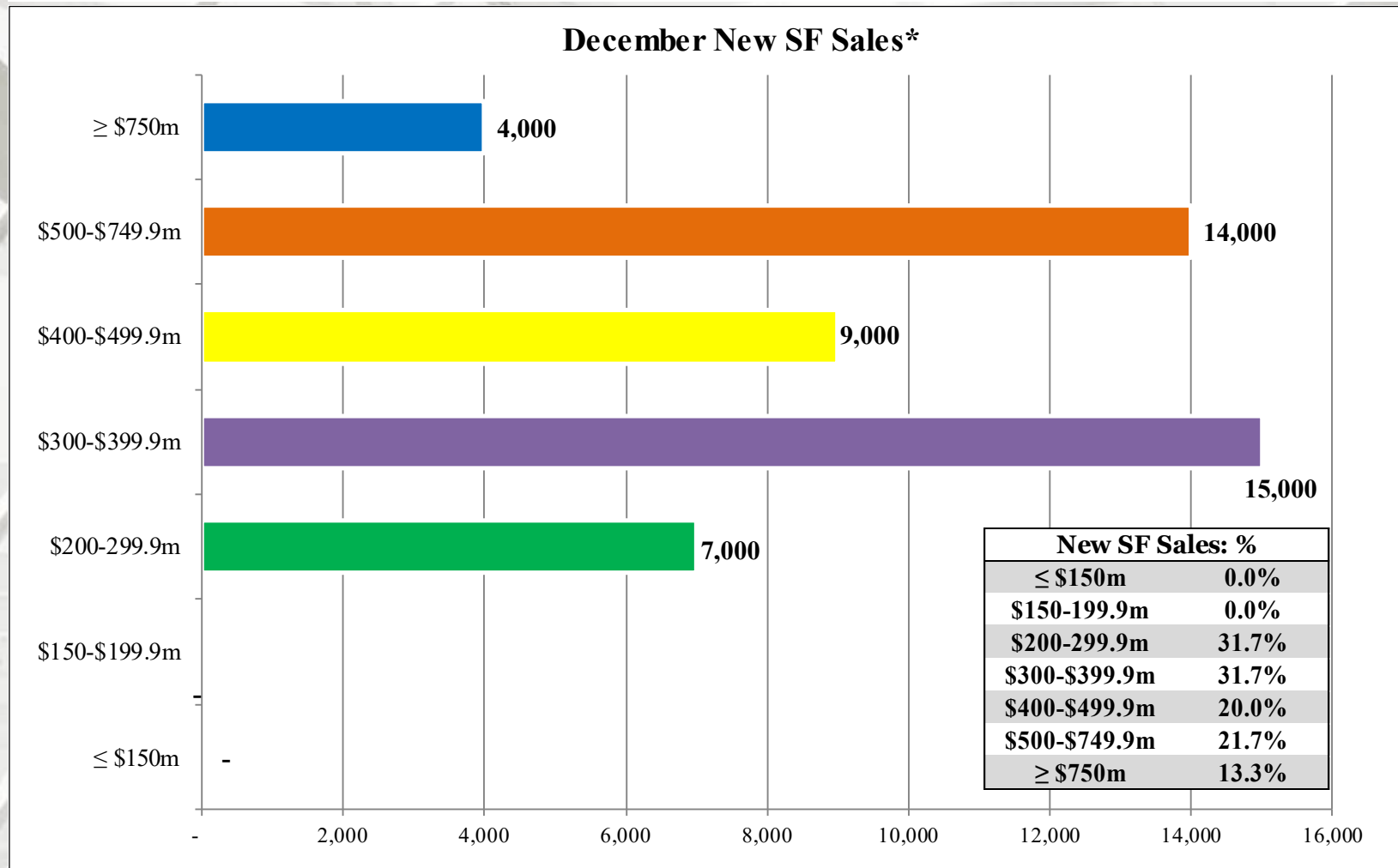[4] Housing prices are adjusted at irregular intervals.

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

New SF House Sales

December New SF Sales*

≥ $750m	4,000
$500-$749.9m	14,000
$400-$499.9m	9,000
$300-$399.9m	15,000
$200-299.9m	7,000
$150-$199.9m	
≤ $150m	-

New SF Sales: %	
≤ $150m	0.0%
$150-199.9m	0.0%
$200-299.9m	31.7%
$300-$399.9m	31.7%
$400-$499.9m	20.0%
$500-$749.9m	21.7%
≥ $750m	13.3%

* Total new sales by price category and percent.

New SF House Sales by Region

SAAR; in thousands

Total SF Sales*		
Total NE	33,000	5.0%
Total MW	71,000	10.7%
Total S	419,000	63.1%
Total W	141,000	21.2%

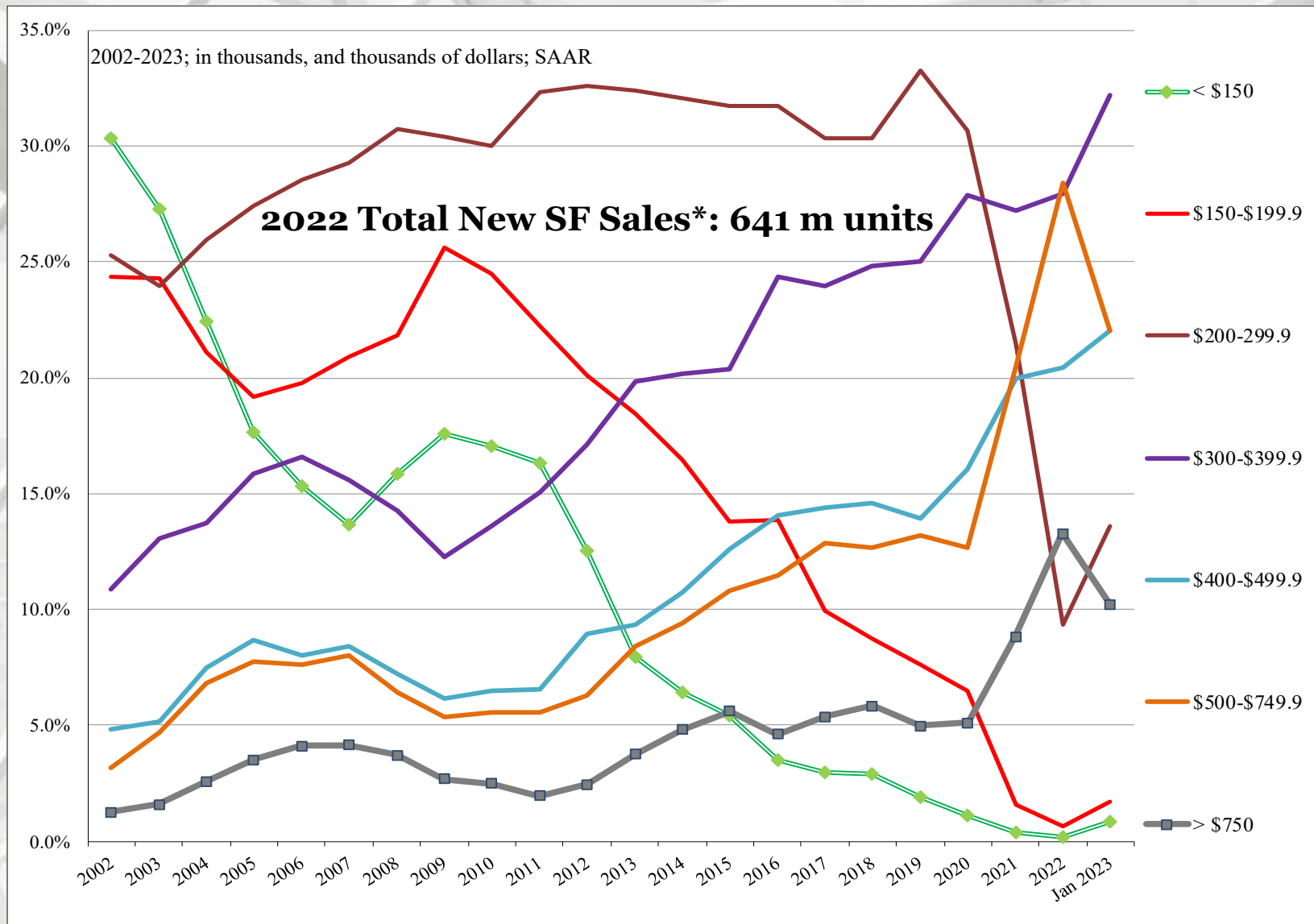NBER-based Recession Indicators* —— NE SF Sales —— MW SF Sales —— S SF Sales —— W SF Sales
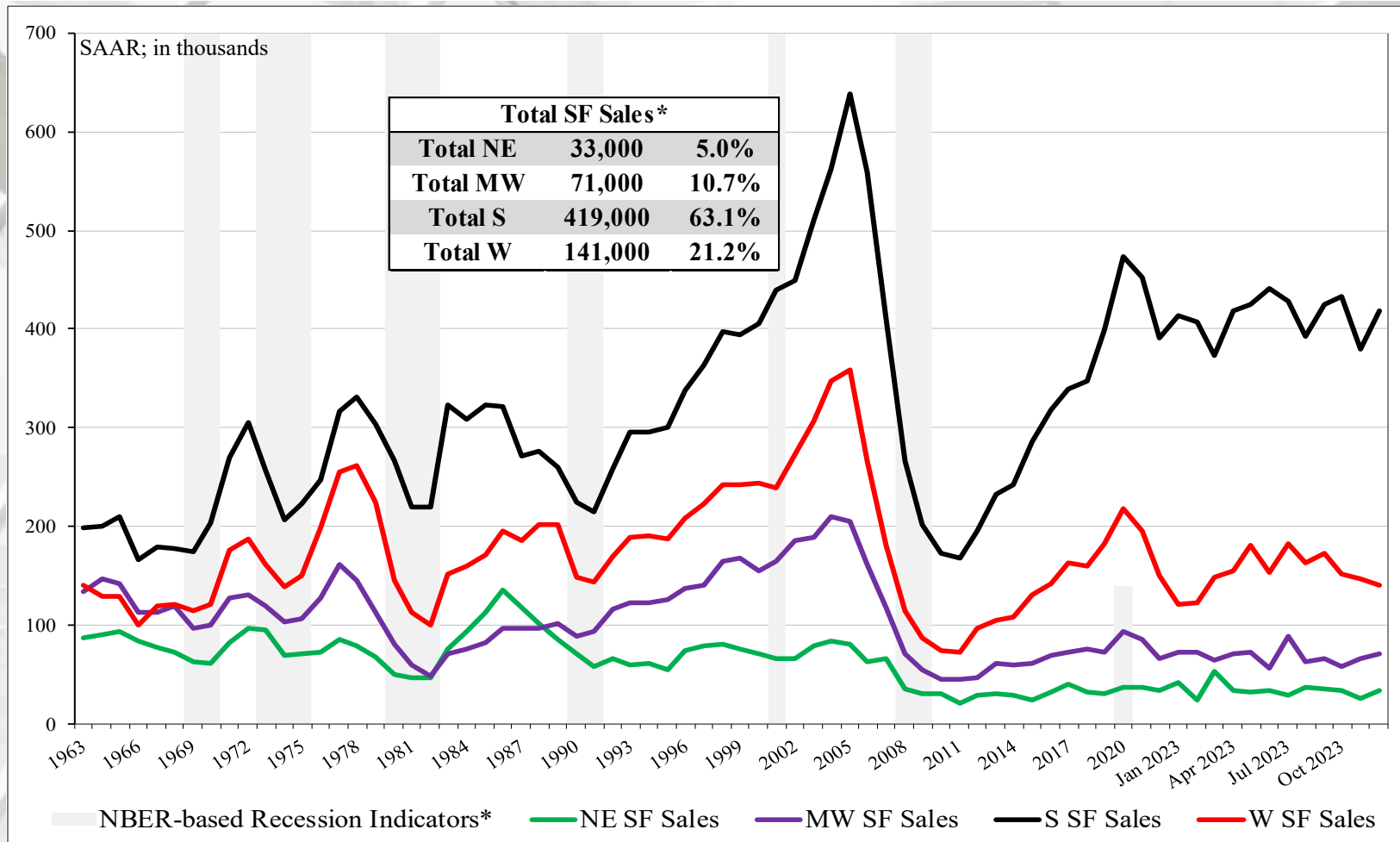
NE = Northeast; MW = Midwest; S = South; W = West
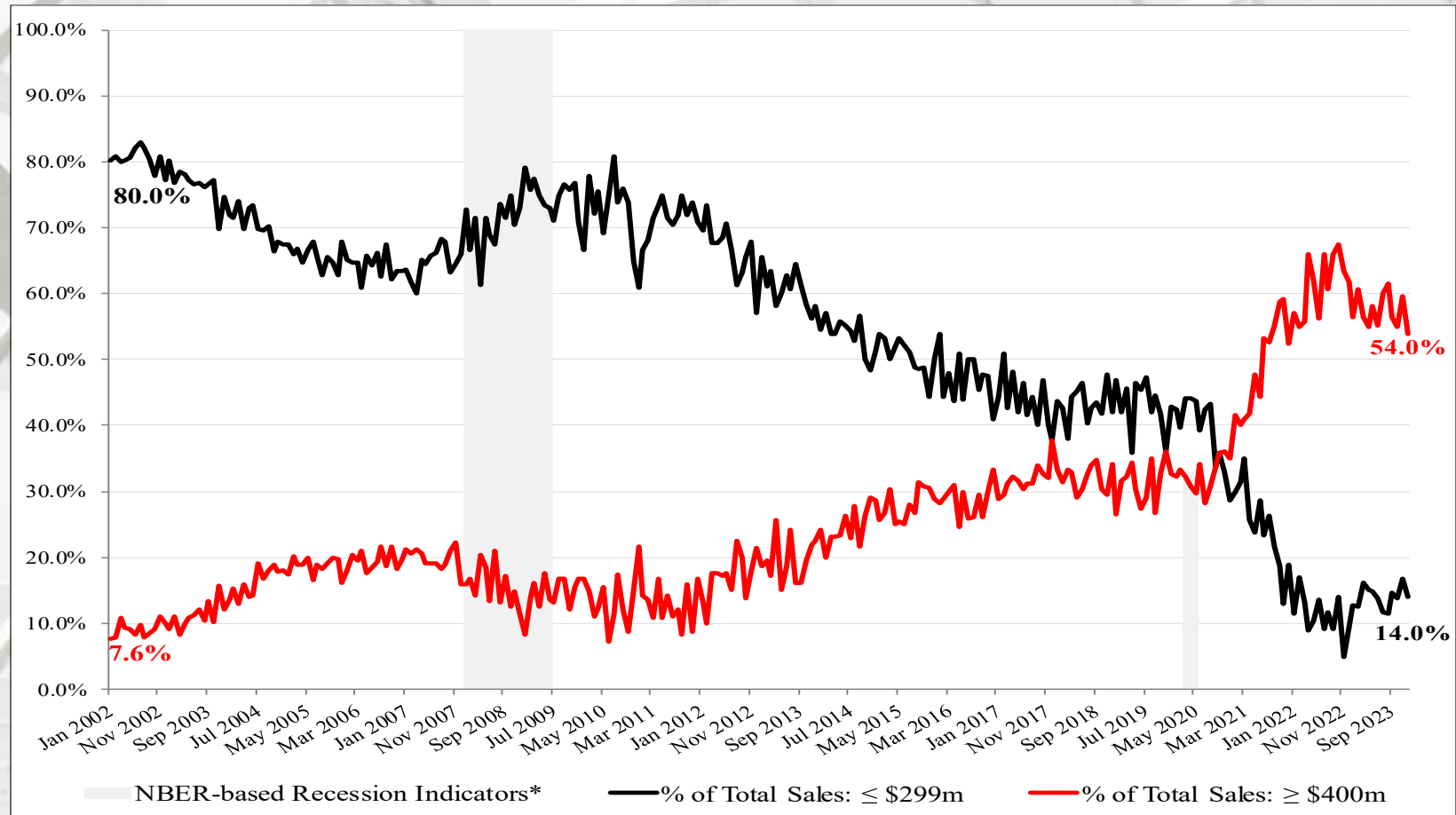* Percentage of total new sales.

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

2002-2023; in thousands, and thousands of dollars; SAAR

2022 Total New SF Sales*: 641 m units

Legend:
- < $150
- $150-$199.9
- $200-299.9
- $300-$399.9
- $400-$499.9
- $500-$749.9
- > $750

New SF House Sales

80.0%

7.6%

54.0%

14.0%

Jan 2002 Nov 2002 Sep 2003 Jul 2004 May 2005 Mar 2006 Jan 2007 Nov 2007 Sep 2008 Jul 2009 May 2010 Mar 2011 Jan 2012 Nov 2012 Sep 2013 Jul 2014 May 2015 Mar 2016 Jan 2017 Nov 2017 Sep 2018 Jul 2019 May 2020 Mar 2021 Jan 2022 Nov 2022 Sep 2023

NBER-based Recession Indicators* ——% of Total Sales: ≤ $299m ——% of Total Sales: ≥ $400m
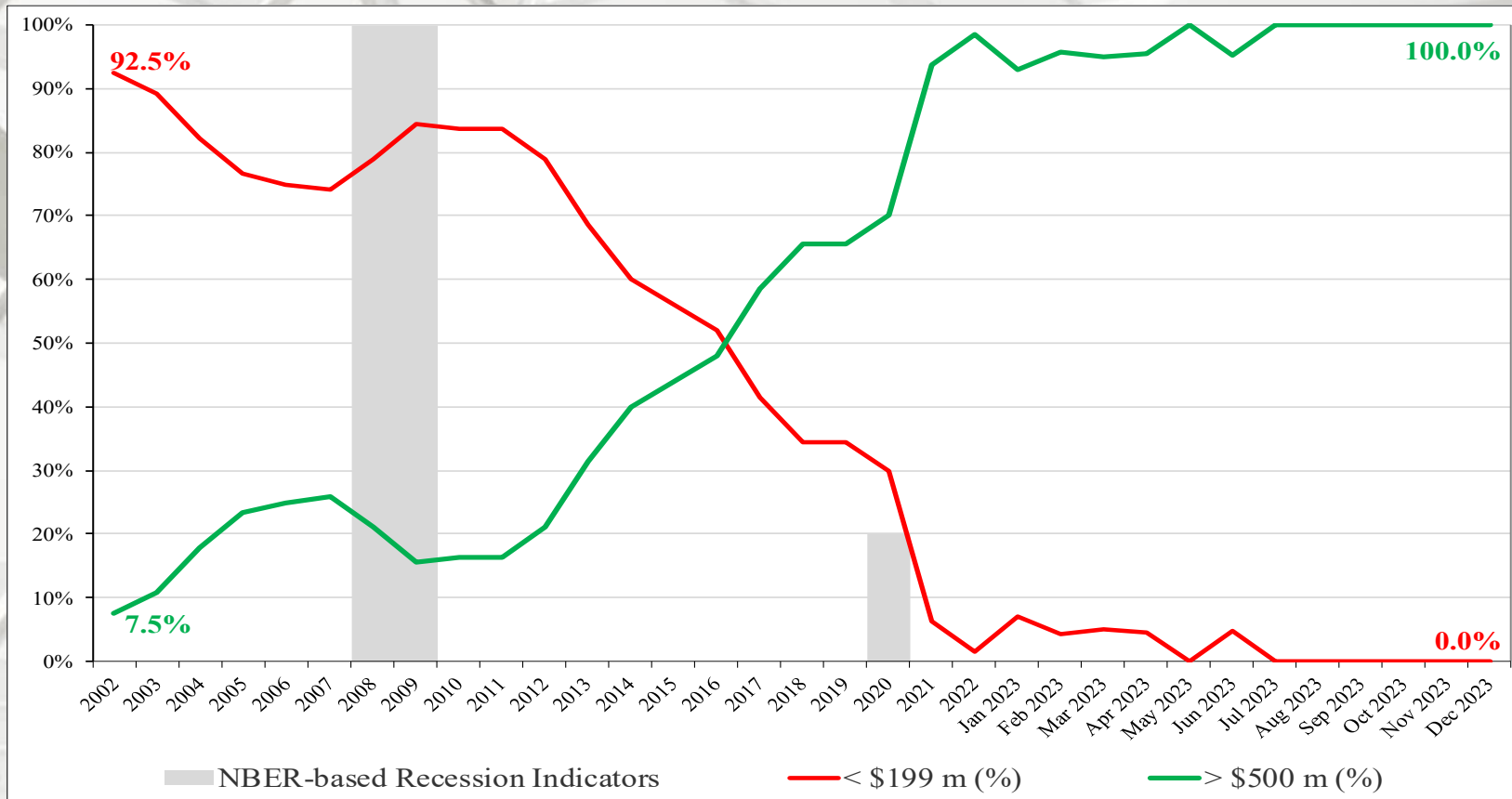
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).

New SF Sales: ≤ $299m and ≥ $400m: 2002 – December 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.
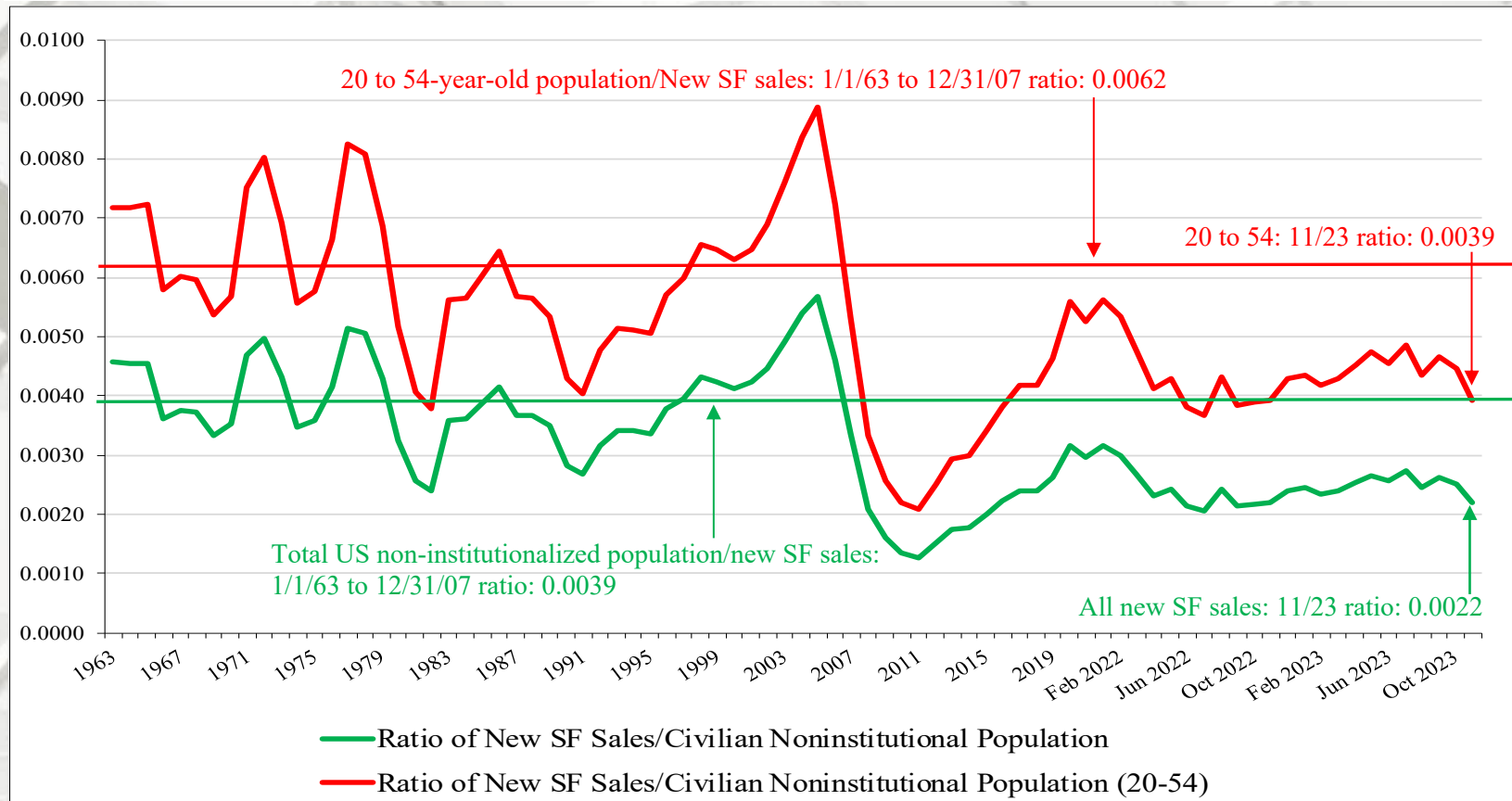
New SF House Sales

New SF Sales: ≤ $ 200m and ≥ $500m: 2002 to December 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).
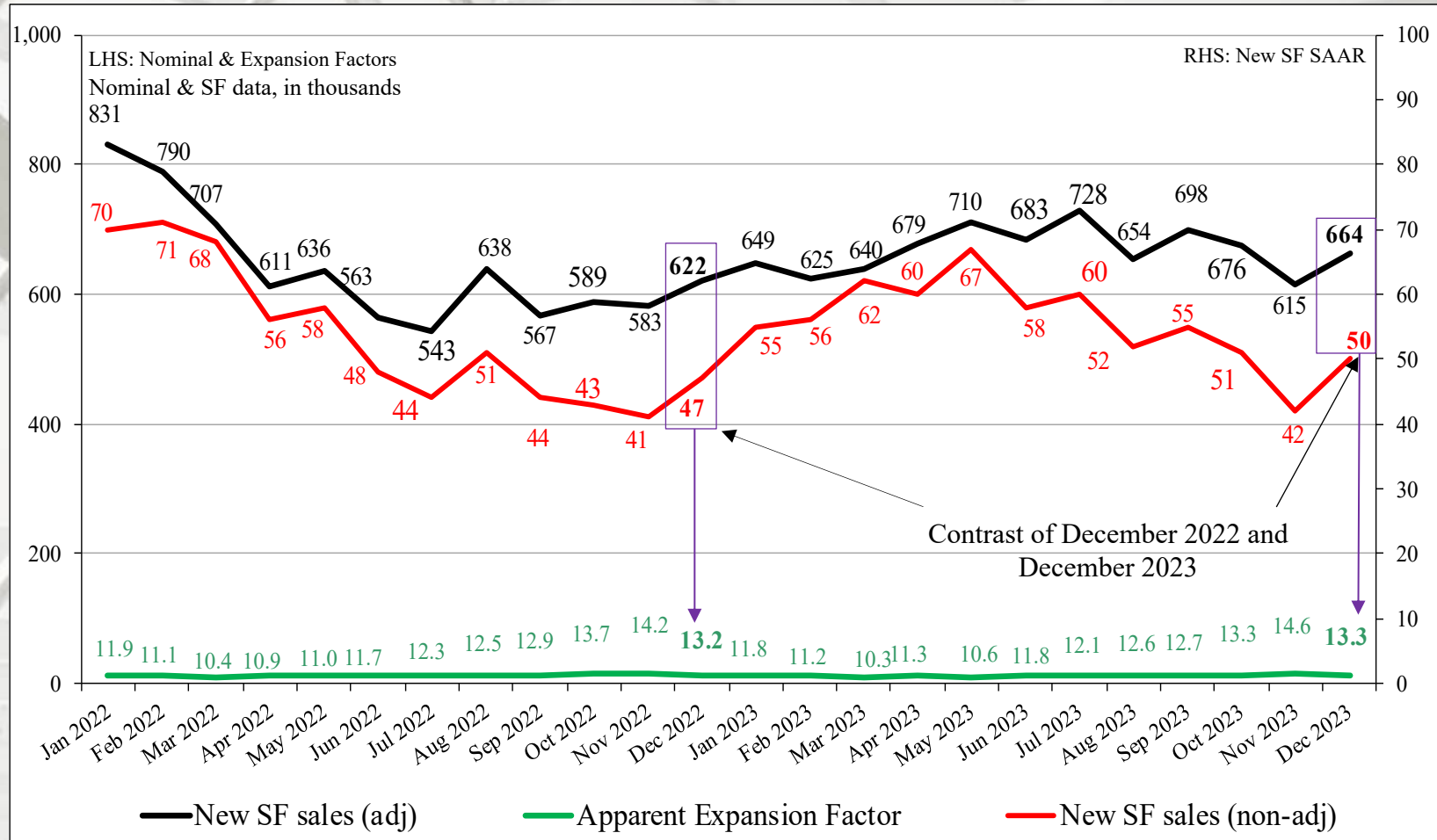
New SF House Sales

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 December 2023 it was 0.0022 – a decrease from October (0.0025). The non-institutionalized population, aged 20 to 54 long-term ratio is 0.0062; in December 2023 it was 0.0039 – also a decline from October (0.0045). 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
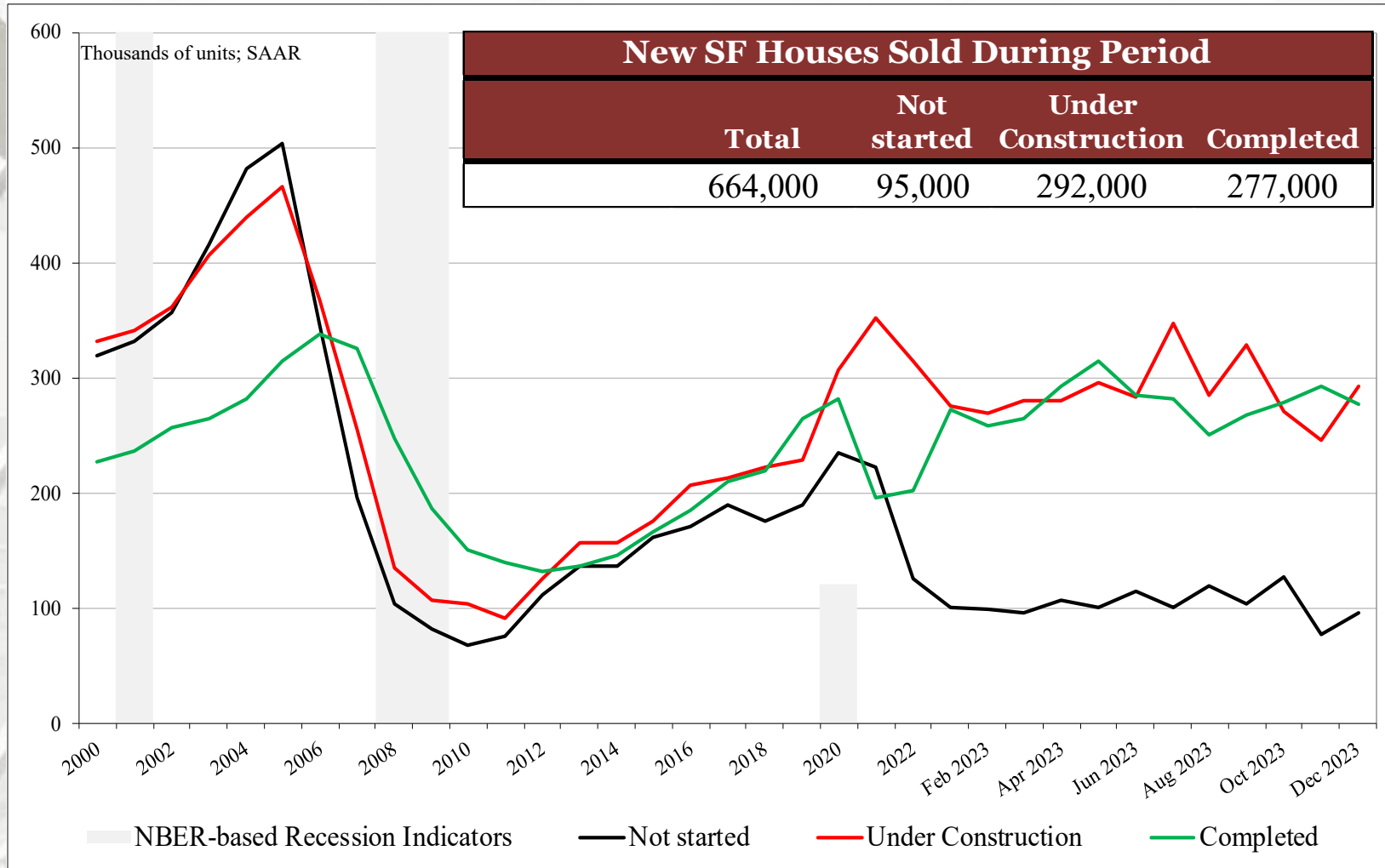
New SF House Sales

New SF Houses Sold During Period				
	Total	**Not started**	**Under Construction**	**Completed**
December	664,000	95,000	292,000	277,000
November	615,000	77,000	246,000	292,000
2022	451,000	92,000	293,000	66,000
M/M change	8.0%	23.4%	18.7%	-5.1%
Y/Y change	47.2%	3.3%	-0.3%	319.7%
Total percentage		14.3%	44.0%	41.7%

All data is SAAR

Return TOC

New SF House Sales: Sold During Period

Thousands of units; SAAR

New SF Houses Sold During Period			
Total	Not started	Under Construction	Completed
664,000	95,000	292,000	277,000

NBER-based Recession Indicators —— Not started —— Under Construction —— Completed
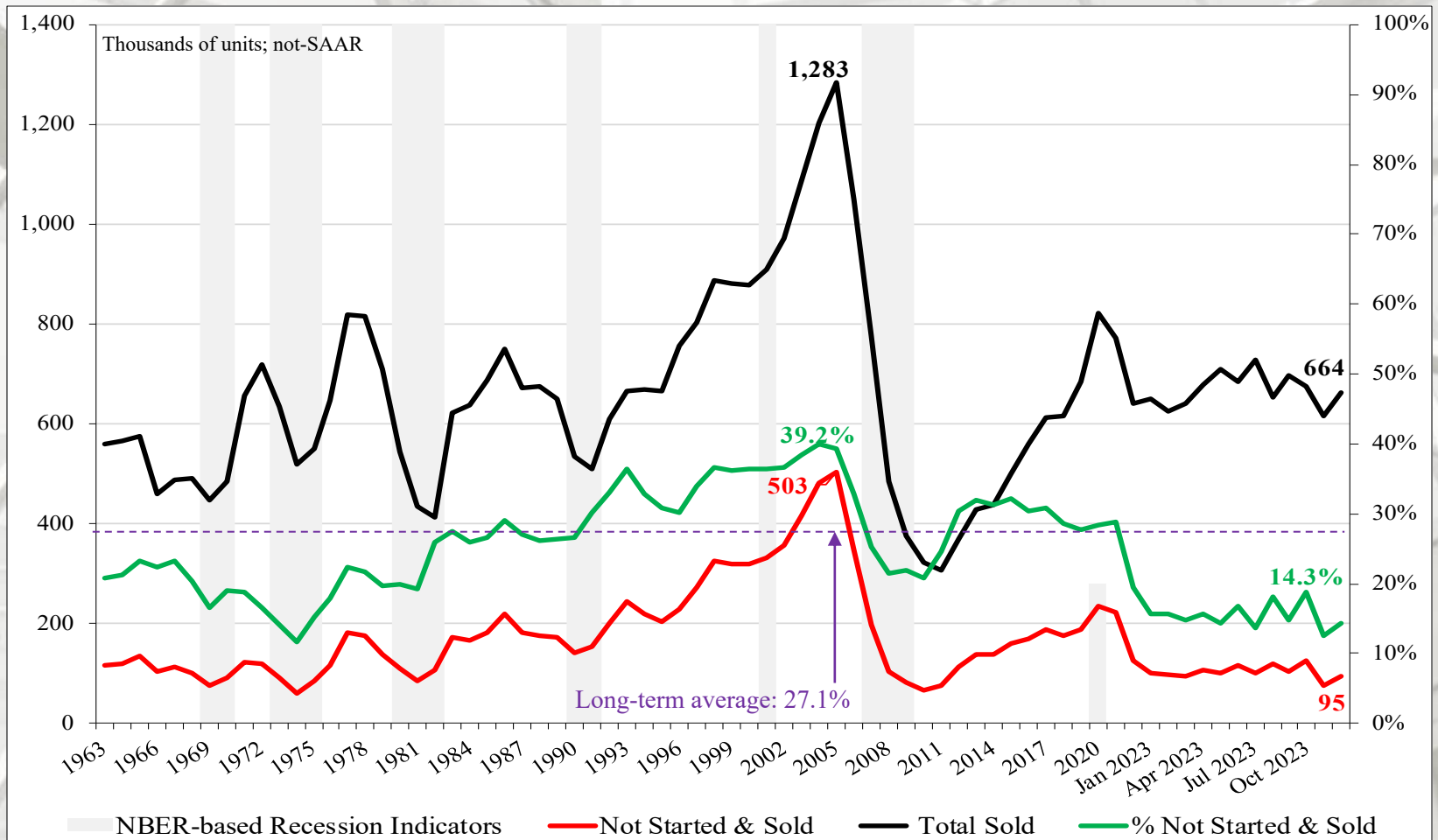
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).
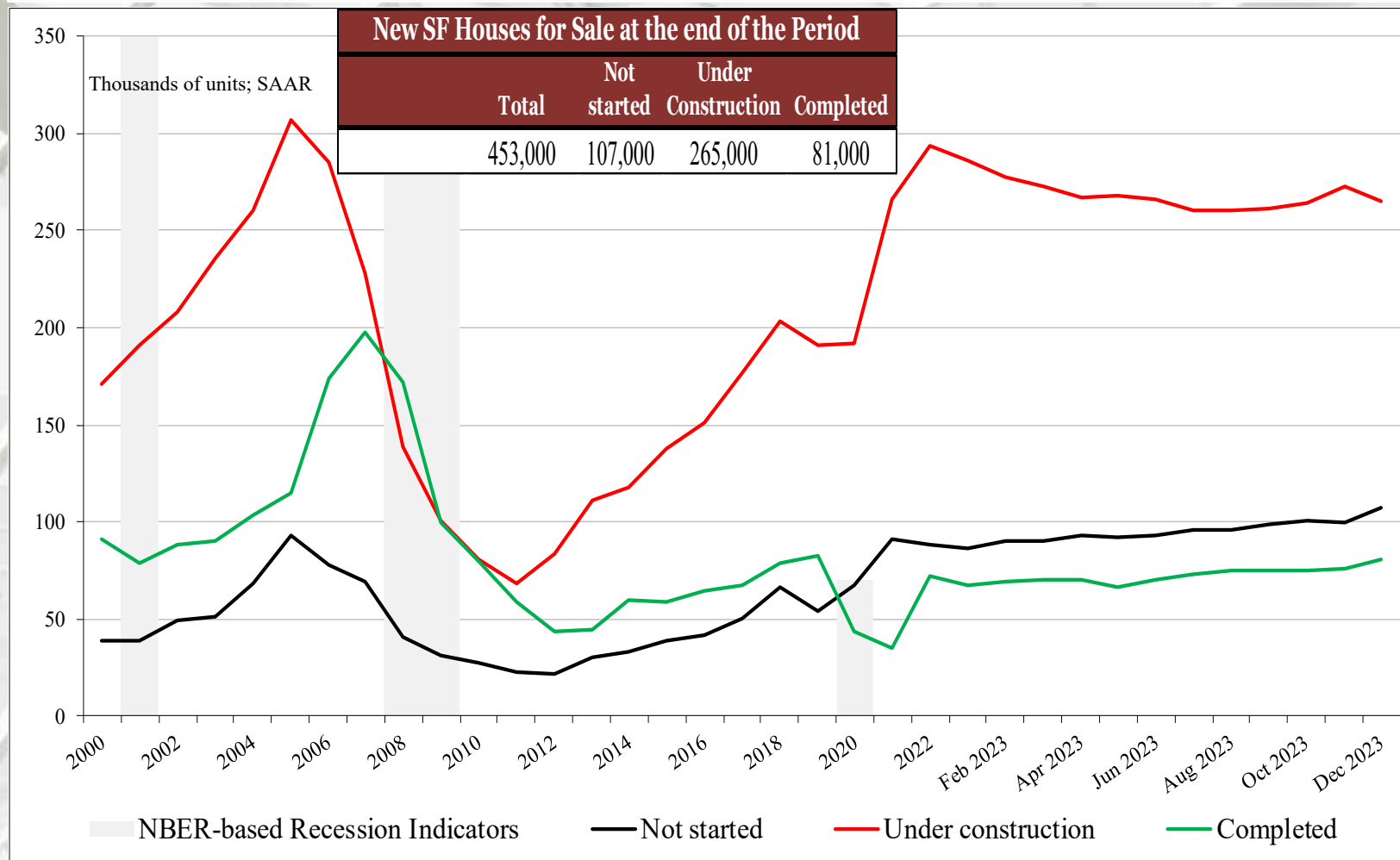
New SF House Sales:
Percentage Not Started & Sold During Period

Thousands of units; not-SAAR

1,283

1,400

1,200

1,000

800

600

400

200

0

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0%

39.2%

503

664

14.3%

95

Long-term average: 27.1%

1963 1966 1969 1972 1975 1978 1981 1984 1987 1990 1993 1996 1999 2002 2005 2008 2011 2014 2017 2020 Jan 2023 Apr 2023 Jul 2023 Oct 2023

NBER-based Recession Indicators — Not Started & Sold — Total Sold — % Not Started & Sold

Of the new houses sold in December (664 m), 14.3% (95 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).

Return TOC

New SF Houses for Sale

New SF Houses for Sale at the end of the Period				
	Total	**Not started**	**Under Construction**	**Completed**
December	453,000	107,000	265,000	81,000
November	449,000	100,000	273,000	76,000
2022	451,000	92,000	293,000	66,000
M/M change	0.9%	7.0%	-2.9%	6.6%
Y/Y change	0.4%	16.3%	-9.6%	22.7%
Total percentage		23.6%	58.5%	17.9%

Not SAAR

Of houses listed for sale (453 m) in December, 17.9% (81 m) have been built. In the 'ground had not been broken for construction' or 'not started' category, 107 m (23.6%) were sold.

New SF House Sales: For Sale at End of Period

New SF Houses for Sale at the end of the Period

Total	Not started	Under Construction	Completed
453,000	107,000	265,000	81,000

Thousands of units; SAAR

NBER-based Recession Indicators — Not started — Under construction — Completed

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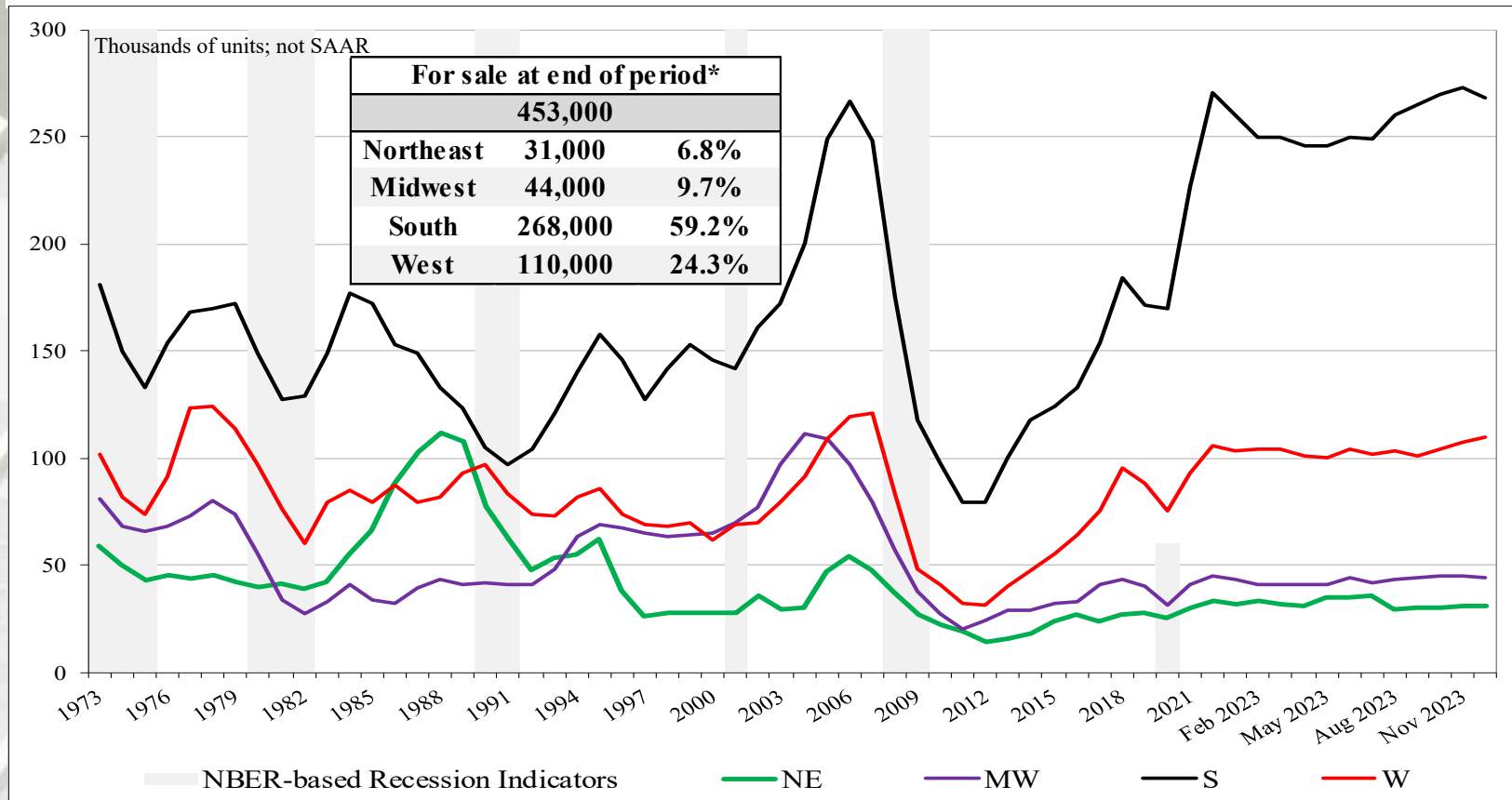
New SF House Sales

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

	Total	NE	MW	S	W
December	453,000	31,000	44,000	268,000	110,000
November	457,000	31,000	45,000	273,000	107,000
2022	455,000	33,000	45,000	271,000	106,000
M/M change	-0.9%	0.0%	-2.2%	-1.8%	2.8%
Y/Y change	-0.4%	-6.1%	-2.2%	-1.1%	3.8%

* Not SAAR

New SF Houses for Sale at End of Period by Region

Thousands of units; not SAAR

For sale at end of period*		
453,000		
Northeast	**31,000**	**6.8%**
Midwest	**44,000**	**9.7%**
South	**268,000**	**59.2%**
West	**110,000**	**24.3%**

NBER-based Recession Indicators — NE — MW — S — W

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).

Return TOC

Months' Supply and New House Inventory[a]

Thousands of units for sale at the end of the month; SAAR

Months' supply at current sales rate

346.0

8.2

Legend: New House Inventory — Months' Supply at Current Sales Rate
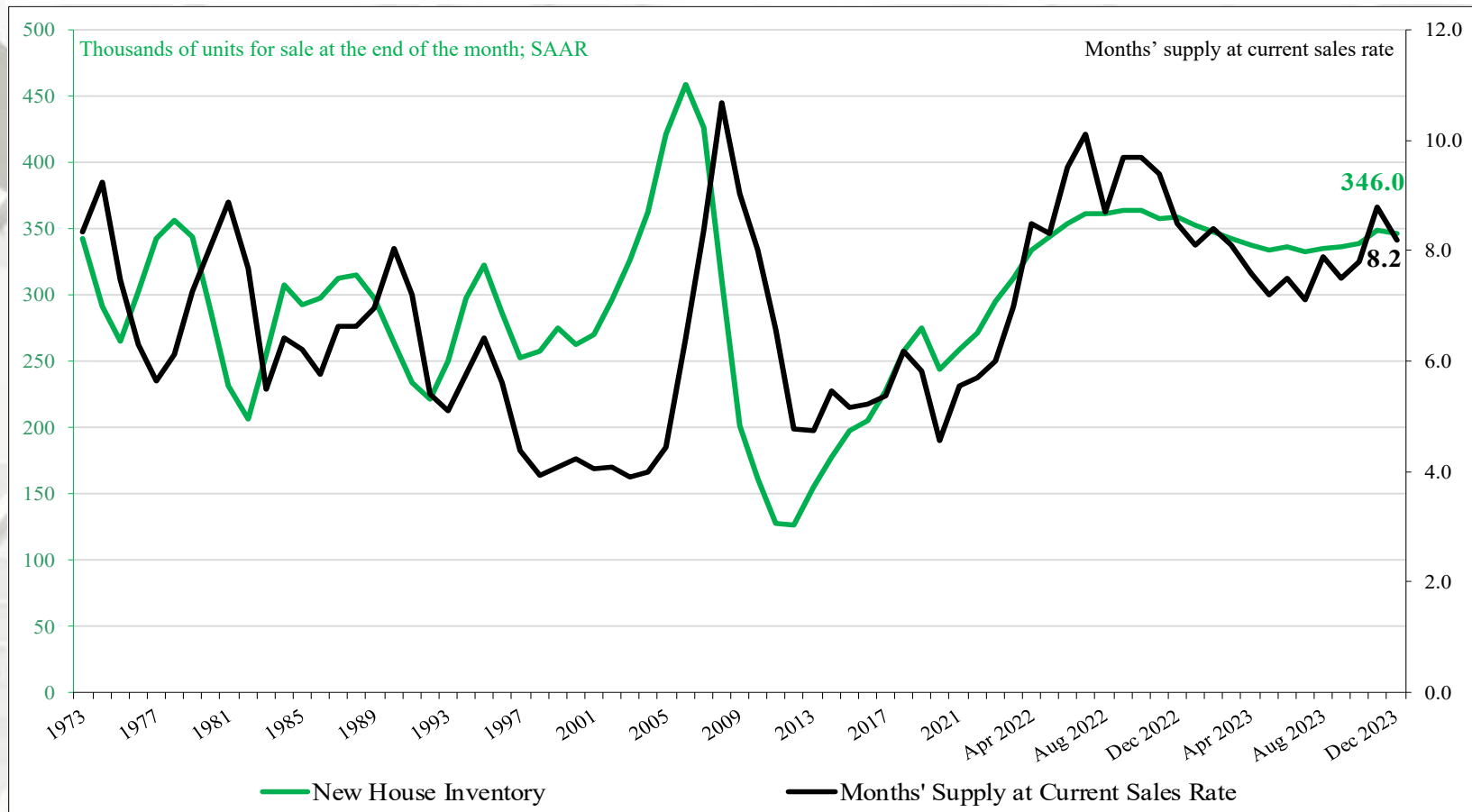
[a] New HUC + New House Completions (sales data only)

The months' supply of new houses for sale at the end of December was 8.2, greater than the historically preferred number of five- to six-months (SAAR).
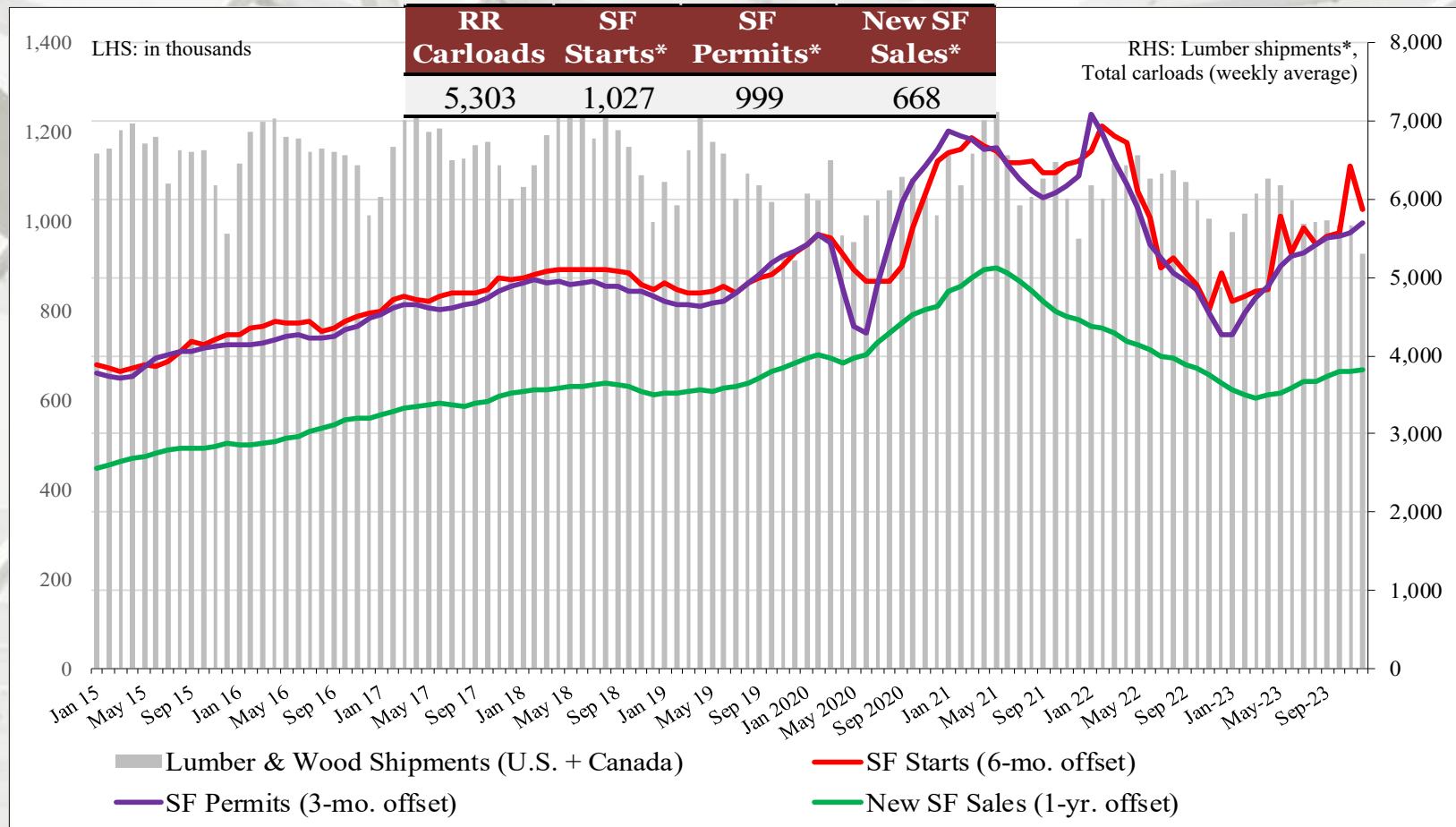
U.S.-Canada Lumber & Wood Shipments vs. SF Starts, Permits, and New Sales
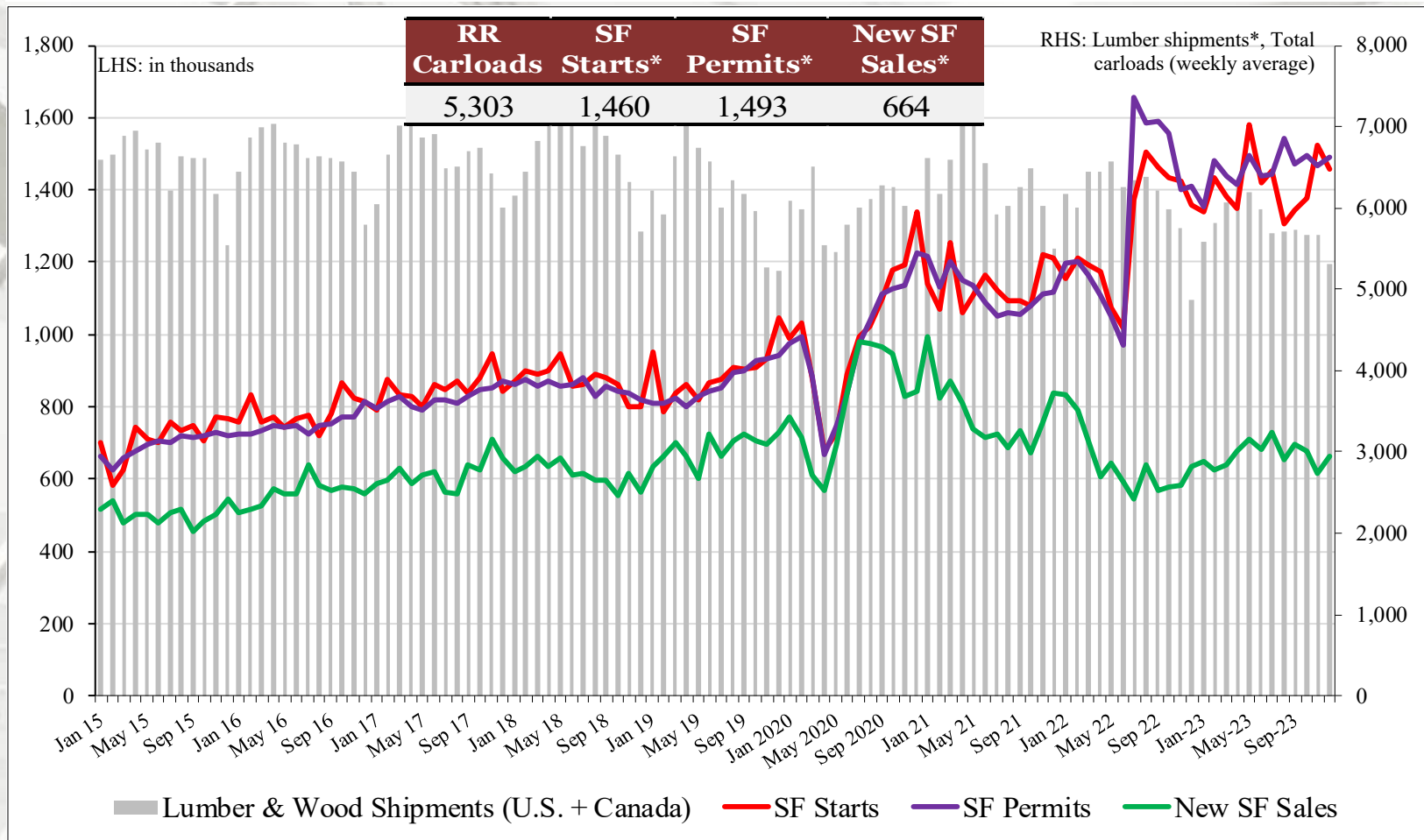
	RR Carloads	SF Starts*	SF Permits*	New SF Sales*
	5,303	1,460	1,493	664

LHS: in thousands

RHS: Lumber shipments*, Total carloads (weekly average)

Legend: Lumber & Wood Shipments (U.S. + Canada) — SF Starts — SF Permits — New SF 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

RR Carloads	SF Starts*	SF Permits*	New SF Sales*
5,303	1,027	999	668

LHS: in thousands

RHS: Lumber shipments*, Total carloads (weekly average)

Legend:
- Lumber & Wood Shipments (U.S. + Canada)
- SF Starts (6-mo. offset)
- SF Permits (3-mo. offset)
- New SF Sales (1-yr. offset)

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.

December 2023 Construction Spending

	Total Private Residential*	SF	MF	Improvement**
December	$911,713	$427,435	$135,932	$348,346
November	$898,768	$420,734	$135,554	$342,480
2022	$853,718	$388,774	$121,435	$343,509
M/M change	1.4%	1.6%	0.3%	1.7%
Y/Y change	6.8%	9.9%	11.9%	1.4%

* 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.
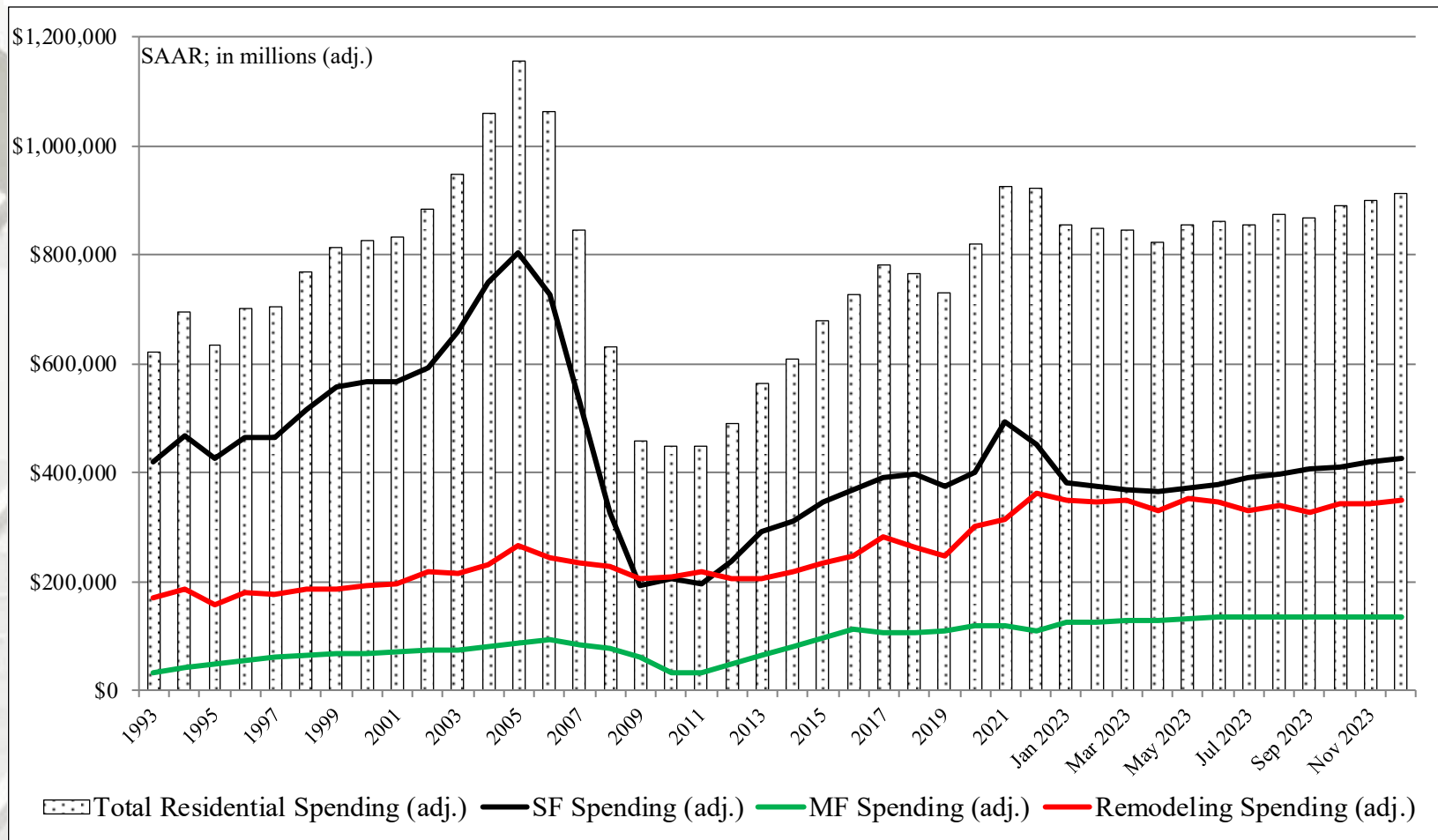
Total Construction Spending (nominal): 2000 – December 2023

LHS: SF, MF, & R&R $$$
SAAR; in millions

RHS: Total $$$

Legend:
- ⬚ Total Residential Spending (nominal)
- ━ SF Spending (nominal)
- ━ MF Spending (nominal)
- ━ Remodeling Spending (nominal)
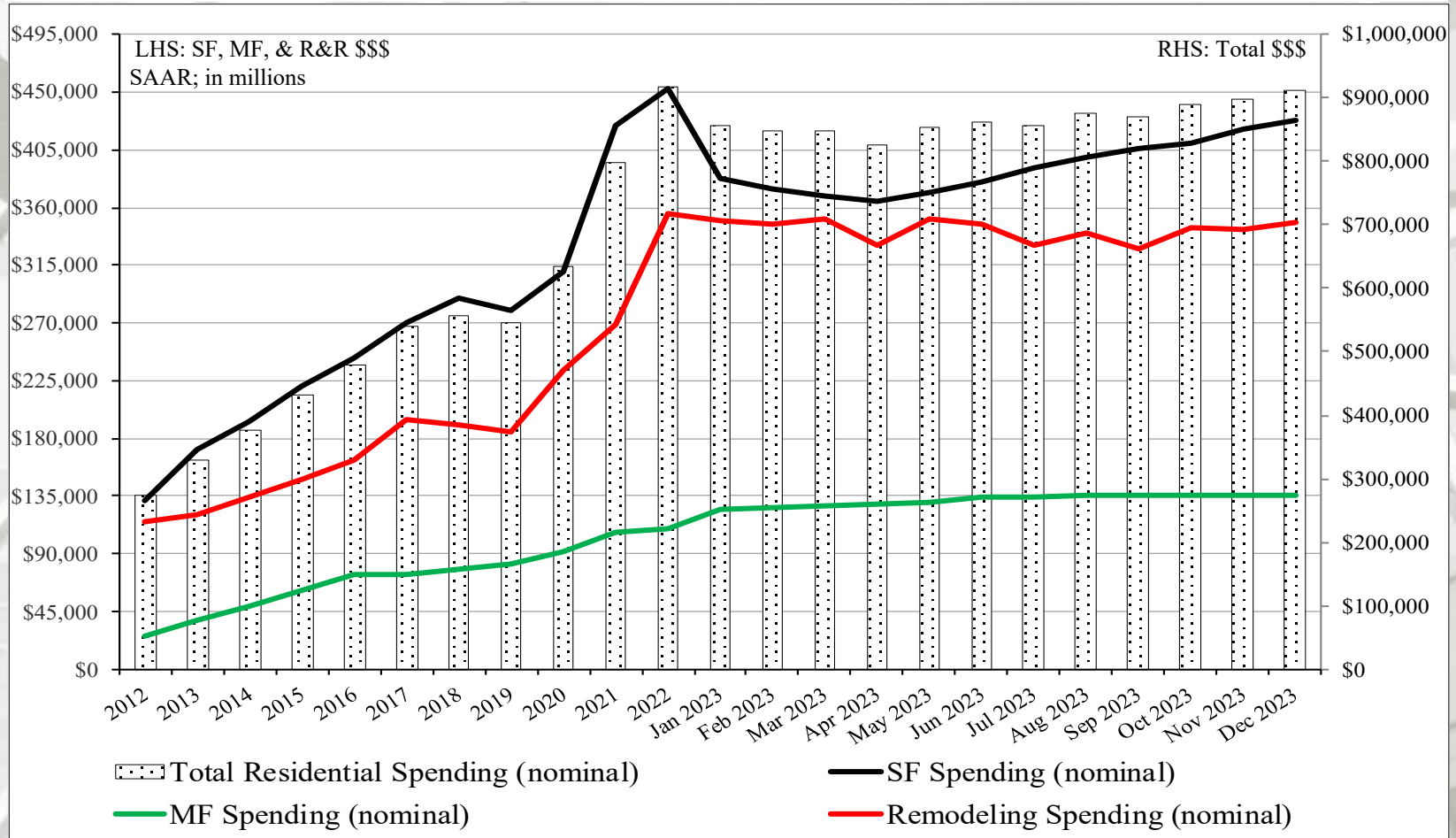
Reported in nominal US$.

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

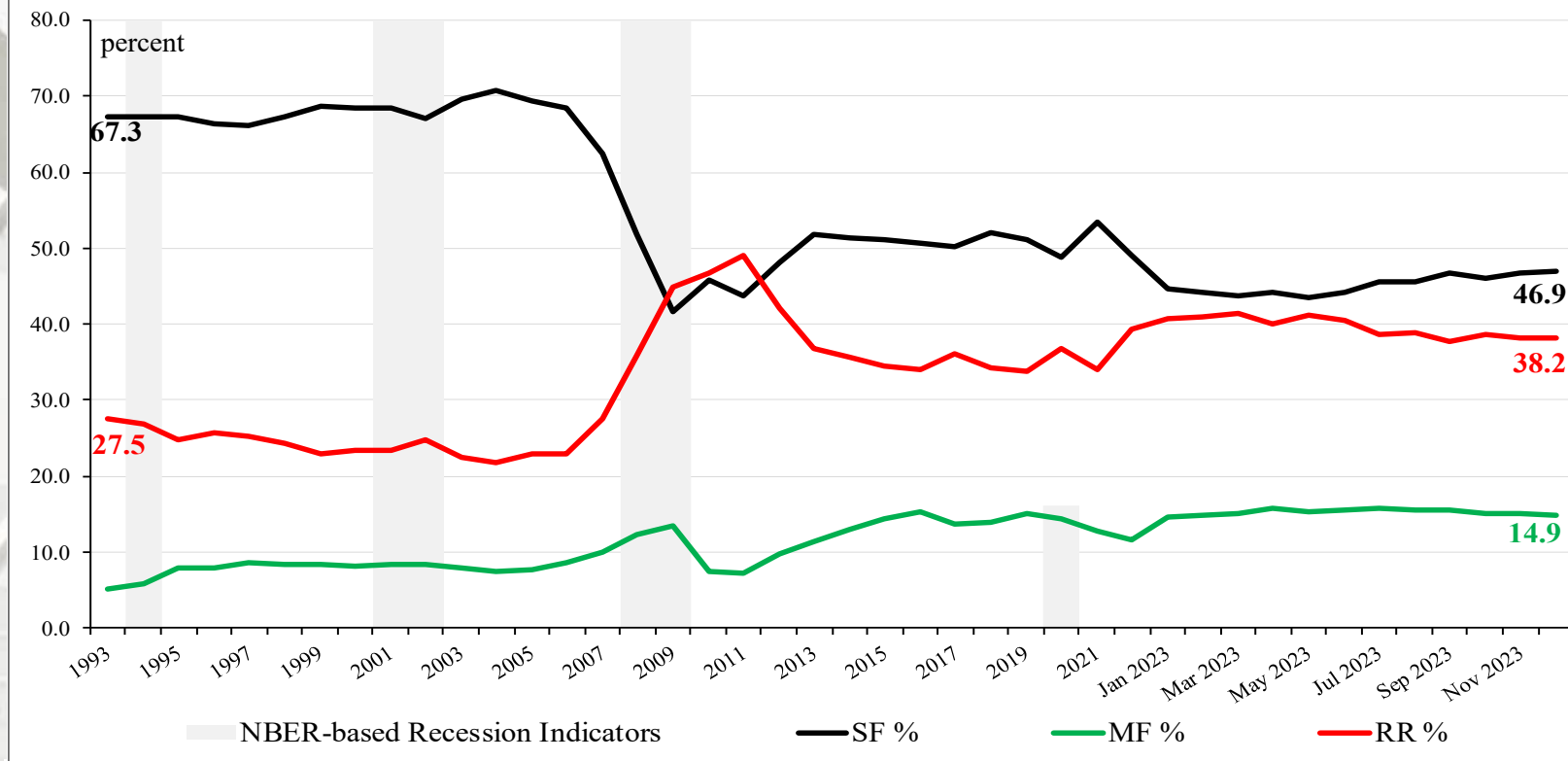# Total Construction Spending (adjusted): 1993 – December 2023

SAAR; in millions (adj.)

Legend: Total Residential Spending (adj.) · SF Spending (adj.) · MF Spending (adj.) · Remodeling Spending (adj.)

Reported in adjusted $US: 1993 – 2021 (adjusted for inflation, BEA Table 1.1.9); January 2023 to December 2023 reported in nominal US$.

Construction Spending Shares:
1993 – December 2023

SF, MF, & RR: Percent of Total Residential Spending (adj.)

Legend: NBER-based Recession Indicators — SF % (black) — MF % (green) — RR % (red)

Values marked on chart: 67.3, 27.5, 46.9, 38.2, 14.9

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); December 2022 reported in nominal US$.

* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).
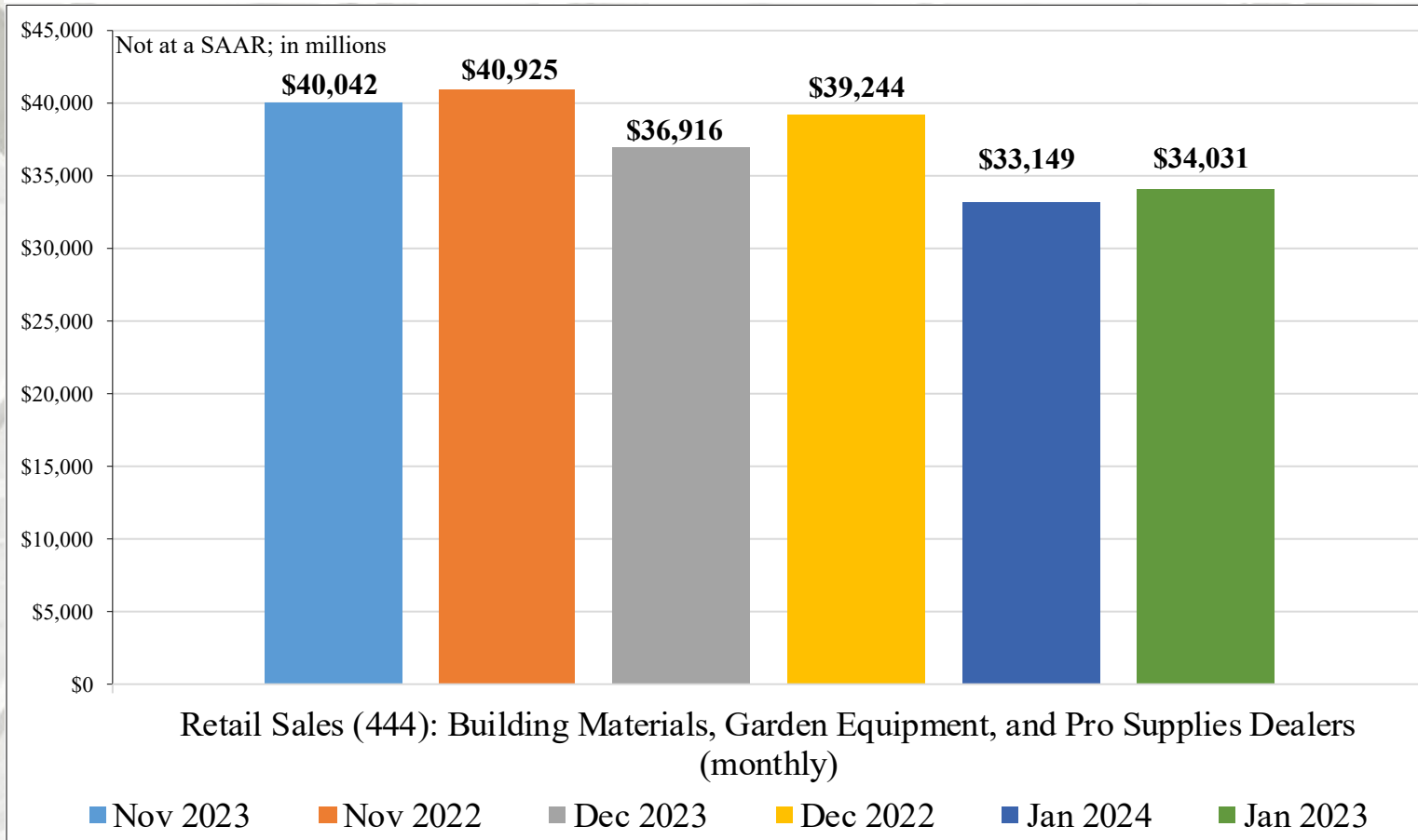
Construction Spending: Y/Y Percentage Change
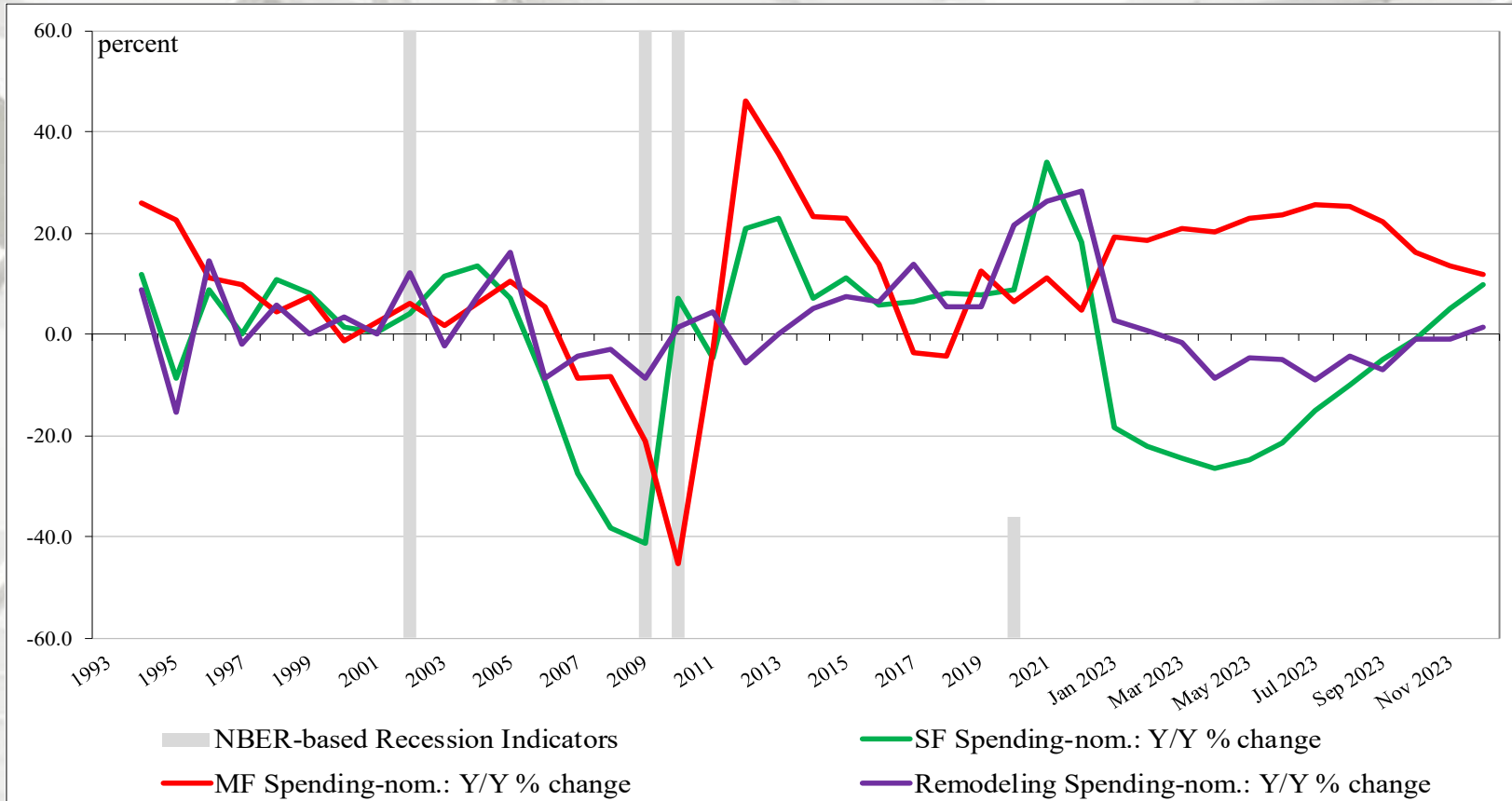
Nominal Residential Construction Spending:

Y/Y percentage change, 1993 to December 2023

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

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

Adjusted Construction Spending:
Y/Y Percentage Change

percent

Legend:
- Total Residential Spending Y/Y % change (adj.)
- SF Spending Y/Y % change (adj.)
- MF Spending Y/Y % change (adj.)
- Remodeling Spending Y/Y % change (adj.)
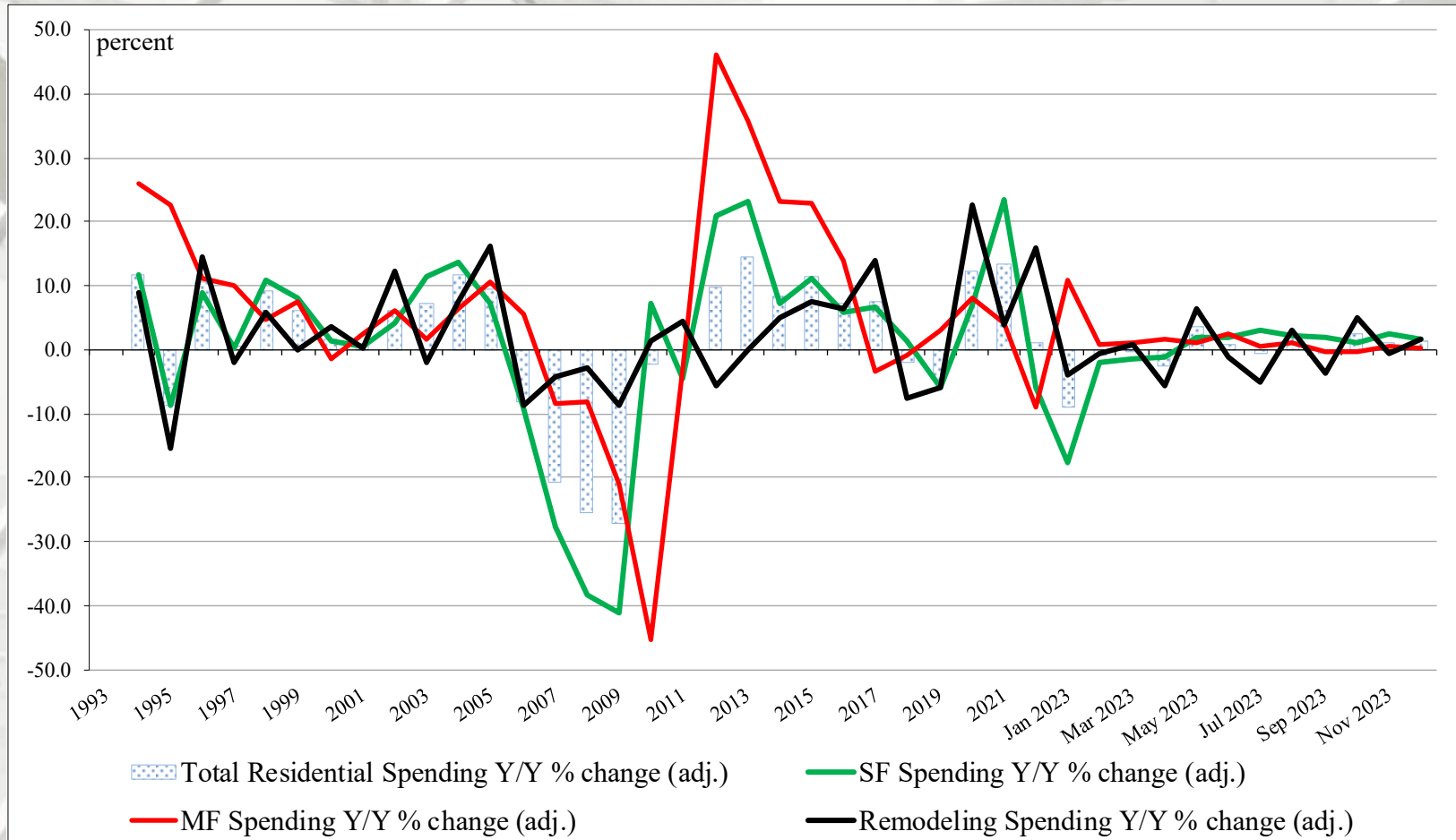
Adjusted Residential Construction Spending:
Y/Y percentage change, 1993 to December 2023

Remodeling

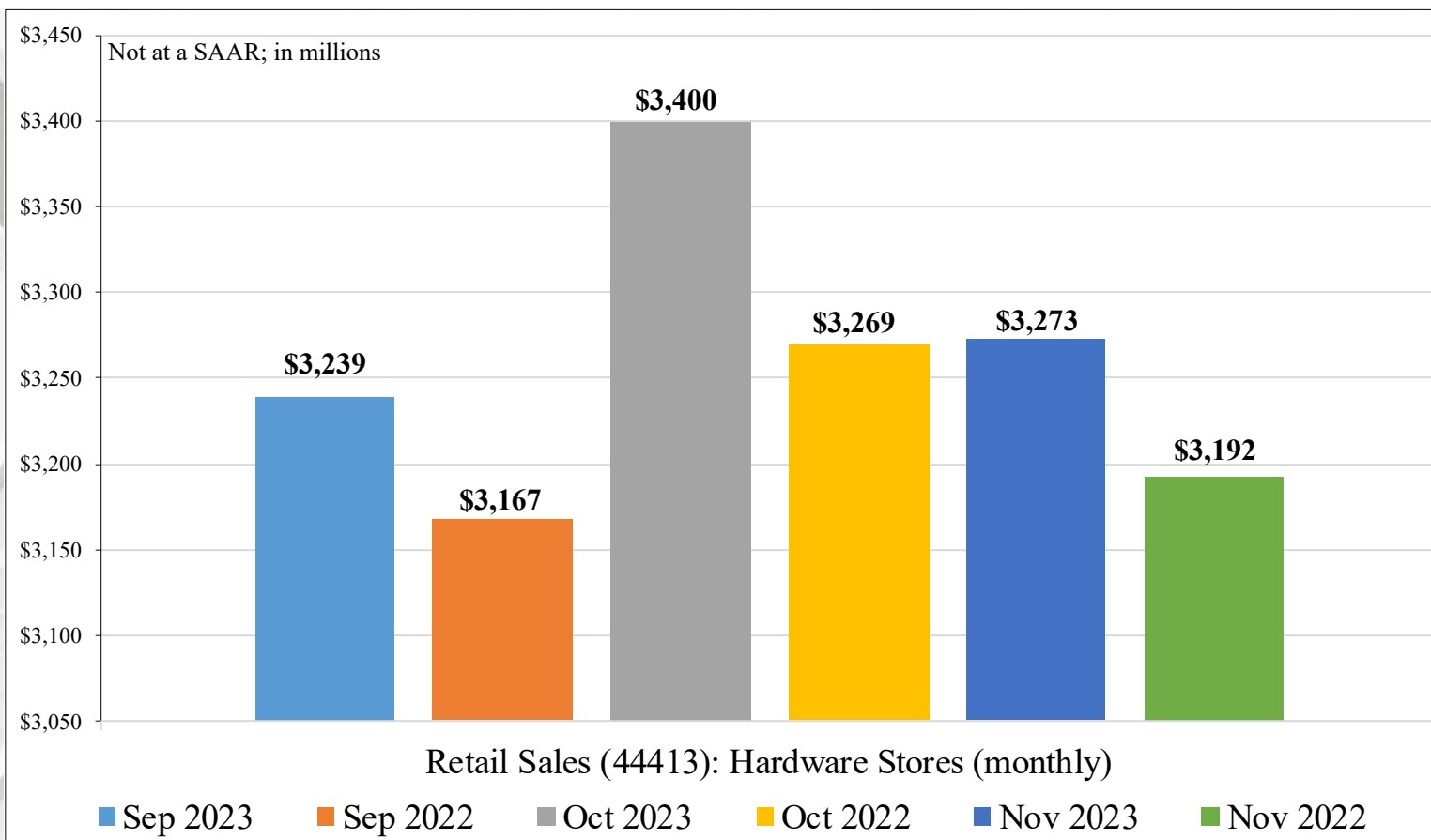## Retail Sales: Building materials, Garden Equipment, & PRO Supply Dealers

Not at a SAAR; in millions

$40,042 (Nov 2023) · **$40,925** (Nov 2022) · **$36,916** (Dec 2023) · **$39,244** (Dec 2022) · **$33,149** (Jan 2024) · **$34,031** (Jan 2023)

Retail Sales (444): Building Materials, Garden Equipment, and Pro Supplies Dealers (monthly)

Legend: ■ Nov 2023 ■ Nov 2022 ■ Dec 2023 ■ Dec 2022 ■ Jan 2024 ■ Jan 2023

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

NAICS 444 sales decreased 10.2% in January 2024 from December 2023 and declined 6.4% Y/Y (on a non-adjusted basis).

Remodeling

Retail Sales: Hardware Stores

Not at a SAAR; in millions

$3,239 — Sep 2023
$3,167 — Sep 2022
$3,400 — Oct 2023
$3,269 — Oct 2022
$3,273 — Nov 2023
$3,192 — Nov 2022

Retail Sales (44413): Hardware Stores (monthly)

■ Sep 2023 ■ Sep 2022 ■ Oct 2023 ■ Oct 2022 ■ Nov 2023 ■ Nov 2022

Hardware Stores: NAICS 44413

NAICS 44413 retail sales increased 0.7% in December 2023 from November 2023 and declined 2.2% Y/Y (on a non-adjusted basis).

Remodeling

Average 2024 Full-Year Professional Remodeler Revenue Growth Outlook

■ 4Q23 ■ 3Q23

Home improvement pros — 7.5% (4Q23), 2.5% (3Q23)

Design-build firms — 6.4% (4Q23), 4.3% (3Q23)

Full-service remodelers — 5.5% (4Q23), 2.9% (3Q23)

Sources: Qualified Remodeler; John Burns Research and Consulting, LLC (Data: 4Q23, Pub: Jan-24)

John Burns Research & Consulting LLC

"Here is a great sign for the economy and housing market in 2024. Remodelers have grown far more optimistic about their revenue growth potential in 2024, compared to just one quarter ago. Sample size = 683 large remodelers." – John Burns, Chief Executive Officer, John Burns Research & Consulting LLC

Existing House Sales

National Association of Realtors®

	Existing Sales	Median Price	Month's Supply
December	3,780,000	$382,600	3.2
November	3,820,000	$387,700	3.5
2022	4,030,000	$366,500	2.9
M/M change	-1.0%	-1.3%	-8.6%
Y/Y change	-6.2%	4.4%	10.3%

All sales data: SAAR

Existing House Sales

	NE	MW	S	W
December	470,000	900,000	1,720,000	690,000
November	470,000	940,000	1,770,000	640,000
2022	520,000	1,010,000	1,800,000	700,000
M/M change	0.0%	-4.3%	-2.8%	7.8%
Y/Y change	-9.6%	-10.9%	-4.4%	-1.4%

	Existing SF Sales	SF Median Price
December	3,400,000	$387,000
November	3,410,000	$392,200
2022	3,620,000	$372,000
M/M change	-0.3%	-1.3%
Y/Y change	-6.1%	4.0%

All sales data: SAAR.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 1/19/23

Existing House Sales

SAAR; in thousands

Total Existing Sales *		
Total NE	470,000	12.4%
Total MW	900,000	23.8%
Total S	1,720,000	45.5%
Total W	690,000	18.3%

Legend: Total U.S. — U.S. SF — NE — MW — S — W
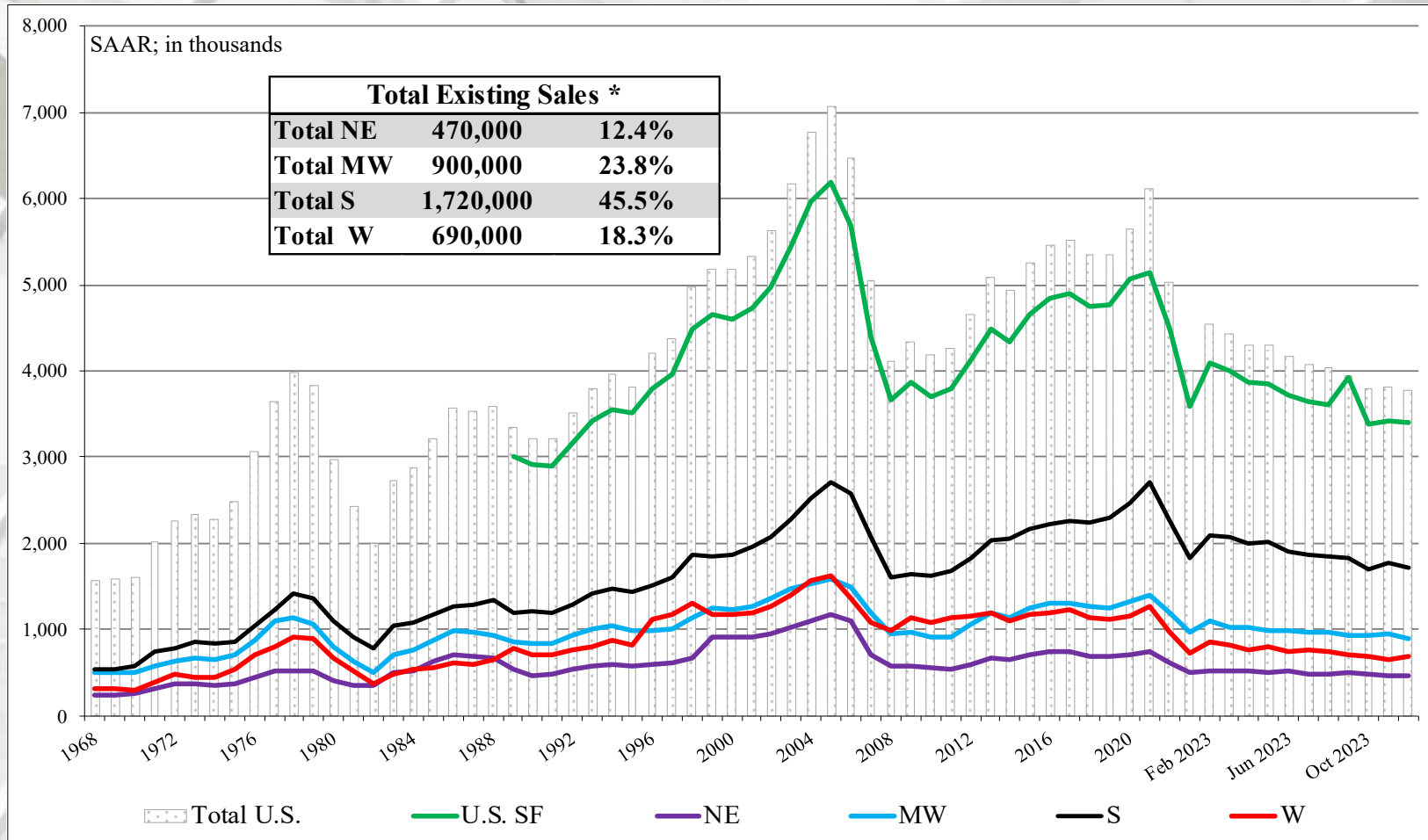
NE = Northeast; MW = Midwest; S = South; W = West
* Percentage of total existing sales.

Source: https://fred.stlouisfed.org/series/EXHOSLUSM495S; 1/19/23

U.S. Housing Prices

Federal Housing Finance Agency

U.S. House Price Index

FHFA House Price Index Up 0.3 Percent in November; Up 6.6 Percent from Last Year

Significant Findings

"U.S. house prices rose in November, up **0.3 percent** from October, according to the Federal Housing Finance Agency (FHFA) seasonally adjusted monthly House Price Index (HPI®). House prices rose **6.6 percent** from November 2022 to November 2023. The previously reported **0.3 percent** price increase in October remained unchanged.

For the nine census divisions, seasonally adjusted monthly price changes October 2023 to November 2023 ranged from **-0.2 percent** in the New England division to **+0.7 percent** in the Mountain division. The 12-month changes ranged from **+3.1 percent** in the West South Central division to **+9.8 percent** in the New England division." – Adam Russell, FHFA

"U.S. house prices continued to appreciate in November, with year-over-year growth slightly above the historical average. All nine census divisions experienced positive price appreciation over the last 12 months, with five census divisions exhibiting deceleration compared to the price appreciation observed last year." – 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)

Nov-23
417.4

Compound Annual Growth Rate Since January 1991: 4.4%
Compound Annual Growth Rate Since January 2000: 4.8%
Compound Annual Growth Rate Since January 2012: 7.5%

Source: FHFA
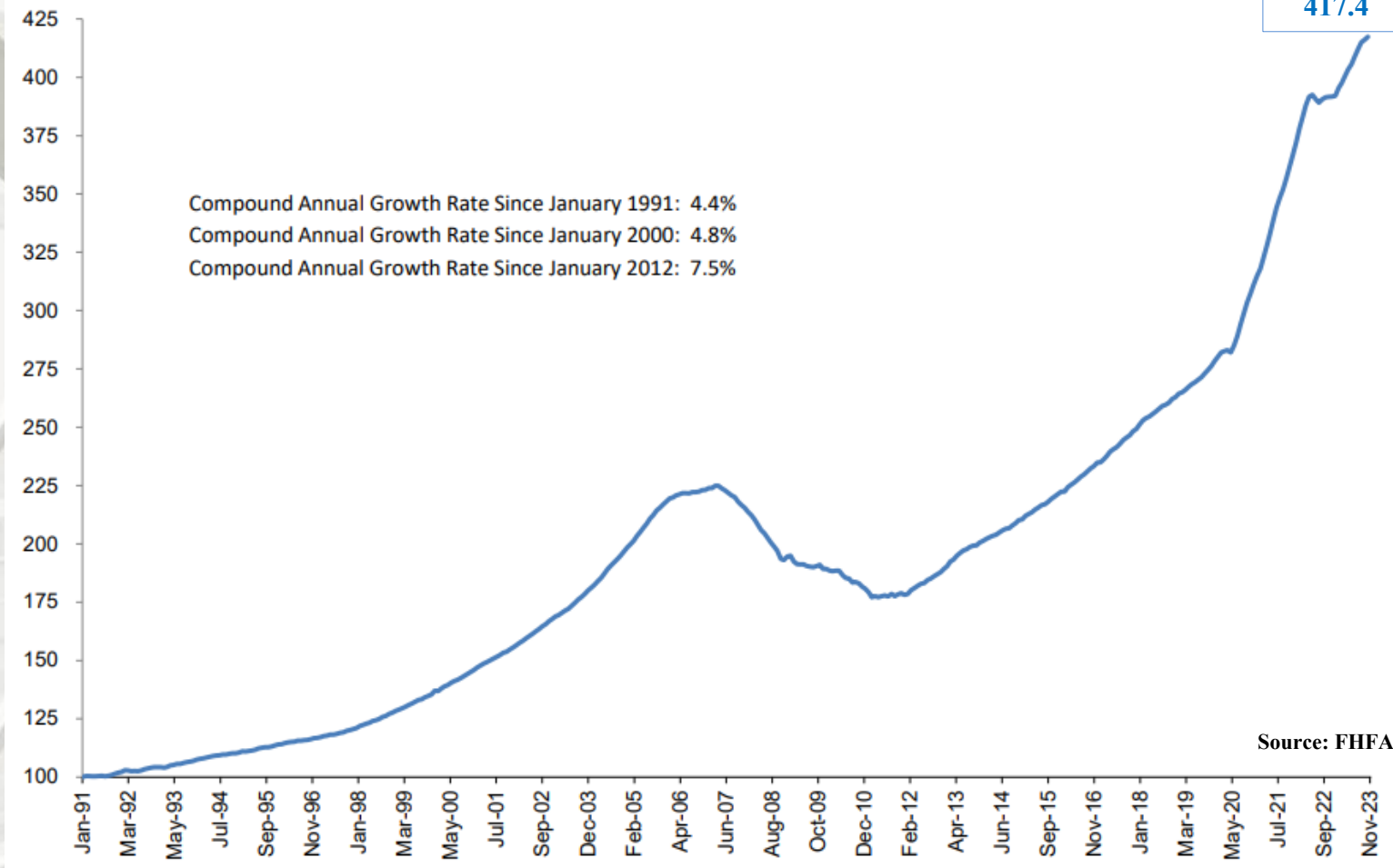
U.S. Housing Prices

S&P CoreLogic Case-Shiller Index
Decelerates in November

"S&P Dow Jones Indices (S&P DJI) released the latest results for the S&P CoreLogic Case-Shiller Indices, the leading measure of U.S. home prices. Data released November 2023 show that 12 out of the 20 major metro markets reported month-over-month price decreases. More than 27 years of history are available for the data series and can be accessed in full by going to 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 5.1% annual gain in November, up from a 4.7% rise in the previous month. The 10-City Composite showed an increase of 6.2%, up from a 5.7% increase in the previous month. The 20-City Composite posted a year-over-year increase of 5.4%, up from a 4.9% increase in the previous month. Once again, Detroit reported the highest year-over-year gain among the 20 cities with an 8.2% increase in November, followed again by San Diego with an 8% increase. For the third month in a row, Portland fell 0.7% and remained the only city reporting lower prices in November versus a year ago. …

Month-Over-Month

For the first time since January 2023, the U.S. National Index and 20-City Composite posted 0.2% month-over-month decreases in November, while the 10-City Composite posted a 0.1% decrease. After seasonal adjustment, the U.S. National Index and the 10-City Composite posted month-over-month increases of 0.2%, while the 20-City Composite posted a month-over-month increase of 0.1%." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI

U.S. Housing Prices

S&P CoreLogic Case-Shiller Index
Analysis

"U.S. home prices edged downward from their all-time high in November. The streak of nine monthly gains ended in November, setting the index back to levels last seen over the summer months. Seattle and San Francisco reported the largest monthly declines, falling 1.4% and 1.3%, respectively.

November's year-over-year gain saw the largest growth in U.S. home prices in 2023, with our National Composite rising 5.1% and the 10-city index rising 6.2%. Detroit held its position as the best performing market for the third month in a row, accelerating to an 8.2% gain. San Diego notched an 8% annual gain, retaining its second spot in the nation. Barring a late surge from another market, those cities will vie for the 'housing market of the year' as the best performing city in our composite.

Six cities registered a new all-time high in November (Miami, Tampa, Atlanta, Charlotte, New York, and Cleveland). Portland remains the lone market in annual decline. The Northeast and Midwest recorded the largest gains with returns of 6.4% and 6.3%, respectively. Other regions are not far behind with the slowest gains in the West of 3%. This month's report revealed the narrowest spread of performance across the nation since the first quarter of 2021.

The tight disparity speaks to a rising tide across the country, with less evidence of micro-markets bucking the trend. The days of markets in the South rising double digits with markets in the Midwest remaining flat are over. The house price decline came at a time where mortgage rates peaked, with the average Freddie Mac 30-year fixed rate mortgage nearing 8%, according to Federal Reserve data. The rate has since fallen over 1%, which could support further annual gains in home prices." – Brian D. Luke, Head of Commodities, Real & Digital Assets, S&P DJI
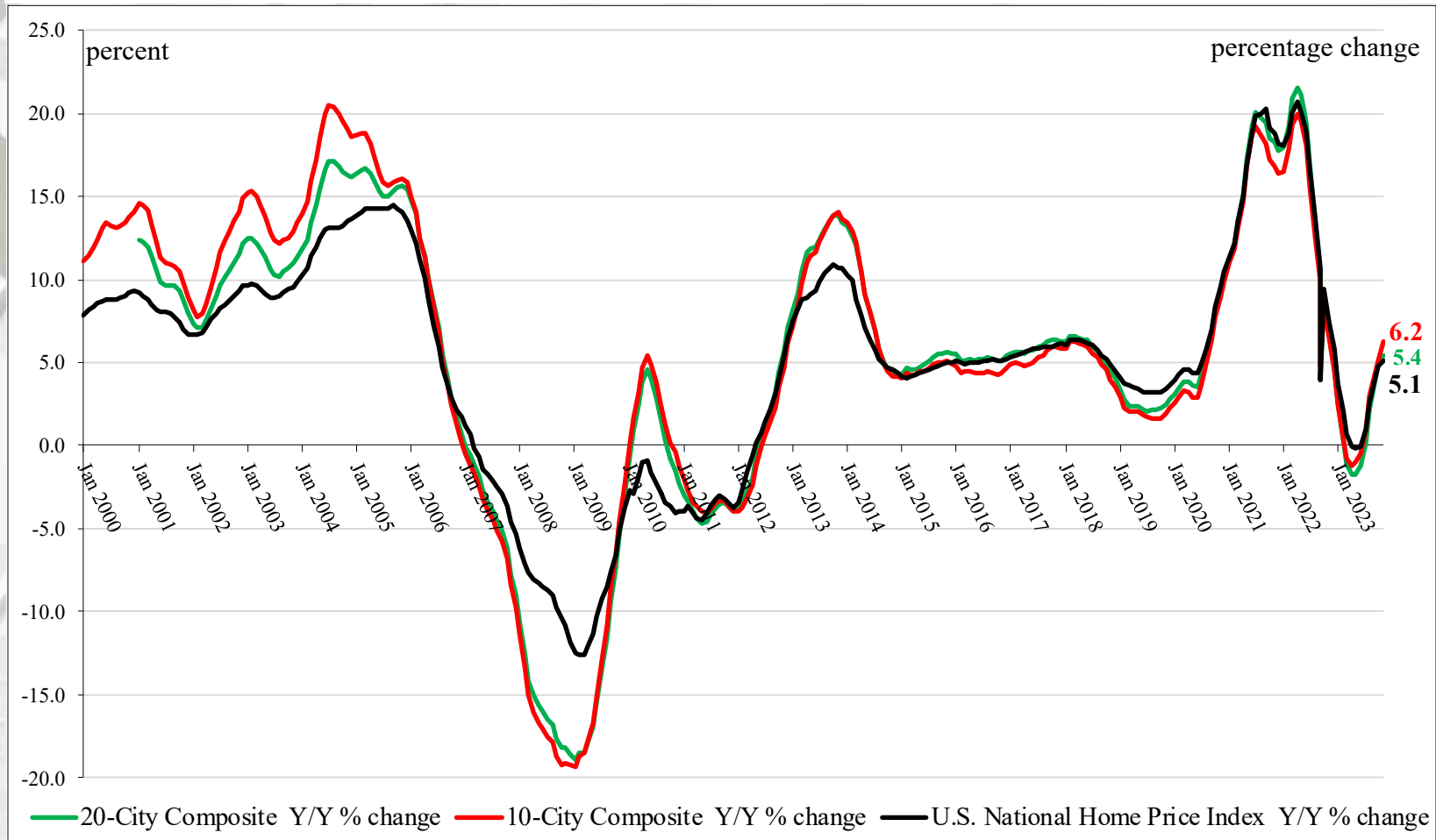
S&P/Case-Shiller Home Price Indices
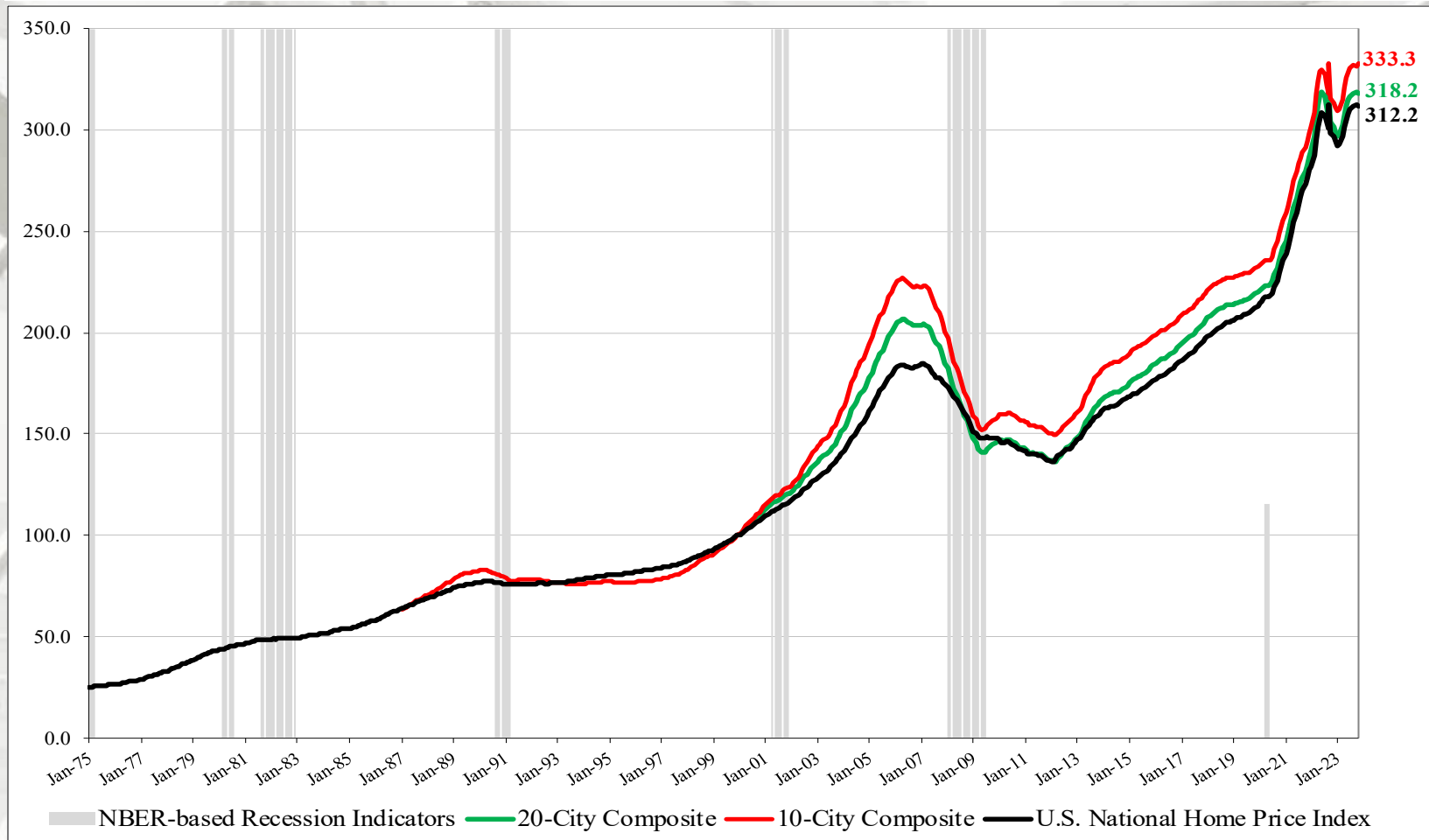
* NBER based Recession Indicator Bars for the United States from the Period following the Peak through the Trough (FRED, St. Louis).
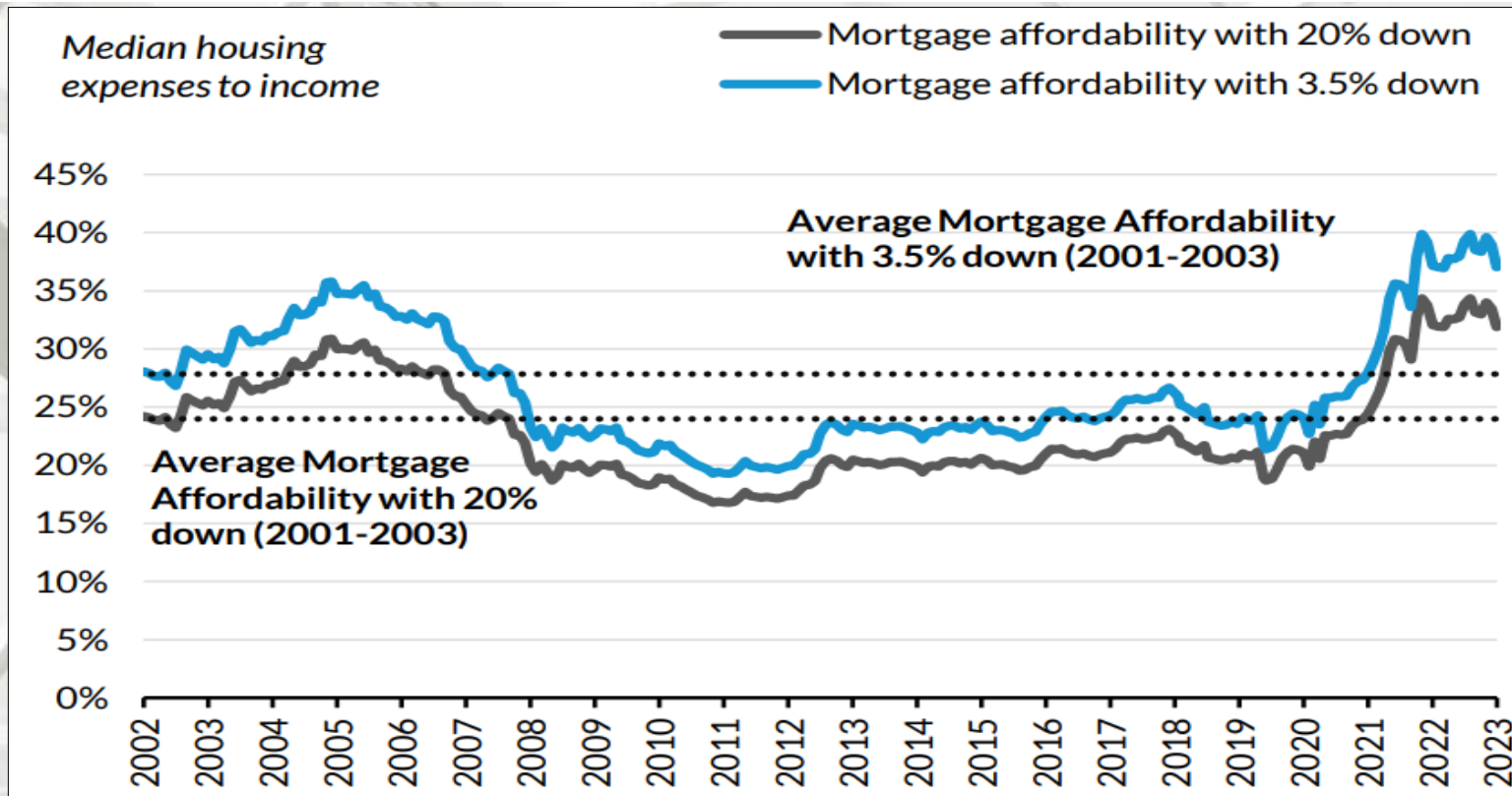
S&P/Case-Shiller Home Price Indices

percent   percentage change

6.2
5.4
5.1

── 20-City Composite Y/Y % change   ── 10-City Composite Y/Y % change   ── U.S. National Home Price Index Y/Y % change

Y/Y Price Change

From November 2022 to November 2023, the National Index indicated a 5.1% increase; the Ten-City improved by 6.2%, and the Twenty-City increased by 5.4%.

U.S. Housing Affordability

Median housing expenses to income

— Mortgage affordability with 20% down
— Mortgage affordability with 3.5% down

Average Mortgage Affordability with 3.5% down (2001-2003)

Average Mortgage Affordability with 20% down (2001-2003)

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

National Mortgage Affordability Over Time

"Mortgage affordability, while marginally better than in October, remains close to the worst level since the inception of this series in 2002. As of December 2023, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.9 percent, higher than the 30.9 percent at the peak of the housing bubble in November 2005; and with 3.5 percent down the housing cost burden is 37.0 percent, also above the 35.8 percent prior peak in November 2005." – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. First-Time House Buyers
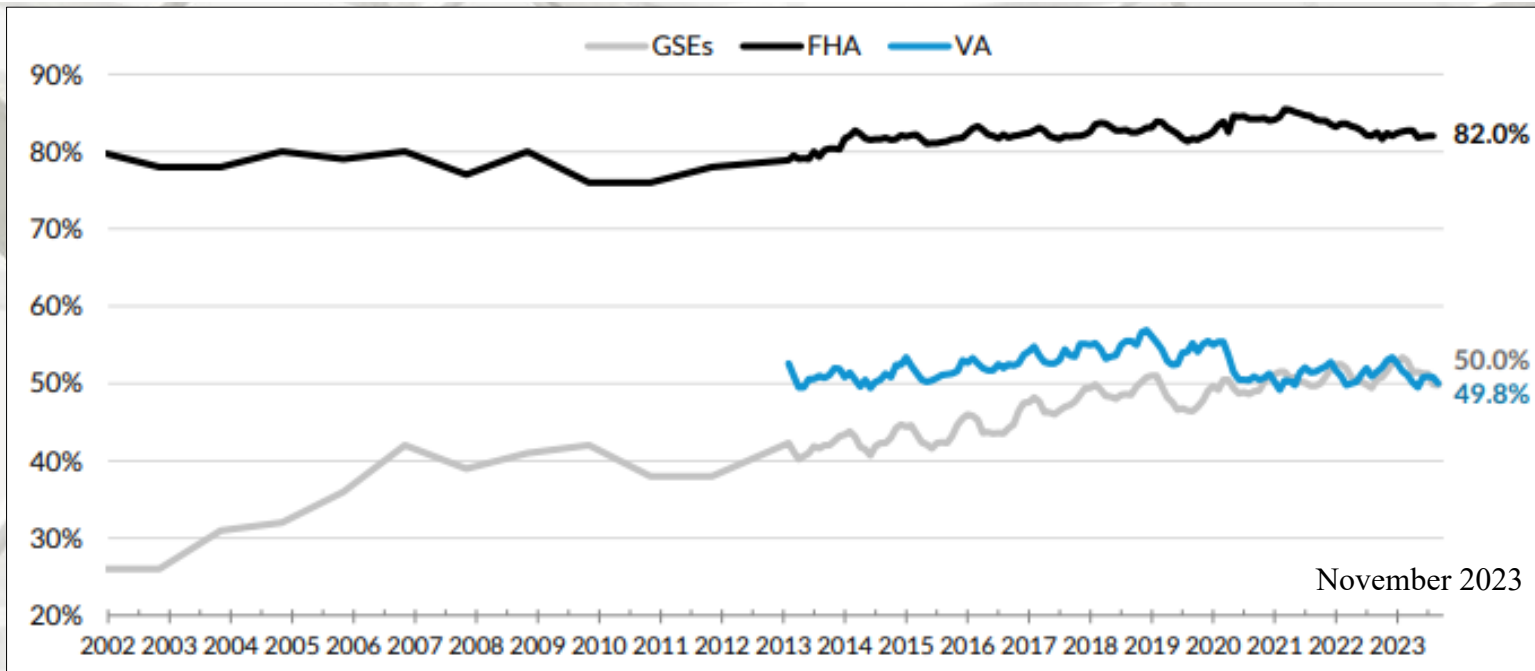
Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.
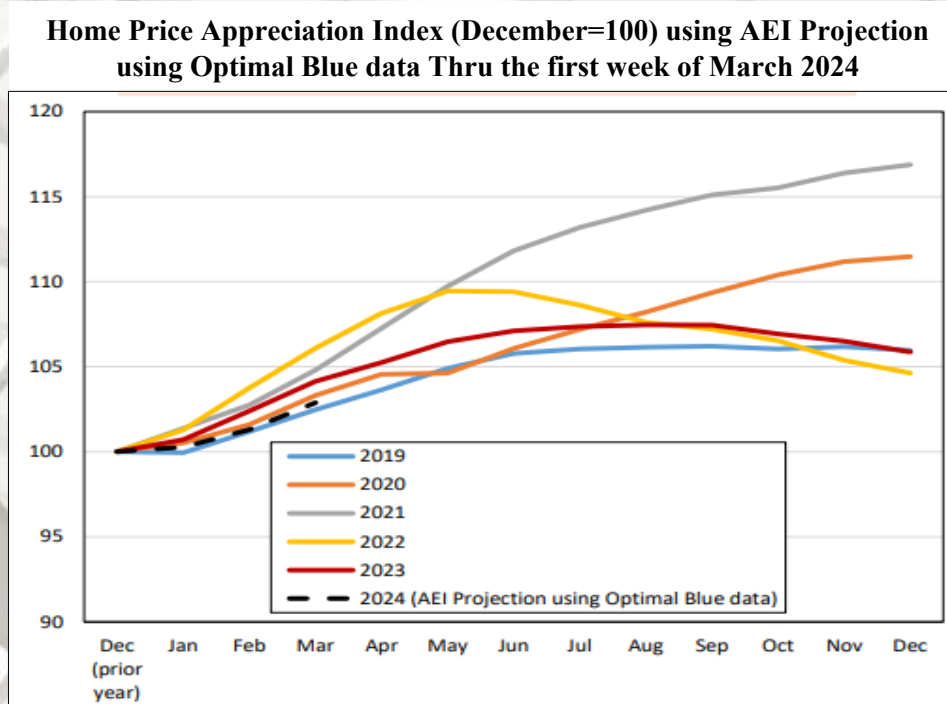
Urban Institute

First-time House Buyer Share

"In October 2023, the FTHB share for FHA, which has always been more focused on first time home buyers, was 82.0 percent. The FTHB share of GSE lending in November was 50.0 percent; the VA share was 49.8 percent. ..." – Laurie Goodman *et. al*, Vice President, Urban Institute

U.S. Housing Affordability

Home Price Appreciation Index (December=100) using AEI Projection using Optimal Blue data Thru the first week of March 2024

AEI Housing Center

December 2024 YoY HPA Projection

"+5%: Base Case HPA Projection for Dec. 2024
 • Assumes mortgage rate at 6.00%-7.5%, unemployment rate <= 5.5%, and months' supply < 5 months.
 • +6% to +8%: Bullish Case Projection for Dec. 24
 • Assumes mortgage rate at 4.50%-6.00%, unemployment rate <= 5.5%, and months' supply < 5 months.
 • -5% to -7%: Bearish Case Projection for Dec. 2024
 • Assumes mortgage rate at 7.50%-9.00%, unemployment rate > 5.5% and <= 7.5%, and months' supply > 7 months.
 • Note: These things might occur at different times over the projection period." – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center
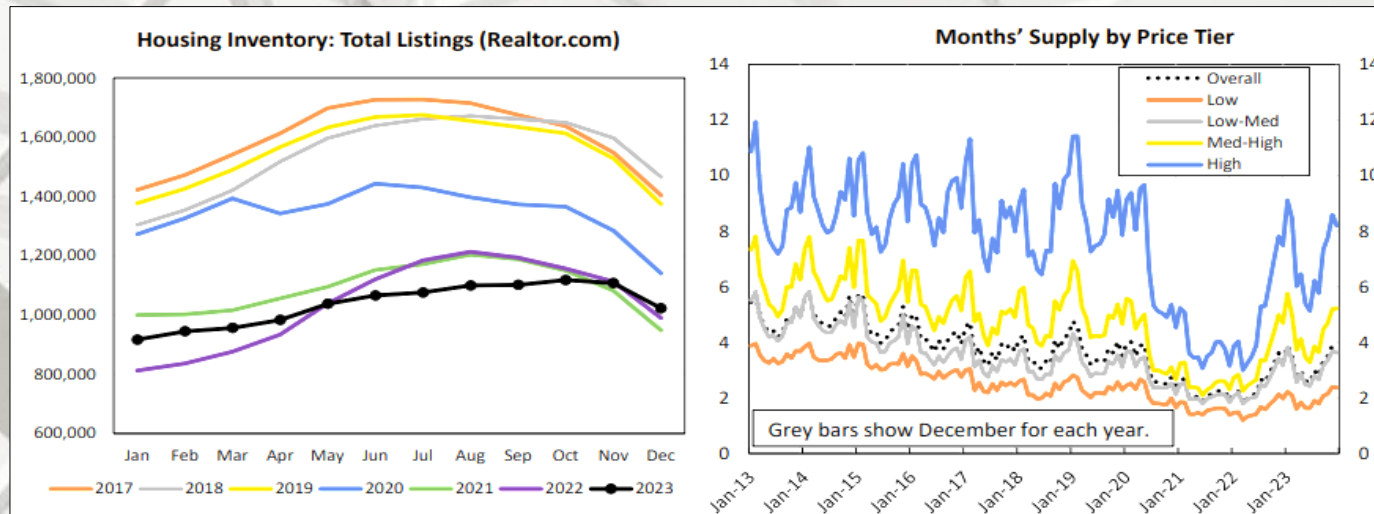
Home Price Appreciation by Price Tier
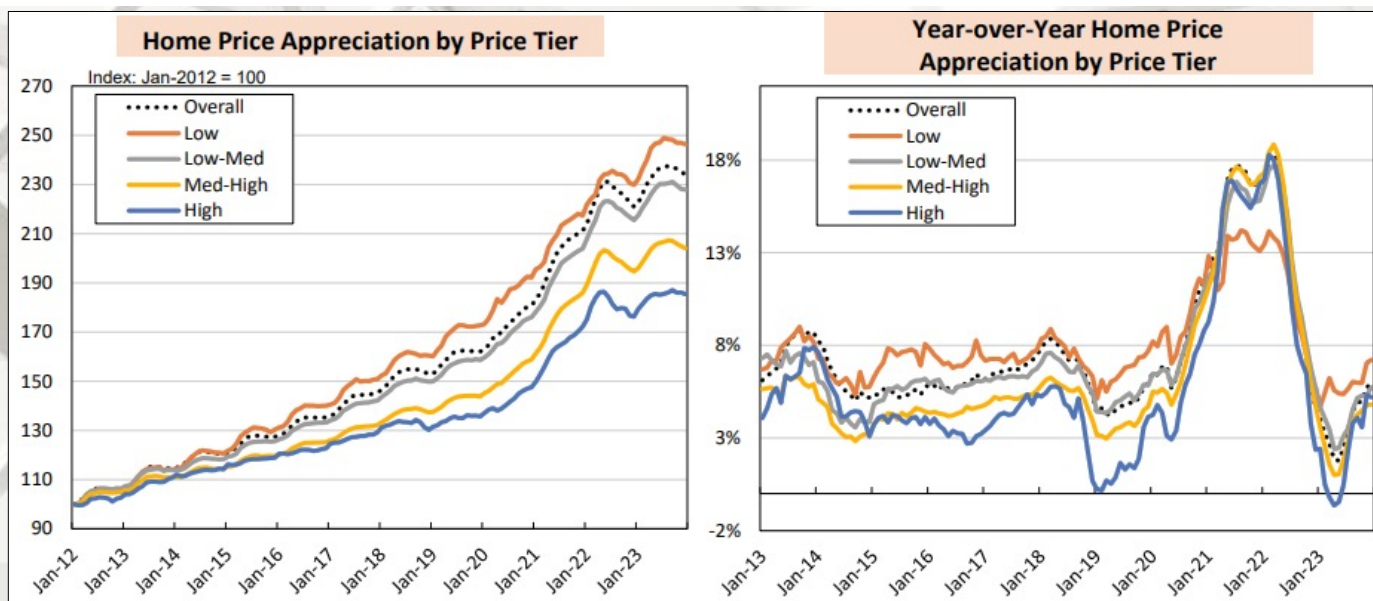
Note: Data are for the entire country. Data for December 2023 are preliminary .
Source: AEI Housing Center, www.AEI.org/housing

AEI Housing Center

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

- Preliminary numbers for December 2023 indicate that the low price tier leads the YoY change in tier home prices at 7.2% due to low months' supply (2.4 months), low unemployment, and increasing demand promoted by agency credit easing (right panel).

- Being more dependent on the Fed's monetary punchbowl, the med-high and high price tiers have had the largest slowdowns in YoY HPA. However, this deceleration has ended as of May 2023.

- As of December 2023, all price tiers have shown relatively robust YoY HPA from the slowest at 4.8% (med-high) to the highest of 7.2% (low)." – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

Source: https://www.aei.org/research-products/report/aei-housing-market-indicators-january-2024/; 1/30/24

Housing Inventory and Months' Supply

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

AEI Housing Center

"Months' remaining supply was 3.8 months (not seasonally-adjusted) in December 2023. Housing inventory continued to run below pre-pandemic levels, which helps explain the robust YoY HPA.

- December housing inventory, down 8% from November 2023, was a few months late, as November represented a delayed seasonal peak. Despite the unusual increase in total listings through the fall, it is still near the series low, signaling low inventory levels heading into the winter. Notwithstanding rates around 7%, the supply-demand imbalance evidenced by continued tight months' supply will fuel continued upward price pressures (left panel).

- Inventory today is at about 70% of 2017-2019 levels, indicating an unhealthy market (left panel).

- Months' supply stood at 3.8 months in December 2023, down from 3.9 months in November 2023 but up from 3.5 months in November 2019, the last comparable pre-pandemic month (right panel).

- Given historical data, months' supply would need to increase to > 7 months to enter a buyer's market and to 8-9 months to trigger a national YoY decline in home price appreciation." – Edward Pinto, Senior Fellow and Director and Tobias Peter, Research Fellow and Assistant Director, AEI Housing Center

U.S. Housing Finance

Mortgage Bankers Association (MBA)

Chart of the Week: 30-Year Fixed Rate (%)

"As we summarize the state of the mortgage market in 2023, there is one series in particular that encapsulates the situation, mortgage interest rates. After falling to record lows in late 2020 and remaining in the 3% range in 2021, rates climbed to over 7% in October 2022 and started 2023 at around 6.5%. 2023 has been rocky, with the MBA Weekly Applications Survey (WAS) 30-year fixed contract interest rate reaching 7.9% in October before retreating to the most recent reading of 6.83%.

Economic prices convey a lot of information, and mortgage rates summarize, among other factors, the Federal Reserve's actions to fight inflation, inherent uncertainty about future Treasury rates (e.g., Quantitative Tightening and large fiscal deficits), and the high value of mortgage prepayment options due to increased underlying interest rate volatility (leading to almost 300 basis point mortgage to Treasury spreads).

The effect of the 2023 rate environment has been to reduce the WAS Refinance Index by 89% compared to 2020-21 averages and shrink WAS purchase applications by 30% year to date. This year has been challenging, and MBA estimates that this year's total originations will be $1.64 trillion. Moreover, with house price appreciation remaining positive, MBA's Purchase Applications Payment Index (PAPI) shows that conditions remain tough for prospective homebuyers.

With 2023 almost behind us, what can we expect for 2024 and 2025? The Federal Open Market Committee's Summary of Economic Projections moved from September's higher-for-longer fed funds rate projection to a higher-for-not-so-much-longer projection in last week's release. This is welcome news for the mortgage market. MBA's forecast (blue diamonds in the chart) shows a steady decline to 6.1% and 5.5% in 2024 Q4 and 2025 Q4, with originations increasing to $2 trillion (22%) and $2.34 trillion (17%) in 2024 and 2025, respectively." – Eddie Seiler, Associate Vice President for Housing Economics; MBA

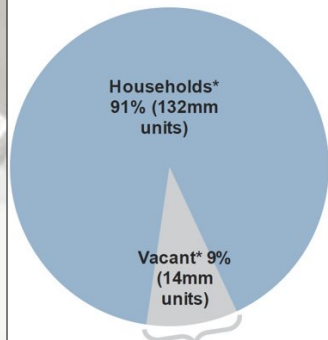# U.S. Housing

Mortgage Bankers Association (MBA)

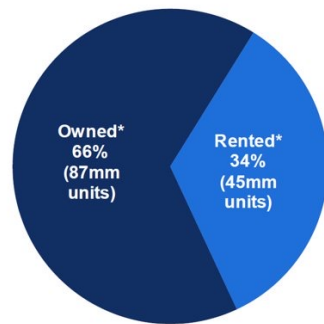## Chart of the Week: Chart of the Week: 30-Year Fixed Rate (%)

Chart of the Week - December 22, 2023
30-Year Fixed Rate (%)
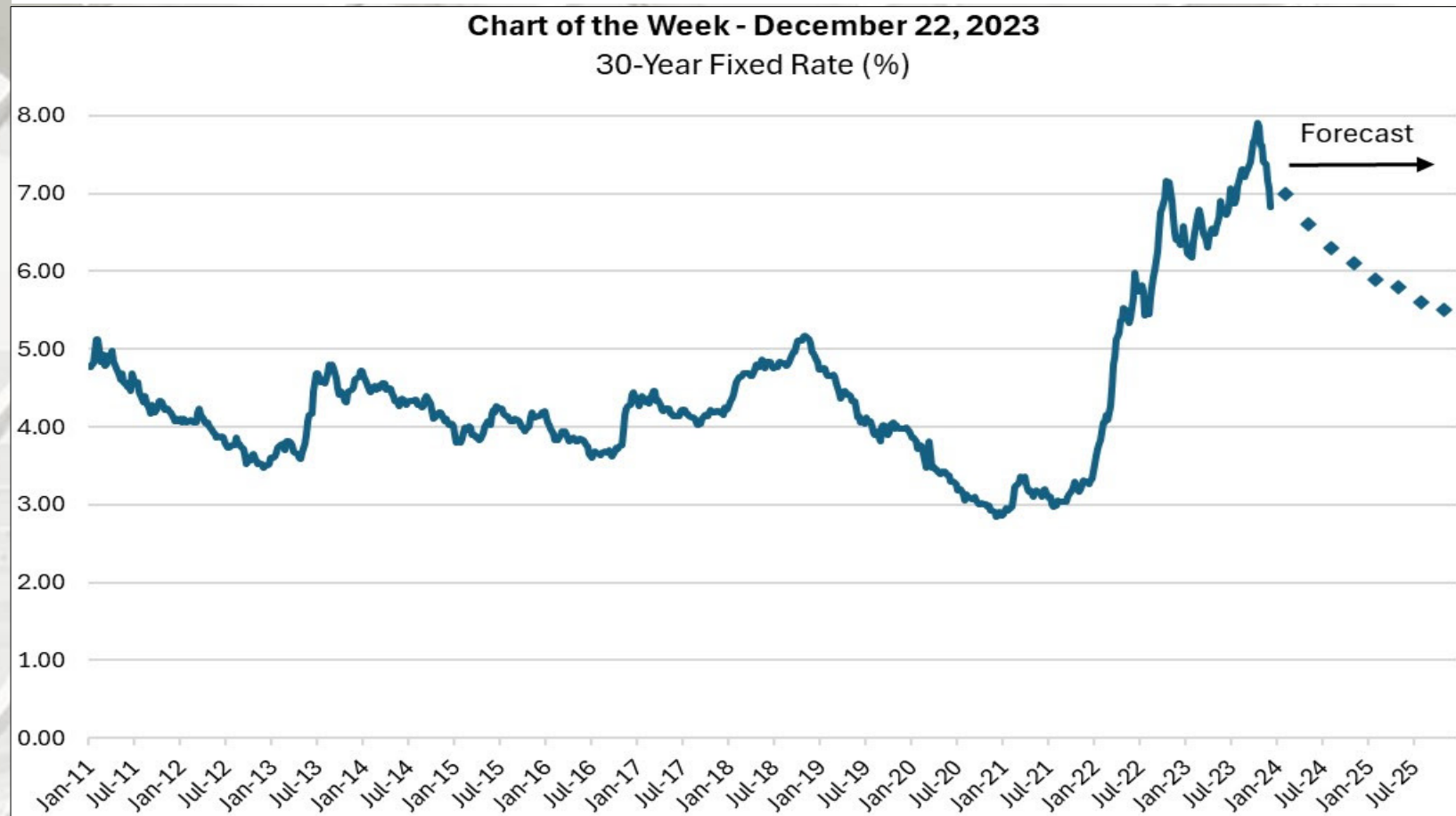
U.S. Housing

US Housing Supply Summary

146 Million Housing Units*
- Households* 91% (132mm units)
- Vacant* 9% (14mm units)

132 Million Households*
- Owned* 66% (87mm units)
- Rented* 34% (45mm units)

45 Million Total Rented Units*
- Apartments* 65% (29mm units)
- Single-Family Rental*† 31% (14mm units)
- Mobile Homes, Boats, Etc.* 4% (2mm units)
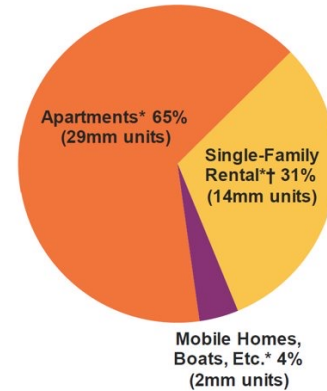
14 Million Single-Family Rental Units*† by Investor Type
- 1,000+ properties: 3%
- 100–999 properties: 3%
- 10–99 properties: 14%
- 1–9 properties: 80%

14 Million Total Vacant Units*
- Single-Family*† 56% (8mm units)
- Apartments* 34% (5mm units)
- Mobile Homes, Boats, Etc.* 10% (1mm units)
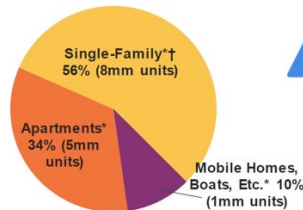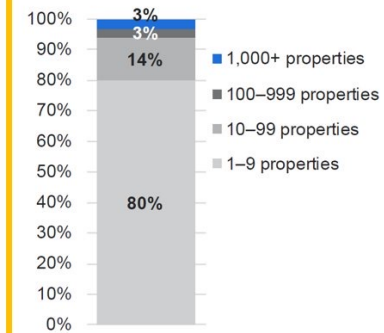
JOHN BURNS
RESEARCH & CONSULTING

*JBREC estimates using 2010 Census figures and trending data from ACS / HVS
†Single-family consists of attached and detached units.
Sources: Census Bureau; JBREC aggregation of public records data; John Burns Research and Consulting, LLC (Data: 3Q23, updated quarterly; Pub: Dec-23)

John Burns Research & Consulting LLC
U.S. Housing Supply

"Quick primer on US housing, with a focus on single-family rental ownership nationally and locally. To start, there are 146 million housing units in the US. Follow the charts left to right and you eventually get to 45 million rentals, 14 million of which are single-family." – Rick Palacios Jr., Director of Research, John Burns Research & Consulting LLC

2024 Housing Forecasts*

	Range	Median
Total starts:	1,277 to 1,420	1,378
Single-Family (SF) starts:	750 to 1,030	930
Multi-Family (MF) starts:	346 to 488	380

Organization	Total Starts	Single-Family Starts	Multi-Family Starts
APA-*The Engineered Wood Association*[a]	1,310	930	380
Bank of Montreal (BOM)[b]	1,380		
Deloitte Insights LLP[c]	1,382		
Fannie Mae[d]	1,277	914	346
Goldman Sachs[e]	1,335		
Mortgage Bankers Association (MBA)[f]	1,376	1,030	488
National Association of Homebuilders (NAHB)[g]	1,279	900	379

* All in thousands of units

2024 Housing Forecasts*

	Range	Median
Total starts:	1,277 to 1,420	1,378
Single-Family (SF) starts:	750 to 1,030	930
Multi-Family (MF) starts:	346 to 488	380

Organization	Total Starts	Single-Family Starts	Multi-Family Starts
National Association of Realtors (NAR)[h]	1,412	923	488
Raymond James[i]	1,400	1,025	375
RISI[j]	1,417		
Royal Bank of Canada (RBC)[k]	1,390		
Scotiabank[l]	1,360		
Toronto Dominion (TD) Bank Economics[m]	1,350		
Wells Fargo Securities LLC[n]	1,420	987	433

* All in thousands of units

References

a- APA, Housing Starts December 2023 (1/18/24). APA – The Engineered Wood Association. Tacoma, WA. 53 pps. (Subscription).

b- https://economics.bmo.com/media/filer_public/be/68/be6897f5-9a05-45b2-8152-882e7c1883f4/outlookus.pdf

c- https://www2.deloitte.com/us/en/insights/economy/us-economic-forecast/2023-q3.html

d- https://www.fanniemae.com/research-and-insights/forecast

e- https://www.resiclubanalytics.com/p/goldman-sachs-chief-economist-thinks-housing-affordability-strained-existing-home-sales-will-remain

f- https://www.mba.org/docs/default-source/research-and-forecasts/forecasts/2023/mff_dec23.pdf

g- https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/builders-forecasts/free-forecast/housing-and-interest-rate-forecast-121223-free.xls

h- https://www.realtor.com/research/2024-national-housing-forecast/

i- The Raymond James Financial Center. Housing, 2024 Housing Outlook, 2024 Homebuilding Outlook: Respect & Re-Rating Long Overdue. St. Petersburg, FL. 1/8/2024. 64 pp. (Subscription).

j- Random Lengths Yardstick. The monthly measure of forest products statistics (1/16/24). Eugene, OR. 34 pps. (Subscription).

k- https://thoughtleadership.rbc.com/wp-content/uploads/economy_us.pdf

l-https://www.scotiabank.com/ca/en/about/economics/economics-publications/post.other-publications.global-outlook-and-forecast-tables.scotiabank%27s-forecast-tables.2023.december-15--2023.html

m-https://economics.td.com/ca-forecast-tables#lt-us

n-https://wellsfargo.bluematrix.com/links2/html/07a44963-ccae-4684-9558-5d5d3a9051f0

2023 Housing Forecasts*

	Range	Median
Total starts:	1,100 to 1,560	1,360
Single-Family (SF) starts:	750 to 1,000	858
New SF house sales:	488 to 806	565

2022 Housing Forecasts*

	Range	Median
Total starts:	1,413 to 1,785	1,618
Single-Family (SF) starts:	1,120 to 1,250	1,190
New SF house sales:	470 to 924	905

2021 Housing Forecasts*

	Range	Median
Total starts:	1,233 to 1,605	1,440
Single-Family (SF) starts:	928 to 1,308	1,055
New SF house sales:	736 to 1,259	912

* All in thousands of units

U.S. Housing

Mortgage Bankers Association (MBA)

December New Home Purchase Mortgage Applications Increased 14.9 Percent

MBA and Census Estimates of New Home Sales
Seasonally adjusted, thousands

Legend: BAS · Census - Revised · Census - Initial
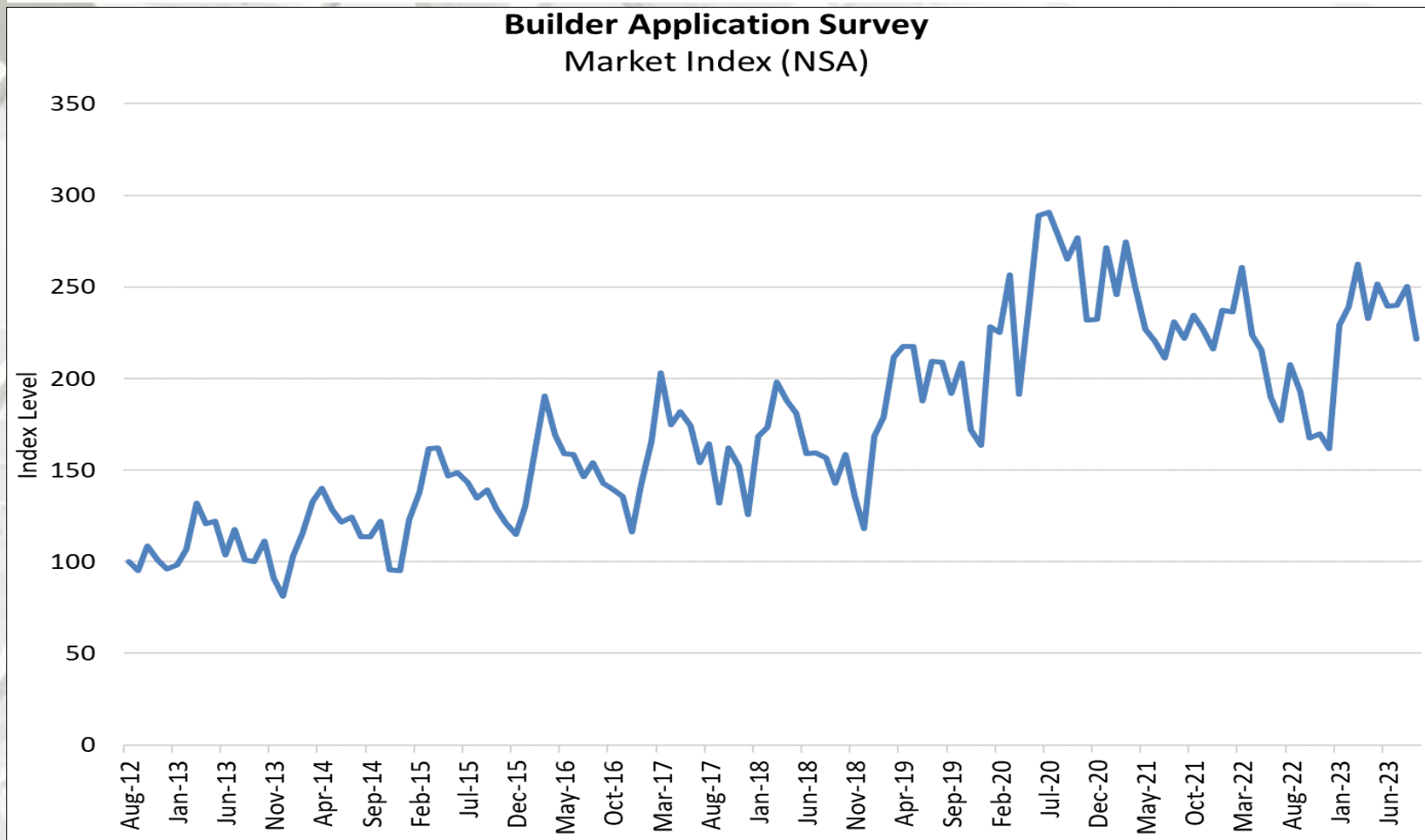
U.S. Housing Finance

Mortgage Bankers Association (MBA)

December New Home Purchase Mortgage Applications Increased 14.9 Percent

Builder Application Survey
Market Index (NSA)
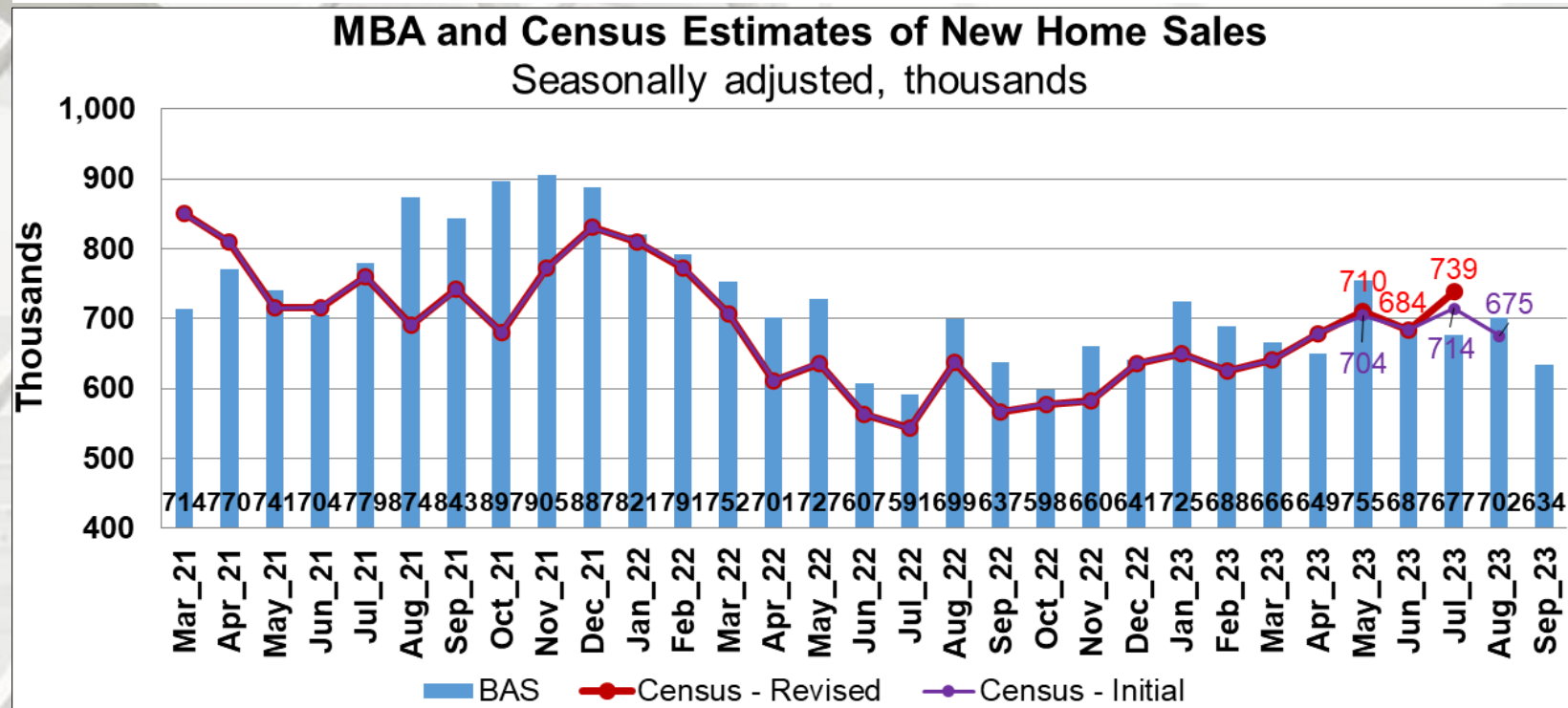
U.S. Housing Finance

Mortgage Bankers Association (MBA)
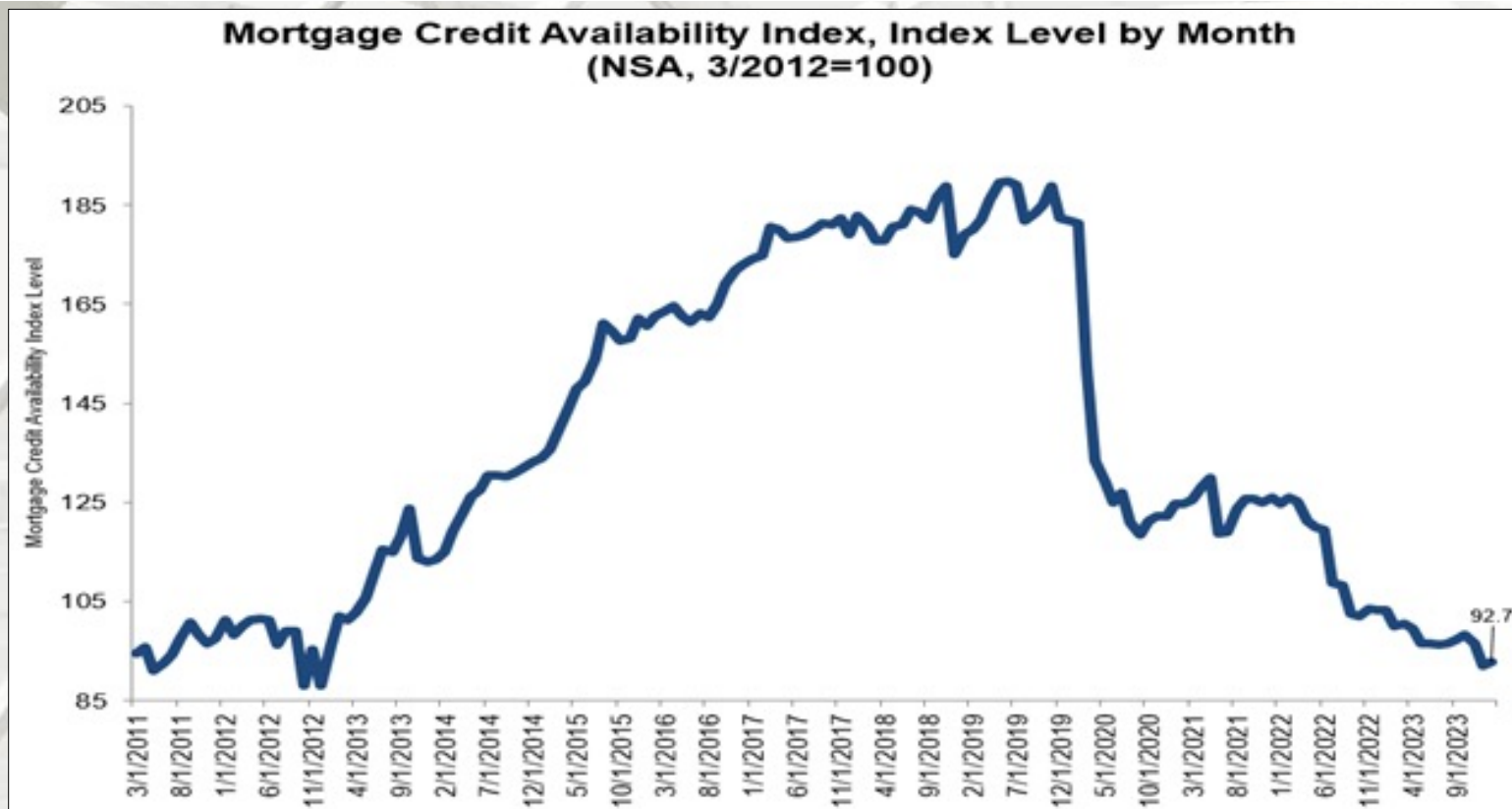
Mortgage Credit Availability Increased in January

"Mortgage credit availability increased in January 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 0.7 percent to 92.7 in January. 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 1.3 percent, while the Government MCAI decreased by 0.0 percent. Of the component indices of the Conventional MCAI, the Jumbo MCAI increased by 1.9 percent, and the Conforming MCAI rose by 0.2 percent.

There was a slight increase in credit availability in January, driven by a greater number of conventional loan program offerings. However, overall credit availability remained close to 2012 lows, and the conventional index was close to its record low in the series dating back to 2011. Even though there was an increase in cash-out refinance programs available, credit supply overall is tight. The challenging lending environment has pushed many lenders to reduce costs by cutting back on certain aspects of their business, including exiting origination channels, which has contributed to lower credit supply." – Joel Kan, Associate Vice President of Economic and Industry Forecasting, MBA

U.S. Housing Finance
Mortgage Credit Availability (MBA)

Mortgage Credit Availability Index, Index Level by Month (NSA, 3/2012=100)

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

U.S. Housing Finance Mortgage Credit Availability (MBA)

Mortgage Credit Availability Index (NSA, 3/2012 = 100)
Expanded Historical Series
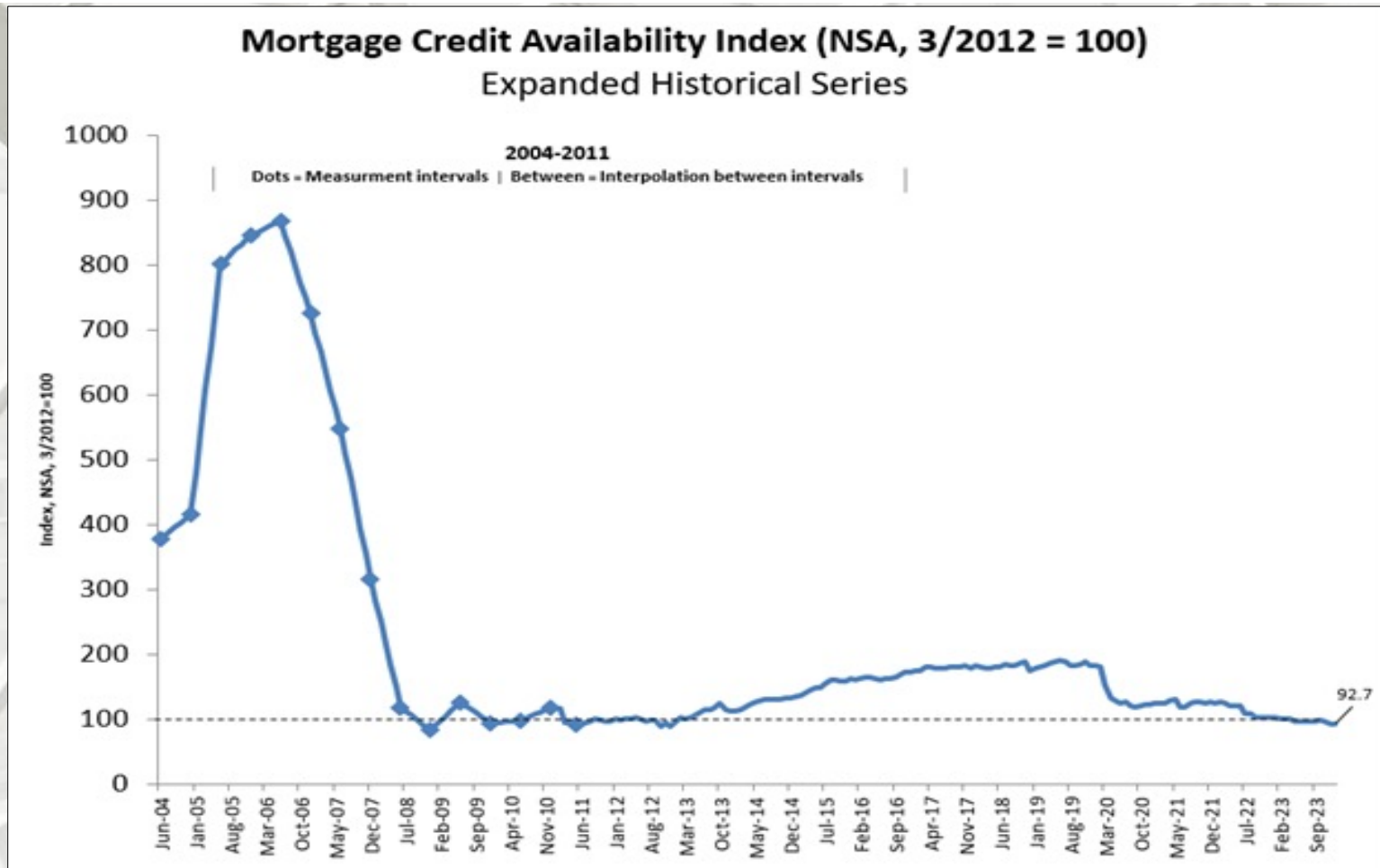
Source: *Mortgage Bankers Association; Powered by ICE Mortgage Technology*

MBA Mortgage Finance Forecast

MBA Mortgage Finance Forecast
January 19, 2024

	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2023	2024	2025	2026
Housing Measures																
Housing Starts (SAAR, Thous)	1,385	1,450	1,371	1,454	1,406	1,426	1,415	1,417	1,435	1,458	1,484	1,506	1,415	1,416	1,471	1,475
Single-Family	834	930	967	1,042	1,012	1,047	1,064	1,085	1,119	1,132	1,163	1,192	943	1,052	1,152	1,163
Two or More	552	520	403	412	394	379	351	332	316	326	321	314	472	364	319	312
Home Sales (SAAR, Thous)																
Total Existing Homes	4,327	4,250	4,020	3,868	4,018	4,236	4,437	4,616	4,760	4,832	4,894	4,905	4,116	4,327	4,848	4,991
New Homes	638	691	703	668	734	762	772	777	791	796	805	813	675	761	801	802
FHFA US House Price Index (YOY % Change)	4.6	3.3	5.5	5.7	5.7	5.3	4.7	4.1	3.6	3.4	3.2	3.3	5.7	4.1	3.3	3.9
Median Price of Total Existing Homes (Thous $)	366.7	397.5	400.9	387.6	394.1	397.5	393.2	389.4	388.5	391.9	393.7	395.1	388.2	393.6	392.2	390.8
Median Price of New Homes (Thous $)	434.8	418.7	428.9	426.2	428.3	431.9	432.6	430.5	431.9	436.6	437.3	438.5	427.1	430.8	436.1	429.2
Interest Rates																
30-Year Fixed Rate Mortgage (%)	6.4	6.5	7.0	7.3	6.9	6.6	6.3	6.1	5.9	5.8	5.7	5.5	7.3	6.1	5.5	5.4
10-Year Treasury Yield (%)	3.6	3.6	4.2	4.5	4.1	4.0	3.8	3.7	3.7	3.6	3.6	3.6	4.5	3.7	3.6	3.6
Mortgage Originations																
Total 1- to 4-Family (Bil $)	333	463	444	399	390	499	567	551	501	619	620	598	1,639	2,007	2,339	2,436
Purchase	267	371	363	324	304	389	432	411	346	461	456	436	1,325	1,536	1,699	1,782
Refinance	66	92	81	75	86	110	135	140	155	158	164	162	314	471	639	654
Refinance Share (%)	20	20	18	19	22	22	24	25	31	26	27	27	19	23	27	27
FHA Originations (Bil $)													197	213	213	204
Total 1- to 4-Family (000s loans)	895	1,239	1,165	1,034	1,003	1,267	1,428	1,381	1,258	1,524	1,517	1,455	4,333	5,079	5,754	5,790
Purchase	686	948	913	804	743	938	1,030	970	810	1,070	1,049	996	3,350	3,682	3,926	3,981
Refinance	210	291	252	230	260	328	398	410	448	454	468	459	983	1,397	1,829	1,809
Refinance Share (%)	23	23	22	22	26	26	28	30	36	30	31	32	23	28	32	31
Mortgage Debt Outstanding																
1- to 4-Family (Bil $)	13,671	13,767	13,822	13,879	13,931	13,988	14,050	14,117	14,190	14,264	14,343	14,425	13,879	14,117	14,690	14,783

Notes:
As of the August 2023 forecast, 2022 origination volume was revised based on the 2022 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
January 19, 2024

	2023				2024				2025				2023	2024	2025	2026
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Percent Change, SAAR																
Real Gross Domestic Product	2.2	2.1	4.9	0.9	-0.1	-0.4	1.0	1.3	1.6	1.5	1.7	1.7	2.5	0.5	1.6	1.7
Personal Consumption Expenditures	3.8	0.8	3.1	2.2	-0.1	-0.6	0.6	0.5	0.5	0.8	1.0	1.0	2.5	0.1	0.8	1.5
Business Fixed Investment	5.7	7.4	1.4	4.1	0.3	-0.1	0.2	0.9	1.2	1.0	1.4	1.4	4.7	0.3	1.3	1.5
Residential Investment	-5.3	-2.2	6.7	1.0	-1.0	-0.4	1.4	3.3	4.5	5.1	5.0	7.4	-0.1	0.8	5.5	1.3
Govt. Consumption & Investment	4.8	3.3	5.8	0.7	1.0	0.5	0.5	0.3	0.3	0.3	0.3	0.3	3.6	0.6	0.3	0.2
Net Exports (Bil. Chain 2012$)	-1048.8	-1039.0	-1043.1	-1064.9	-1080.4	-1064.5	-1025.8	-1008.6	-987.3	-966.4	-943.8	-921.0	-1049.0	-1044.8	-954.6	-867.5
Inventory Investment (Bil. Chain 2012$)	24.1	13.2	68.9	25.5	25.0	7.5	-7.7	9.2	30.9	40.9	48.6	55.5	32.9	8.5	44.0	61.9
Consumer Prices (YOY)	5.8	4.1	3.6	3.2	3.0	2.9	2.7	2.6	2.3	2.3	2.1	2.0	3.2	2.6	2.0	2.1
Percent																
Unemployment Rate	3.5	3.5	3.7	3.7	3.9	4.2	4.3	4.5	4.5	4.5	4.6	4.7	3.6	4.2	4.6	4.4
Federal Funds Rate	4.875	5.125	5.375	5.375	5.375	5.125	4.875	4.625	4.375	4.125	3.875	3.625	5.375	4.625	3.625	2.625
10-Year Treasury Yield	3.6	3.6	4.2	4.5	4.1	4.0	3.8	3.7	3.7	3.6	3.6	3.6	4.5	3.7	3.6	3.6

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:

Housing data, year-over-year, were mostly positive. Total and single-starts, total and single-family housing under construction, and existing house sales declined month-over-month. Year-over-year, multi-family starts and permits, total and single-family housing under construction, and existing house sales decreased . The influence of increased mortgage rates is evident, as aggregate costs have decreased affordability; thus, a reduction, to date, in total new and existing house sales for the 2023 calendar year.

Pros:

1) The desire to own a house remains strong.

Cons:

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

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